

— Nutrition & Healing —

THE ATLAS OF NATURAL CURES



Dr. Glenn S. Rothfeld

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Table of Contents

Part I: Cancer

- Chapter 1:** Toss your sunscreen and step out of the shadows! You can prevent skin cancer and still enjoy time in the sun this summer 3
- Chapter 2:** The cancer-fighting mineral you can't afford to ignore . . . 13
- Chapter 3:** Hybridized mushroom extract destroys cancer cells and provides powerful immune protection 19
- Chapter 4:** The “unimportant” molecule curing cancer: Do-it-yourself tips for boosting your levels—without Big Pharma's help 23
- Chapter 5:** The astonishing eggplant cure for cancer 33
- Chapter 6:** The mustard miracle that can wipe out deadly cancers . . . 37
- Chapter 7:** Prevent and beat prostate cancer with this powerful—and proven—plant pigment 41

Part II: Heart

- Chapter 1:** Could a stroke steal your future? Know your risk and prevent it from happening! 49
- Chapter 2:** The egg risk you need to know about before you order your next omelet 59
- Chapter 3:** How to drop your cholesterol level by as much as 134 points without drugs or deprivation. 61
- Chapter 4:** How to drop your blood pressure by 20, 30, or even 40 points—naturally 67
- Chapter 5:** Beyond cholesterol and blood pressure—two more heart risk factors you need to know about. 77
- Chapter 6:** Two signs on your body that may point to heart trouble. 81
- Chapter 7:** Five blood-flow secrets to slash your risk of heart attack and stroke. 83
- Chapter 8:** Beware of the statin drug trap. Lower cholesterol is making us old and sick 87
- Chapter 9:** A contaminant in your water may be clogging your arteries 91

Chapter 10: Testosterone testing: Important for heart health
in men and women 93

Chapter 11: Coenzyme Q10—a treatment for cardiomyopathy 95

Chapter 12: OPCs—what are they and how do they help your heart? . . 97

Chapter 13: The No.1 heart-protecting mineral 101

Chapter 14: Sweat your way to a healthier heart in
4 weeks or less 103

Part III: Pain

Chapter 1: Catch the culprit behind your arthritis pain 111

Chapter 2: The 100 percent solution for rheumatoid arthritis 119

Chapter 3: The simplest solution for gallbladder pain—
without surgery 127

Chapter 4: The nutrient “cocktail” that can wipe out
chronic pain and more 129

Part IV: Diabetes

Chapter 1: The hidden link between digestion and diabetes 135

Chapter 2: Do-it-yourself pain relief for diabetic neuropathy:
Even the “last resort” is natural and side-effect-free! 139

Chapter 3: Beat diabetes with this miracle spice! 143

Chapter 4: Get your type 2 diabetes under control...
without a single drug 149

Chapter 5: Maintain “perfect” blood sugar,
blood pressure, and cholesterol levels naturally 157

Part V: Digestion and Weight Loss

Chapter 1: Age and antacids—a double whammy against
your body’s optimal health 165

Chapter 2: The “youth hormones” that make
weight loss nearly effortless! 169

Chapter 3: Soothing the symptoms of IBS and colitis 177

Chapter 4: Is this hidden illness leaving you tired,
bloated and in pain? Cure it for good with a simple diet trick! 181

Part VI: Immune System

- Chapter 1:** Six simple steps to make your body “flu-proof”—no shot required! 189
- Chapter 2:** Everyday exposure to hidden parasites could be making you sick 193
- Chapter 3:** Forget the flu shot! Three natural flu-fighters you can rely on 199
- Chapter 4:** The common health problem that’s more serious than you think 203
- Chapter 5:** 5 ways to make sure you’ve had your last bout with the common cold—And 3 cures you never knew could work so well . . . 223
- Chapter 6:** Fight lupus without dangerous prescription drugs 231
- Chapter 7:** Stunning research reveals gut bug balance causing everything from diabetes to colon cancer! 233

Part VII: Women’s Health

- Chapter 1:** Forget your annual mammogram! New tool offers better, earlier breast cancer detection (and it’s pain-free, too!) 241
- Chapter 2:** The natural secret to great sex after menopause 247
- Chapter 3:** Breast cancer—stop the most feared disease among women from happening to you. 249
- Chapter 4:** Little-known cures for those all-too-common PMS problems 259

Part VIII: Men’s Health

- Chapter 1:** Drop the finasteride! The benefits—and risks—of natural prostate treatments 267
- Chapter 2:** The male side of the Great Hormone Debate: Is testosterone dangerous? 275
- Chapter 3:** Forget the Proscar propaganda—shrink an enlarged prostate the natural way 281
- Chapter 4:** Help for a lagging libido and potency problems—beyond Viagra 287
- Chapter 5:** Become “King of the Bedroom” again! Powerful three-part combo helps reverse erectile dysfunction 293

Chapter 6: Detect and reduce your prostate cancer risk with these simple steps 299

Part IX: Anti-Aging, Memory, Hearing and Vision

Chapter 1: The ICT Protocol for reversing and even curing Alzheimer’s 307

Chapter 2: Five ways to avoid that hearing aid 323

Chapter 3: The mineral breakthrough helping terminal patients defy death: And why you should be taking a little of it too 327

Chapter 4: Alzheimer’s breakthrough reveals an all-natural nutritional solution to protect your precious memories. 333

Chapter 5: “Clean” your brain and stop dementia and Alzheimer’s with these simple sleep trick 339

Chapter 6: The vitamin that erases 20 years of aging in 90 days 345

Chapter 7: Don’t go deaf, blind or lose your mind! Natural strategies for keeping your hearing, vision, and thinking sharp well into old age 351

Chapter 8: The secret to halting hearing loss: Start with your stomach 363

Chapter 9: Alzheimer’s disease: New hope for a “hopeless” situation 365

Part X: Essential Health Secrets

Chapter 1: Vitamin K: What’s it good for? 375

Chapter 2: Hidden heavy metal exposure could be killing you! 383

Chapter 3: Test yourself for hidden food allergies just by checking your pulse and weight 385

Chapter 4: This toxic crud could be hiding in your home, attacking your brain and making you sick! 387

Chapter 5: Send even the most stubborn infections—cold sores, toenail fungus, and more—into hiding for good. 395

Chapter 6: Harnessing the healing power of light 399

Chapter 7: Shocking News About Allergies and Asthma 417

Chapter 8: Killer appliances? 9 ways to protect yourself from the new pollution more deadly than lead poisoning 421

Chapter 9: New secrets for reading your body like a book.	429
Chapter 10: Warning: Unsightly varicose veins could be sending you warning sign. Try these 4 simple steps to send them packing	445
Chapter 11: From tooth decay to sinus infections: Sugar cane miracles that pack a powerful punch	451
Chapter 12: Keep killer stress at bay for mere pennies a day using this one simple vitamin secret.	455
Chapter 13: Soothing solutions for anxiety	459
Chapter 14: The great-tasting way to beat bladder and urinary tract infections	461
Chapter 15: Stomp out chronic fatigue and get back your old get-up and go	463
Chapter 16: The natural depression solution to try before St. John's wort	465
Chapter 17: Say goodbye to those dreaded "cottage cheese" thighs with my "Beat the Cellulite" plan.	467
Chapter 18: Breathe easy with these safe, natural asthma remedies . . .	473
Chapter 19: Wipe out migraines in minutes for less than \$10.	475
Chapter 20: A vitamin victory over psoriasis	477
Chapter 21: Heal cuts and bruises faster than ever	479
Alternative Health Resources	483
References	485

PART I
Cancer

Chapter 1:

Toss your sunscreen and step out of the shadows! You can prevent skin cancer and still enjoy time in the sun this summer

As the days are getting longer, the weather is getting warmer, and the dermatologists and sunscreen salesmen are getting down to business with their annual chorus. Like the best of self-proclaimed “saviors,” they threaten us with Skin Cancer Hell if we “sin” by exposing our bodies to the Great Sun Satan.

If some dermatologists had their way, we’d all dress like people in the Victorian era, covering up in ankle-length dresses and long pants whenever we’re outdoors, carrying parasols and wearing gloves whenever sunshine threatens to come too close, and having just the smallest bit of skin peeking out whenever we go swimming.

And sunscreen salesmen would like nothing more than for us to believe the only way to avoid skin cancer is by slathering every inch of exposed skin with SPF 10,000 (or thereabouts).

Sometimes I wonder if they think that humans were originally an underground species, with skins not adapted to the rays of the sun. Or perhaps we're all originally from some planet further from the sun—Mars or Jupiter maybe—where the sun's rays are weaker?

For some reason that continues to perplex me, they seem to forget that the sun has been around for billions of years (probably more), and human beings date back quite a ways as well—existing in times where the only clothing came from scraps of animal skin and there was no such thing as sunscreen.

Anthropology vs. dermatology: Are we on the wrong planet?

Knowing the history of the human race has given me a different (and sometimes unique) perspective on health care, including skin cancer prevention.

Anthropologists have determined that the earliest humans lived in Africa. The sun's intensity is much greater there, and people spent nearly all of their time outdoors wearing very little clothing. While it's likely that "early man" and "early woman" sought shade whenever the sun's heat was just too much, it's also likely that our remote ancestors got enormously more direct-skin sun exposure than we do now.

For hundreds of thousands of years, humans lived mostly outdoors, and, odds are, our skin is quite adapted to sun exposure—as long as we pay attention to the early twinges of sunburn.

And just to drive the point home, no anthropologist has ever reported finding anything even remotely resembling sunscreen along with the remains of prehistoric man, so let's move on and dispose of...

The sunscreen myth

You've probably seen pictures from the 1920s depicting women on the beach reveling in their newfound liberation by shedding inhibitions and what was, at the time, a shocking amount of clothing. Of course, we

men joined in the fun, too—and bathing suit manufacturers saved a lot on cloth. Sunscreen use was rare in the '20s compared to the present, but the skin cancer rate was notably very low.

Sunscreen use has risen every decade since then, and the rate of skin cancer has risen right along with it! No, I'm not claiming that sunscreen *causes* skin cancer, but the data shows that sunscreen doesn't do a terribly good job of *preventing* skin cancer, either. So, if you want to prevent skin cancer, what do you do?

Could your diet lead to skin cancer?

Before we became “civilized,” humans relied completely on whole foods. There were no processed or junk foods, no one added sugar to anything, and, of course, there were no food chemicals, herbicides, pesticides... you get the picture. As long as there was enough food to eat, nutrient deficiencies didn't exist except in areas of the world with specific soil mineral deficiencies. That's certainly not the case today! Nutritional deficiencies and “insufficiencies” (not an outright deficiency you could die from, but not enough to “get the job done” for all your body's needs, either) are absolutely rampant. Many of the most common deficiencies involve nutrients that can protect your skin from sun damage and cancer.

To sharply reduce your risk of skin cancer, what foods and specific nutrients are most important? The food list won't come as a surprise: Vegetables, nuts, beans, fish, eggs, and whole grains are first in line. Specific nutritional supplements include folic acid, vitamin A, vitamin B12, zinc, and vitamin C.

What do folic acid and your tax refund have in common?

Folic acid is destroyed rapidly by heat, cold, and exposure to light, including sunlight. So it's sunlight's destructive effect on folic acid in the skin, not the actual sun exposure itself, that accounts for a significant part of the skin cancer problem. Folic acid (along with vitamin B12 and zinc) is absolutely key to DNA reproduction and repair. When skin cell

DNA is damaged by errant or excess sunshine, intracellular enzymes dependent on folic acid, vitamin B12, and zinc get right to work repairing the damage, and the skin cell is much less likely to become cancerous.

For decades, folic acid has been the No. 1 dietary vitamin deficiency. If folic acid levels are low to begin with, sunshine can make the situation even worse. It's no wonder skin cancer rates have risen in response. By supplementing with the right amount of folic acid, you can ensure that your body has enough to offset the amount destroyed by the sun.

Just a few years ago, after considerable arm twisting, criticism from other government agencies, and congressional pressure, the FDA reluctantly mandated folic acid "enrichment" of certain foods. Unfortunately, food "enrichment" is much like your tax refund—a few dollars given back each year to make you feel better about forking over a big chunk of every paycheck to the government: It's enough to quiet most complaints, but not enough to do much good. So folic acid still competes with essential fatty acids for the No. 1 spot on the vitamin deficiency list. And folic acid deficiency and insufficiency is a major contributor to skin cancer risk.

At the risk of sounding like your mother, I'll tell you once again: Eat your vegetables! It really is the best way to ensure that you get adequate folic acid to reduce your risk of skin cancer. Spinach and other deep green vegetables are particularly good sources. Other good food sources of folic acid include brewer's yeast (it's actually the best source), beans (especially lima beans), cantaloupe, watermelon, and wheat germ. Liver is a good source, too, but it *must* be from entirely organically raised animals.

Even if you already eat the foods listed above, it's a good idea to take a folic acid supplement too. Use at least 1 milligram (1,000 micrograms) daily, more if you like to be out in the sun or have a family history of skin cancer. Unfortunately, you won't find folic acid supplements in 1,000 microgram quantities because our "guardians" at the FDA limit the amount that can be put into one tablet to 800 micrograms. But there have been no recorded folic acid overdoses, so you can go ahead and

take two or more 800-mcg tablets without worrying about taking too much—you can't!

Bringing vitamin A out of the shadows and into the light—literally!

Aside from seeing it listed on the label of your daily multivitamin/mineral combination, you probably don't spend a whole lot of time thinking or worrying about vitamin A. But vitamin A is a crucial element in the war against skin cancer.

Vitamin A is very similar to folic acid in its connection to skin cancer. Like folic acid, vitamin A assists with cellular repair and lack of this nutrient can result in the cellular damage dermatologists blame only on the sun's rays.

The protective metabolite of vitamin A is called retinoic acid. (When we take vitamin A, our body naturally metabolizes some of it into retinoic acid.) Researchers have reported that ultraviolet irradiation from the sun causes a major loss of retinoic acid receptors in skin cells.¹ But if levels of vitamin A are sufficient, more retinoic acid can be formed, which appears to protect retinoic acid receptors, and much of the "sun damage" is prevented. The bottom line: Skin cells can repair themselves better with sufficient retinoic acid, which is only possible with sufficient vitamin A. (Using retinoic acid itself is the very best way to use vitamin A to protect against sun damage, but it must be done carefully.

While vitamin A may not always catch your attention, I'm sure you've heard of carotenoids, especially beta-carotene. Carotenoids are vitamin A precursors: Your body must break them down to get vitamin A, and, unfortunately, like many other things, the older we get, the more this process slows down. So it's best to make sure you get some actual vitamin A, not just beta-carotene.

There are relatively few dietary sources of vitamin A as vitamin A itself (and not carotenoids). Eggs, liver (from organically raised animals only), and fish liver oils are the most widely available and healthful sourc-

es. Carotenoids are present in all yellow-orange and green vegetables, but don't rely on them for your entire vitamin A intake.

It's important to keep in mind that while it's nearly impossible to truly overdose on beta-carotene (although you can turn a very interesting carrot color if you take very large amounts), you can overdose on vitamin A itself, so you should be very careful about quantities. Symptoms of vitamin A overdose include headache, very dry skin, loss of hair at the outer edges of the eyebrows, and pain in the "long bones," just to note a few. Quantities up to 75,000 IU are generally safe, but you don't need to take quite that much for skin cancer prevention. To lower your risk of skin cancer, take 40,000 IU of vitamin A daily. (Don't be afraid of taking or eating extra carotenoids such as beta-carotene along with a vitamin A supplement. Even if your body already has enough vitamin A, extra carotene *will not* cause a vitamin A overdose.)

Do you have this risk factor for skin cancer? The answer might be written on your fingernails

Although zinc is a well-known supplement for a variety of skin conditions (eczema and acne are among the best known) its potential to reduce skin cancer risk is a well-kept secret, even among many skin cancer researchers. But if you remember zinc's critical role (along with folic acid and vitamin B12) in helping repair damaged DNA, it makes sense that zinc will help damaged skin cells restore themselves to health before the damage leads to cancer. And it also makes sense that if your body has a deficiency of this mineral, it won't have all the tools necessary to get the repair job done.

In the early 1960s, the USDA (the federal "agriculture department") published a map showing that 31 states had insufficient levels of zinc in their agricultural soils for optimal crop growth. The situation has only worsened in the 40 years or so since! You don't need me to tell you (but I'll remind you anyway) that if there's not enough zinc in the soil for optimal crop growth, then there certainly won't be enough zinc in those crops to ensure optimal health in the people eating them.

Patients are usually surprised to learn that zinc deficiency is sometimes literally written on their bodies in what might seem like an unlikely place: The fingernails. Go ahead and take a look at your own fingernails right now. Do you see any little white spots? These are “zinc deficiency spots,” first identified and publicized by Dr. Carl Pfeiffer. Zinc is most “used up” when a large mass of cells are rapidly growing and dividing, which happens to the greatest extent during puberty, so teenagers are particularly at risk for zinc deficiency and insufficiency. But unlike many of the other aspects of puberty, this isn’t one that you can simply thank your lucky stars to be finished with. Zinc deficiency can happen at any age. And it’s important to keep in mind that zinc deficiency or insufficiency more often occurs *without* the telltale “zinc spots,” so even if you don’t see any on your fingernails, you should still consider taking extra zinc as extra insurance against skin cancer.

The best food sources of zinc—by far—are oysters. I don’t know about you, but I just haven’t been able to develop a taste for these slithery mollusks, so I usually rely on herring and other seafood, eggs, liver (yes, organic only), and beef, which are all good zinc sources. The best vegetable sources of zinc include sunflower seeds, nuts, mushrooms, and whole grains.

Regardless of how many of the foods above you decide to incorporate into your diet, you should also take 25 to 30 milligrams of zinc (picolinate or citrate) in supplement form each day for the best chance of lowering your risk of skin cancer. To prevent zinc-induced copper deficiency, take 2 milligrams of copper along with the zinc. Many good multiple vitamin/mineral combinations already contain these amounts, so there may be no need to buy additional supplements. But check the quantities on the label of your multi to be sure.

Eating meat may reduce your skin cancer risk

The final member of the “DNA repair group” that can help you reduce the risk of skin cancer is vitamin B12. But do you get enough? I worry that many patients put themselves at significant risk for B12

deficiency by listening to the nutrition “experts” who advise eliminating most animal protein from the diet.

My concern lies in the fact that the vitamin B12 in our diets is almost exclusively from animal sources. Liver (organic) is far and away the best source, but other organ meats, regular cuts of meat in general, and seafood are good sources too. There are very, very few plant sources of B12 other than algae, chlorella, and spirulina. Don't get me wrong, I'm not arguing against vegetarian diets (they're actually best for some people), but if you follow such a diet, be very careful to take adequate amounts of vitamin B12 and iron.

While the possible lack of this nutrient in the diet is an important aspect to consider, it isn't the major problem with vitamin B12 nutrition. The biggest problem is with the digestion and absorption of the vitamin.

Hypochlorhydria, poor stomach function with inadequate production of hydrochloric acid and pepsin, (which happens increasingly with age) is such a common—and often ignored—problem that I feel it's necessary to remind you about it as often as I can. In this case, you need to know that hypochlorhydria is the major cause of vitamin B12 deficiency and insufficiency.

I could go on and on about this problem. So, I won't write any more about it here but recommend that if you're over 40, have your stomach acid levels tested and take the necessary steps to correct any imbalances.

In the meantime, take at least 500 micrograms of vitamin B12 daily. You can do so worry-free, since, as with folic acid, it's nearly impossible to overdose.

Vitamin C: Stress relief for your skin

Even though our ancestors have genetically prepared us to handle exposure to sunlight, intense or prolonged exposure does impose a certain amount of extra stress on your skin. For most creatures, this isn't a problem because their bodies produce extra vitamin C naturally in response to any

stress. So when they remain in the sun for long periods of time, the *internal* production of vitamin C is stepped up and it is then “rushed” to the skin to help prevent damage and repair any that may have already occurred. But humans are among the “select” few species to have a unique genetic defect that prevents our bodies from making vitamin C internally under any circumstances, stress or otherwise—so we must make sure we get adequate amounts from supplements and food sources like fruits and vegetables.

(Just a quick bit of trivia: We share our vitamin C defect with gorillas, monkeys, chimps, and other primates, which you may have guessed, since their internal makeup is very similar to ours. But I’ll bet you never thought you shared a genetic link with guinea pigs! They’re among the very few other species that have this internal shortcoming.)

If you know you’re going to stress your skin with sunshine, make sure to take at least an extra gram of vitamin C twice daily—and more if you’re on the beach in a tropical environment. (It’s the least you can do for being lucky enough to go on such a getaway!)

Damage control and antioxidants

The word “antioxidant” is relatively new on the medical scene, but it describes nutrients that have been around forever. For example, all of the specific nutrients you’ve read about so far are antioxidants to one degree or another. I’ve always suspected that the “powers that be” in academic medicine coined the term and popularized it as the “latest breakthrough” in order to cover up their possible embarrassment at finally being forced to agree with all us “health food nuts” that vitamins, minerals, and other nutrients can prevent and treat disease.

But “antioxidant” has some actual meaning when describing a specific function these nutrients share: Slowing or preventing oxidative damage. One example of oxidative damage is the kind caused to your skin cells by excess or prolonged exposure to sunlight.

For this reason, other antioxidant nutrients have great potential for lowering your risk of skin cancer. First among these is vitamin E, but the

list of potential skin-protective antioxidant nutrients is incredibly long. In addition to the specific recommendations made in this chapter look for a well-rounded antioxidant formula at your local natural food store or compounding pharmacy to lower your risk of skin cancer even further.

Giving the blessing to bask

Ignore the chorus of dermatologists who are undoubtedly good at many things they do but have forgotten that we belong on Earth, descended from tens of thousands of generations who never used sunscreen but rarely got skin cancer. Being in the sun is good for you! It's one of the places you, your children, and grandchildren belong! So, as long as you take the right dietary precautions and heed your skin's warning twinges of sunburn, go ahead and soak up some rays.

Chapter 2:

The cancer-fighting mineral you can't afford to ignore

If someone had predicted 30 years ago that iodine would become one of the most important breast cancer treatments, I doubt many people would have believed it. And they would have been right—it *isn't*. In fact, it's hardly used at all. But it should be.

Iodine kills breast cancer cells without killing off normal cells in the process. In other words, it's ideal for both the treatment *and* prevention of breast cancer.

Chances are your doctor hasn't heard of this. (I'll tell you why in just a minute.) So if you want the treatment—and believe me, you should—it's up to you to share this information with your doctor.

Solid research conveniently ignored

In the 1960s and 70s, pioneering iodine researcher Benjamin Eskin, M.D., reported time and again that iodine is a key element in breast health.

In one of his studies, Dr. Eskin demonstrated that deliberately blocking breast cells from access to iodine resulted in precancerous changes—

changes that were aggravated when those same cells were exposed to either estrogens or thyroid hormone. Surprisingly, in the absence of iodine, thyroid hormone appeared to be more likely than estrogen to produce abnormalities in breast cells.¹

In another report, he noted that when breast tissue cells are lacking in iodine, the cells are more likely to be abnormal, precancerous, or cancerous. He said, “Iodine-deficient breast tissues are also more susceptible to carcinogen action and promote lesions earlier and in greater profusion. Metabolically, iodine-deficient breasts show changes in RNA/DNA ratios, estrogen receptor proteins.” He concluded that: “[Iodine] presents great potential for its use in research directed toward the prevention, diagnosis, and treatment of breast cancer.”

Despite its obvious potential, not much has been done with this treatment over the past 30 to 40 years—at least not in these United States. Since iodine isn’t patentable (and is therefore unlikely to be “approved” for use to prevent or treat breast cancer), Dr. Eskin’s work has been ignored. Patent medicine companies simply looked elsewhere for profits. Sadly, since most mainstream doctors are dependent on patent medicine company reps, the doctors have been kept in the dark regarding this potential use for iodine.

Over the past two years, though, researchers in Mexico and India (where low-cost, unpatented medicine is a necessity) have begun further investigations into iodine’s potential as a breast cancer treatment. So far, all of their results confirm Dr. Eskin’s original research: Iodine directly kills many types of human breast cancer cells, and it doesn’t kill healthy cells in the process.

Traveling beyond the border for natural cancer cures

In 2005, researchers from the Autonomous National University in Juriquilla, Mexico, reviewed evidence showing that iodine supports breast health by slowing or preventing the spread of cancerous cells. They said, “In animal and human studies, molecular iodine [I(2)] supplementation exerts a suppressive effect on the development and size of both

benign and cancer neoplasias... Iodine, in addition to its incorporation into thyroid hormones, is bound into antiproliferative iodolipids [iodinated lipids with anti-cancer activity] in the thyroid called iodolactones, which may also play a role in the proliferative control of the mammary gland.” They concluded that breast cancer patients should consider supplementing with I2 in addition to their traditional breast cancer therapy.²

In June 2006, a group from the Sanjay Ghandi Institute of Medical Sciences in Lucknow, India, found that iodine is cytotoxic (deadly) to several human breast cancer cell lines, including (for the technically inclined) MCF-7, MDA-MB-231, MDA-MB-453, ZR-75-1, and T-47D. When iodine was applied to human blood cells (monocytes), it inhibited growth and proliferation, but it didn’t kill the cells.³

Then, in December 2006, the group in Mexico tested the effect of iodine on the MCF-7 form of human breast cancer cells. They found that iodine (but not iodide), along with an iodinated fatty acid, inhibited the MCF-7 cancer cells. At the same time, the iodine neither harmed nor inhibited fibroblasts—normal human connective tissue cells that help to support breast tissue and other tissues throughout the body. Other technical details led the researchers to suggest that iodine may become active against cancer cells when it is bound to certain lipids or proteins that are normally present in the breasts.⁴

A safe adjunct treatment to conventional cancer therapies

These recent research reports give new hope and an added tool for breast cancer patients. It’s true that the research isn’t conclusive at this point, but you don’t need to wait for academic and scientific certainty—which will likely take many more years—to try out the benefits for yourself.

If you have breast cancer and are undergoing regular treatment, adding iodine to your treatment plan will only increase your odds of a favorable outcome—and it’s perfectly safe. Numerous studies have proven that iodine (and its iodide form) are among the safest of all the elements.

In one case, a 54-year-old man mistakenly drank 600 ccs (over 20 ounces) of a saturated solution of potassium iodide—100,000 times the recommended daily allowance. The initial reaction was a bit scary: He developed swelling in his neck, mouth, and face, and he experienced transient heart rhythm abnormalities—but he recovered uneventfully.⁵

In another instance, a researcher had 2,400 patients with asthma take 5,000 milligrams of potassium iodide daily on a cycle of four days on followed by three days off. Only 12 of the individuals (1/2 percent) became hypothyroid as a result, and four developed swollen thyroid glands. There was no report of any adverse reaction among the rest.

Even though it's generally safe, some individuals are sensitive to iodine and/or iodide. There have been anecdotal reports of iodide's causing auto-immune thyroiditis, hyperthyroidism, and hypothyroidism. Too much iodine in a few individuals has caused iodism—an acne-like rash, a runny nose, and a bad taste in the mouth, all of which went away when the dosage was reduced or eliminated.

But the possible consequences of unchecked breast cancer are considerably more likely—and, of course, much worse—than experiencing a negative reaction to iodine. So if I were you, I'd give it a try.

Rub away your breast cancer?

A suggestion for you and your doctor to consider: Put the treatment right onto the problem! Mix a solution of 50 percent iodine/50 percent DMSO and rub it directly onto your breast as near as possible to where the cancer is (or used to be). The DMSO will ensure penetration deep into the tissue. A 70-percent DMSO solution is widely available, and iodine is available by prescription as Lugol's Iodine and in natural food stores as Tri-iodide (from Scientific Botanicals). If you're worried about the breast cancer spreading, you can also rub the mixture into the area under the arms that is rich in lymph glands (nodes) where breast cancer spreads first.

But please don't do any of the above without consulting a physician skilled and knowledgeable in the use of high-dose iodine!

You should also be sure that your physician monitors your thyroid function and gives you other nutrient suggestions while you use iodine as an adjunct to your regular breast cancer treatment. (To find a physician, see the Alternative Health Resources section on page 485 or check with the International College of Integrative Medicine, www.icimed.com, (419)358-0273.)

Chapter 3:

Hybridized mushroom extract destroys cancer cells and provides powerful immune protection

By: Michele Cagan, Health Sciences Institute

Until now, the only way to get access to this remarkable immune booster was to live in Japan. For the last five years in Japan, people with cancer, AIDS, and other life-threatening illnesses—as well as healthy people who want to stay that way—have been revving up their immune systems, destroying tumor cells, and preventing cancer and other illnesses with a powerful extract called AHCC (activated hexose correlate compound). Now, AHCC is available to consumers in the United States.

AHCC is an extract of a unique hybridization of several kinds of medicinal mushrooms known for their immune-enhancing abilities. On their own, each mushroom has a long medical history in Japan, where their extracts are widely prescribed by physicians. But when combined into a single hybrid mushroom, the resulting active ingredient is so potent that dozens of rigorous scientific studies have now established AHCC to be one of the world's most powerful—and safe—immune stimulators.

In vitro animal and human studies confirm that AHCC effectively works against and, in some cases, even prevents the recurrence of liver cancer, prostate cancer, ovarian cancer, multiple myeloma, breast cancer, AIDS, and other life-threatening conditions, with no dangerous side effects. In smaller doses, AHCC can also boost the immune function of healthy people, helping to prevent infections and promote well-being.

Calling up your first line of defense

Our immune systems stand between us and the rest of the world. Without it, our bodies would be overrun by bacteria, viruses, parasites, fungi, and other invaders, infections would rapidly spread, and cancer cells would proliferate. Like a highly responsive and well-coordinated army, our immune systems are composed of a variety of specialized immune cells that identify, seek out, and destroy microbes, pathogens, and tumor cells.

First on the scene of possible trouble are the phagocytes and natural killer (NK) cells, which respond quickly to potential threats. Often referred to as the body's "front-line of defense," these cells are constantly on the lookout for any suspicious substances. NK cells latch onto the surface of substances or the outer membranes of cancer cells and inject a chemical hand grenade (called a granule) into the interior. Once inside, the granules explode and destroy the bacteria or cancer cell within five minutes. Itself undamaged, the NK cell then moves onto its next victim. In its prime, a NK cell can take on two cancer cells at the same time, speeding up the process.

Recent research shows that as we age, our immune systems function less efficiently. In particular, the ability of our NK cells to respond quickly and effectively declines with age and illness. When NK cells lose their ability to recognize or destroy invaders, health can deteriorate rapidly. Moderately low to dangerously low NK cell activity levels have been found in people with AIDS, cancer, immune deficiency, liver disorders, various infections, and other diseases. Because measurements of NK cell activity are closely correlated with one's chances of survival, anything that

helps increase NK cell activity may help people treat, recover from, and/or prevent these illnesses.

Research finds remarkable immune system boost in multiple ways

Scientific studies of the extract AHCC, published in respected peer-reviewed journals such as *International Journal of Immunology*, *Anti-Cancer Drugs*, and *Society of Natural Immunity*, have established the health benefits and safety of AHCC more conclusively than nearly any other natural supplement. What is especially remarkable about AHCC is that it consistently and effectively boosts immune system function. Specifically, AHCC:

- Stimulates cytokine (IL-2, IL-12, TNF, and INF) production, which stimulates immune function.
- Increases NK cell activity against diseased cells as much as 300 percent.
- Increases the formation of explosive granules within NK cells. The more ammunition each NK cell carries, the more invaders it can destroy.
- Increases the number and the activity of lymphocytes, specifically increasing T-cells up to 200 percent.
- Increases Interferon levels, which inhibits the replication of viruses and stimulates NK cell activity.
- Increases the formation of TNF, a group of proteins that help destroy cancer cells.

These dramatic immune effects translate into profound health benefits. A 1995 clinical trial reported in the *International Journal of Immunotherapy* showed that 3 grams of AHCC per day significantly lowered the level of tumor markers found in patients with prostate cancer, ovarian cancer, multiple myeloma, and breast cancer. This study documented

complete remissions in six of 11 patients and significant increases in NK cell activity in nine of 11 patients. T- and B-cell activity levels also rose considerably.

AHCC now available in the United States

After years of successful use in Japan, AHCC is available in the United States as the active ingredient in a product called ImmPower. Distributed by The Harmony Company, ImmPower comes in gelatin capsules containing 500mg of AHCC (proprietary blend).

ImmPower can be taken in preventive or therapeutic doses and should be discussed with your personal physician. For prevention, the recommended dose is 1 gram per day taken as one 500mg capsule in the morning and again at night. This dose will help increase NK cell activity and support immune system functioning for good health and general well-being. For those with cancer, AIDS, or other life-threatening conditions, the research indicates a therapeutic dose of two capsules in the morning, two at mid-day and two at night for a total of 3 grams per day to jump start NK cell activity. After three weeks, the dose can be reduced to 1 gram per day (one capsule in the morning and one at night), to maintain the increased NK cell activity level.

Chapter 4:

The “unimportant” molecule curing cancer: Do-it-yourself tips for boosting your levels—without Big Pharma’s help

You may have read about Panzem®, one of “Big Pharma’s” aggressive moves into bio-identical hormones. But for decades before the pharmaceutical industry changed its name and spent hundreds of millions of dollars trying for FDA “approval” Panzem was actually known by its *real* name, 2-methoxyestradiol.

For much of that time, no one really knew the function of 2-methoxyestradiol, and since there are such tiny quantities of it in our bodies, it was dismissed as “unimportant” (as scientists so often do when they don’t yet know what one of Nature’s “minor” molecules is for).

But now the gold rush of research is on for 2-methoxyestradiol, because it appears that it may be able to actually cure—or at least significantly slow—many types of cancer, including some of the most commonly feared forms, including prostate, breast, and ovarian.

An “inactive” hormone shows its true cancer-fighting potential

As usual with patent medicine research, the emphasis (and the rush) is on the “gold” that can be produced by selling an “approved” form of this entirely natural molecule (at an unnaturally high price), rather than learning how to work with Nature as closely as possible, which would offer the most benefit at the least possible cost to patients everywhere. But that’s just one of many “fatal flaws” of the current “health care” system here in these United States. And even though that’s unlikely to change anytime soon, we still may be able to salvage something from this situation.

Before turning the spotlight on 2-methoxyestradiol itself, it’s always important to have a little bit of general background on how these things work in the body. Estrogens and androgens are steroid hormones (Nature’s own original steroids, not the “extraterrestrial-molecule,” pumped-up-to-be-patentable, pseudo-steroids currently scandalizing professional athletics). These natural steroids are produced by the ovaries or testes, adrenal cortices, and other body tissues of both men and women.

But, too much estrogen, especially too much of the “wrong kind” of estrogen increases the risk of new cancers and promotes the development of any tumors that are already present. This occurs primarily when two of the major forms of estrogen, estradiol and estrone, follow a pathway that metabolizes them into estrogen compounds that promote tumor formation. Other pathways produce estrogen metabolites that protect against tumors.

As it turns out, 2-methoxyestradiol isn’t inactive, as the “experts” once assumed.¹ In fact, it’s one of the most potent anti-carcinogenic estrogen metabolites. This metabolite is formed from the hydroxylation of 17 β -estradiol followed by O-methylation in the liver.^{2,3} (I know that’s highly technical, but remember the word “methylation” for later.)

Some recent studies have shown that 2-methoxyestradiol inhibits the growth of prostate cancer cells by inducing apoptosis (cell “suicide”)

and preventing tumor growth in rapidly growing cells.⁴ It showed similar benefits for both breast⁵ and prostate cancer⁶ when it was used in combination with other chemotherapeutic therapies.

And speaking of its role among chemotherapy drugs, not only does 2-methoxyestradiol have potent effects against pancreatic and gastric cancers that have become resistant to other chemotherapeutic drugs,⁷ but it also reduced the amount of other chemotherapeutic drugs needed in cases of ovarian cancer by enhancing their anti-tumor effects.⁸ Researchers have seen similar results using 2-methoxyestradiol in many other kinds of cancer, including osteosarcoma,^{9,10} leukemia,¹¹ and chondrosarcoma, a type of cancer affecting the cartilage.¹²

In addition to promoting apoptosis in cancer cells and working with chemotherapy drugs to boost their effects with lower doses (which, hopefully, will help minimize the harsh effects of these drugs), 2-methoxyestradiol also works against cancers by inhibiting angiogenesis, the formation of new blood vessels, which is how many cancers nourish themselves.^{13,14} To top off this roster of benefits, 2-methoxyestradiol has also shown the ability to inhibit the spread of cancer through metastasis.

All of these various approaches to fighting cancer (and likely some that haven't even been discovered yet), make 2-methoxyestradiol an extremely promising tool for treating the disease at many different stages.^{15,16}

Giving Nature the cancer-curing credit it's due

The study results I listed above are really just the tip of the proverbial iceberg when it comes to the clinical trials being done on 2-methoxyestradiol. As a matter of fact, another “2-methoxyestradiol might cure cancer” study was released—and made quite a splash in the media (probably because it was done at one of the most mainstream of mainstream institutions, the Mayo Clinic). The press report started:

“A new study of an estrogen-derived drug shows promise as a treatment for breast cancer and breast cancer metastases to bone.

A drug that has shown promise in treating sarcoma, lung and brain cancers, demonstrates that the drug may also be effective in treating breast cancer, in particular the spread of breast cancer.”¹⁷

I’m sure you’ve noticed the typical patent medicine company language “spin” right away. 2-methoxyestradiol is a natural estrogen, not a “drug,” but the word “drug” is used three times in the first two sentences. And the spin didn’t stop there.

“[Mayo Clinic researchers] studied the effect of 2-methoxyestradiol on the bone...In breast cancer, the cancer commonly lodges in the bone, destroying it in a debilitating painful process called osteolysis. Osteolysis can lead to bone fractures and causes patients to feel tired, or even to lose consciousness.”

According to one of the researchers, 2-methoxyestradiol is potentially very important in the treatment of breast cancer metastatic to bone because it has few of the unpleasant side effects of most chemotherapy drugs and targets both bone resorption and the cancerous tumor cells. According to another researcher, “We were expecting the ‘drug’ (quotation marks added) to have an effect, but we were not expecting to have as big of an effect as it did.”

I suppose getting the mainstream to credit Nature instead of “drugs” is too much to hope for. But at least they haven’t tried twisting all-natural 2-methoxyestradiol into a patentable, space-alien version—yet.

And these researchers did make one other bit of progress: They appear to be among the first to notice that swallowing steroids is not Nature’s preferred route of administration. Of course, that should have been obvious from the start to any M.D., Ph.D., or intelligent student of the human body. But, obvious or not, nearly all other researchers have had their volunteers swallow 2-methoxyestradiol, which may be one of the reasons such enormous doses have been required in the research to-date. According to the news report on the Mayo Clinic study:

“Clinical trials of 2ME2 for breast cancer patients are in progress. These trials are based on an oral version of 2ME2 to treat primary tu-

mors, but this method has limitations as the oral version of 2ME2 is poorly suited to getting into the blood system and reaching tumors. Researchers resolved this problem by delivering 2ME2 by injection and found it was much more effective.”

To put it simply, the Mayo Clinic study found that 2-methoxyestradiol:

- Effectively targets breast cancer cells
- Prevents the spread of breast cancer cells to bone
- Protects bone from osteolysis, which is a type of bone metastasis in which the bone is eaten away by cancer cells.
- Is much more effective in smaller quantities when not swallowed, but (in this case) injected.¹⁸

Safety in numbers— and larger-than-normal doses

The Mayo Clinic study may be the most recent—and accurately conducted—research on 2-methoxy-estradiol so far, but there are lots of other studies on this estrogen metabolite as well that show just as much promise, even with some wrinkles in the methodology.

In a phase I clinical trial of 2-methoxyestradiol in 15 women with metastatic breast cancer, 10 patients stabilized in their disease progression and two reported reductions in bone pain and the use of painkillers. And there were no adverse effects from daily oral doses of 200, 400, 600, or 800 milligrams, although at 1,000 mg per day all 15 patients in the study reported hot flashes.¹⁹

Another phase I study of 2-methoxyestradiol examined its effects when combined with the cancer drug docetaxel in 15 patients with meta-static breast cancer. This time, no adverse effects were observed when oral 2-methoxyestradiol was administered in concentrations between 200-1,000 mg per day for 28 days following 4-6 weeks of docetaxel therapy.²⁰

The next clinical trial on 2-methoxyestradiol's resume involved 11 men and nine women who were given oral doses of the metabolite to find the maximum-tolerated dose and determine any level of toxicity. To be enrolled in the study, patients had to have malignant, metastatic, inoperable solid tumors and to have exhausted standard treatment options. Prostate and ovarian cancers were the most commonly represented tumors in the study group. Patients were initially given a specific oral dose of 2-methoxyestradiol over the course of 28 days. When a treatment cycle was completed without adverse effects or progression of disease, doses were escalated to the next highest dose. Results of the study determined that 2-methoxyestradiol was well tolerated orally at dose levels ranging from 400 mg to 3,000 mg, though side effects, such as hot flashes and thrombosis, did occur in some participants.²¹

As the previous study indicated, 2-methoxyestradiol may be as beneficial for men as it is for women. In one randomized, placebo-controlled study specifically on PSA levels and prostate cancer, 33 patients were given either 400 or 1,200 milligrams per day of oral 2-methoxyestradiol over the course of 16 weeks. PSA numbers either stabilized or declined by as much as 40 percent in many of the patients receiving the 1,200-milligram dose. Several patients did develop abnormalities in liver function that resolved when 2-methoxyestradiol was discontinued, but other than those few instances, the 2-methoxyestradiol was well tolerated in the study participants.²²

Once again, no matter how the media—or the patent medicine industry—tries to spin it, 2-methoxyestradiol is a naturally occurring estrogen metabolite, not a “drug.” And this natural substance has enormous potential as an anticancer agent for a wide variety of cancers, particularly when it's administered properly (into the bloodstream first, before the liver gets a chance to change it and destroy it, which is actually the liver's job with steroid hormones). But even the studies that used the wrong method of administration demonstrated that 2-methoxyestradiol has few adverse effects and little toxicity.

The good news and bad news about this revolutionary cancer therapy

The good news we can take away from the 2-methoxyestradiol research to date is that a much safer and effective form of cancer treatment is coming. Now for the bad news: Given the “approval” process, it’s still years away. And, unfortunately, like all other newly introduced “approved drugs” it will be enormously expensive (although more likely to be covered by insurance than non-“approved” natural treatments).

But by now you might be wondering why you need to wait around for approval at all. Since 2-methoxyestradiol is a naturally occurring estrogen, doctors—especially ones skilled and knowledgeable in the safe and effective use of bio-identical hormones—should be able to order it through their compounding pharmacies, and prescribe it for you just like the other estrogens used in an overall bio-identical hormone replacement therapy (BHRT) program. Not to mention the fact that even though they’ve been proven safe, it’s also very likely that you wouldn’t need doses as large as the ones used in the research studies: There’s every reason to believe that much lower doses of 2-methoxyestradiol will be just as effective if they’re used as part of an overall, natural anti-cancer approach, in combination with excellent diet, detoxification, immune support and stimulation, and many other safe and natural anti-cancer compounds.

So why not just talk to your doctor about adding this safe and all-natural hormone to your current BHRT regimen now?

Well, unfortunately, it’s not that easy—and, believe me, I’ve tried. One compounding pharmacist told me that chemical supply sources advertising 2-methoxyestradiol for sale on-line refused to sell to compounding pharmacies, giving various excuses. Another compounding pharmacist actually was able to purchase a very small amount, which arrived in a package emblazoned with a skull and crossbones, accompanied by a safety sheet that cautioned about potentially toxic effects of 2-methoxyestradiol! Either these sources don’t have a clue what they’re selling, or the fix is in (but most likely it’s a mixture of both).

Since 2-methoxyestradiol is in fact a relatively harmless natural metabolite with great potential for good, I'm hoping it becomes available through the same sources as other bio-identical hormones at a reasonable price sometime in the near future. Otherwise, it'll be the same ol' story: If you develop cancer, don't call your doctor, call your travel agent!

In the meantime, though, there are some things you can do to increase your body's own 2-methoxyestradiol levels.

Stockpiling your own internal reserves

2-methoxyestradiol is one of the metabolites monitored in the 24-hour urine evaluation (more information can be found in the December 2007 issue). Even though it's present in very tiny quantities, don't be fooled by the research studies using huge doses by unnatural means (oral administration). As I mentioned above, even tiny quantities can be pivotal as "signaling molecules" when they occur naturally in your body.

For example, one research study found that an exceptionally tiny quantity—1 micromole—has "antiproliferative, antiangiogenic, and apoptotic effects" on uterine fibroid cells.²³ Although there's no concrete proof, it's very likely that one function of the very tiny quantities of 2-methoxyestradiol in our bodies is to prevent both benign hormone-related tumors such as fibroids as well as hormone-related cancers before they get started.

So how can you increase your own level of 2-methoxyestradiol? Remember the term "methylation" from the beginning of this chapter? It's the process that produces 2-methoxyestradiol from other forms of estrogen. Methylation relies on certain enzymes and molecules called "methyl donors" to function properly. Making sure you're supplying your body with enough of these methyl donor molecules is key to raising your 2-methoxyestradiol levels.

The list of foods that contain the most of the necessary methyl donor molecules will probably look familiar: Green leafy vegetables, legumes, citrus, berries, and nuts. Although in this particular case, it's

very important that the foods have been processed as little as possible before you eat them—and that includes heating and freezing. Keeping these foods as fresh and “raw” as possible helps preserve the methyl donor molecules they contain.

There are also a few supplements that supply methyl groups, including S-adenosylmethionine (SAME), followed by methylsulfonylmethane (MSM), betaine (including the betaine from betaine hydrochloride), 5-methyltetrahydrofolate (a “new-in-the-stores” and more natural form of folic acid), and methylcobalamin (a form of vitamin B12).

If your 24-hour urine test reveals that your levels of 2-methoxyestradiol are low, increase your consumption of the foods listed above, and check with your physician skilled and knowledgeable in bio-identical hormone replacement therapy about which and how much of these supplements to take.

And on a non-supplemental note: Stress, especially prolonged stress, reduces methylation of estrogens since the required “methyl groups” get used by the body to make adrenaline instead. Meditation, biofeedback, and other stress and “adrenaline reducing” techniques can make more methyl groups available to make 2-methoxyestradiol, and reduce your risk of cancer at the same time.

Thanks to Lauren Russel N.D. for her organization and summary of the data collected for this chapter.

Chapter 5:

The astonishing eggplant cure for cancer

Would you believe that studies have shown that an extract from eggplant can cure—that's cure, not just improve—the majority of skin cancers, usually in two to three months or less? This may seem like groundbreaking information, but researchers have known about it for nearly 20 years.

Actually, extracts from plants of the Solanaceae family, (which includes eggplant, tomato, potato, “Bell” peppers, and tobacco) were reported effective for treating cancer as long ago as 1825. But scientific investigation of these anti-cancer effects didn't happen until the second half of the 20th century, and the first few years of the 21st.

Results in no-time flat

The first reported study compared the effects of a topical eggplant extract called BEC with a placebo on two different types of skin cancer—basal cell and squamous cell—and actinic keratosis, a condition characterized by small, rough, yellow or brownish patches of skin that almost always occur on sun-exposed skin of individuals over 50.

Thirty individuals had basal cell cancers, usually a form that spreads locally if untreated. All 28 of the patients using BEC had complete regression of all of their basal cell cancers (some had more than one) in three to 13 weeks. None of the patients using placebo had improvement after 14 weeks.

Twenty of the volunteers had squamous cell cancers, a form which starts and spreads locally but can metastasize. Again, all of the patients using BEC (20 this time) had complete regression of their squamous cell cancers in three to 11 weeks. There were no placebo treatments in this group.

The actinic keratosis group experienced the same effects: Of the 24 in the BEC-treated group, 100 percent had complete regression, this time in just one week to a month. None of the 12 patients using placebo had any improvement at all in 14 weeks.

In another small study, which used a slightly different version of BEC called BEC2, 13 individuals with 24 basal cancers had 83 percent of those cancers completely regress in less than two months. Five people with squamous cell cancers also had 83 percent of their cancers completely regress within one to three months. And eight individuals with actinic keratoses had 100 percent regression in just two to six weeks.

Cost-effective and non-invasive

In a letter dated April 23, 2002, Drs. Rino Cerio and Sangeeta Punjabi of the Dermatology Department of the Royal London Hospital describe their experience participating in trials using a form of the extract called BEC5 to treat both invasive and non-invasive forms of basal cell carcinoma. The first was a placebo-controlled, double-blind, multi-centered study of 94 patients. The second trial with 41 individuals was done only at Royal London Hospital, and was mostly to assess safety, so no placebo was used. The doctors reported that in both trials, approximately 78 percent experienced complete regression within eight weeks.

The doctors noted that with twice daily use, only a few patients reported skin irritation and redness. They pointed out that the cosmetic outcome is “comparable to that resulting from surgical excision.”

The doctors concluded: “In our view and experience BEC5 is a topical preparation which is safe and effective, ideal therapy for outpatient treatment... It is a cost-effective treatment for both primary and secondary skin cancer care.”

And follow-up research on patients who have used BEC shows that once their cancer or actinic keratosis goes away, it doesn't recur.

The “backdoor approach” to cancer treatment

BEC5 is a name for a mixture of 1/3 solasonine and 1/3 solamargine in the “triglycoside” form, and 1/3 “diglycosides and monoglycosides” of these two basic molecules.

Solasonine and solamargine themselves are actually very similar (but not identical to) human cholesterol and steroid molecules.

By themselves, solasonine and solamargine don't have anti-cancer activity because they can't penetrate into cells, cancerous or normal. That's why just eating the foods that contain these compounds won't eliminate your skin cancer or even reduce your risk of getting it.

In order for them to be effective, they need to be able to get into the cells. That's where the glycosides come in.

Glycoside is a term used to describe molecules with various simple sugars attached to them. One of these simple sugars, called rhamnose, selectively latches on to receptors present only in skin cancer cell membranes and in actinic keratosis. When you combine the solasonine and solamargine with rhamnose, they can get into the cells where they cause cancer cell death by destroying cell components called lysosomes.

Normal cells escape any harm, since the BEC5 can't get into them.

80,000 success stories

According to Dr. Bill Cham, who has developed BEC since the 1980s, BEC5 is effective at extremely low doses and is safe to use even very frequently.

Dr. Cham writes: “BEC5 is applied at least twice daily to the skin and may be applied much more frequently if rapid regression of the tumor is required. Some patients apply [it] up to 10 times daily. The cosmetic results after using BEC5 are very impressive and over 80,000 patients have now used BEC5 successfully.”

Also, please note that BEC5 does not contain the part of the eggplant that can cause “nightshade sensitivity” in arthritis sufferers.

You can get BEC5 online from International Anti-aging Systems (www.antiaging-systems.com).

Remember: What’s reported here are preliminary research results concerning BEC5 and squamous cell cancer, basal cell cancer, and actinic keratosis. Even though these results are very good, they may not apply to you.

As always, consult with a physician skilled and knowledgeable in nutritional and natural medicine if you’d like to try BEC5. And since skin cancer (especially squamous cell cancer) can be very dangerous if neglected, it’s always wisest to consult a dermatologist, too.

Chapter 6:

The mustard miracle that can wipe out deadly cancers

We all know Grandma was right when she told us to eat our vegetables. Over the last decade or so, researchers have added their findings to Grandma's advice, concluding in one study or another that more vegetables in your diet helps reduce your risk of heart disease, stroke, cancer, and other ailments. So what's new about eating your vegetables? Now it looks like certain kinds might actually be able to cure illnesses, even ones as deadly as cervical and prostate cancer.

Preventing and curing cancer of the cervix

In May 2000, Maria Bell, M.D., revealed study results that pointed to the reversal and apparent cure of a certain type of cervical cancer with a natural substance found in vegetables belonging to the mustard family, including cabbage, broccoli, Brussels sprouts, and bok choy (these are also known as Brassica vegetables).

The natural cancer-fighting substances in these vegetables—isothiocyanates and indoles—help regulate and improve the 2/16 hydroxysteroid ratio, which is a proven predictor of all hormone-related cancers (like breast and prostate). In essence, a normal 2/16 ratio means less cancer risk.

In this study, Dr. Bell's group used a specific type of indole, called indole-3-carbinol (I3C), to reverse a significant proportion of cervical cancers.

Results that speak for themselves

Dr. Bell explained that 95 percent or more of all cervical cancer is directly related to infection with the human papilloma virus (HPV). She noted that HPV infection lowers the 2/16 ratio.

So in her 12-week study, Dr. Bell researched 30 women with moderate or severe cervical dysplasia (HPV is thought to play a role in causing cervical dysplasia).

Ten of the women took 200 milligrams of I3C daily, 10 took 400 milligrams of I3C daily, and the remaining 10 took placebos. At the end of the 12 weeks, both I3C groups' 2/16 ratios had gone up, while the placebo group's had gone down. And as for the women's cancer, 50 percent of those who had been taking 200 milligrams of I3C showed complete regression, as did 44 percent of the group taking 400 milligrams a day. (None of the patients in the placebo group experienced a regression.)

Research also shows dramatic prostate health benefits. In one study, men who ate as few as three servings of Brassica vegetables a week experienced a 41 percent reduction in prostate cancer risk.

Eating your vegetables can help you *remain* cancer-free

Although the study lasted only 12 weeks, I'd say it's a reasonable prediction that if the women whose cancers regressed continued their I3C and ate Brassica vegetables, their cancers wouldn't return. I think it's also a reasonable prediction eating these vegetables and/or taking I3C regularly may very well prevent a significant proportion of cervical and prostate cancer.

It's also apparent that the 2/16 ratio is a worthwhile risk factor screening tool. Testing your 2/16 ratio is simple and relatively inexpensive.

And, best of all, you can do it from home. All that's required is a small urine specimen that you send to the lab by regular mail.

So as Grandma said, "Eat your vegetables!" And she's right. To help prevent cervical, breast, and prostate cancer, eat cabbage, broccoli, Brussels sprouts, cauliflower, or bok choy three to four times a week. Occasionally, Brassica vegetables can inhibit thyroid function, though, so don't eat more than three or four servings a week for an extended period of time without having your doctor do a thyroid test to make sure everything is running smoothly.

If you do eat right, exercise, take your vitamins, minerals, and botanicals...you may reduce your risk of ever needing cancer treatment at all, nontoxic or otherwise.

Chapter 7:

Prevent and beat prostate cancer with this powerful— and proven—plant pigment

Prostate cancer is on the rise. More men are being diagnosed with it, and more men are dying from it. In 2014 it was responsible for an estimated 29,480 deaths in the U.S. alone.

But today, I want to share with you my research on a remarkable, yet common, natural substance that can both *treat* and *prevent* prostate cancer.

Quercetin is a plant pigment that belongs to a group of compounds called flavonoids. Flavonoids are a type of polyphenol, the most prevalent group of substances found in the plant world. Polyphenols give plants their bright colors, fragrances and unique tastes.

Polyphenols put up a fight against cancer

While *all* of nature's polyphenols have shown some anti-cancer (and cancer-fighting) activity, you no doubt have heard of only a few of them.

Curcumin (turmeric), resveratrol and plant tannins—which have been found in a number of studies to help prevent diseases, including cancer—often make splashy headlines. But among the polyphenols, quercetin has been one of the *most* studied, and yet somehow overlooked.

Polyphenols protect plants from the harmful effects of ultraviolet radiation from the atmosphere, environmental pollutants and diseases. They all share a chemical structure in common called a benzene ring that can ward off or interfere with the growth and spread of these environmental dangers. And the souped-up activity of these rings (known as “volatility” in the chemistry world) is exactly what gives the plants their unique flavors, odors and colors.

Quercetin causes cancer cells to commit suicide

In March of 2015, a review published in the journal *Oncology Reports* chronicled the dozens of published studies on quercetin and prostate cancer. The researchers concluded that both in vitro and in vivo studies have proven that quercetin “effectively inhibits prostate cancer via various mechanisms.”

They noted that human clinical trials have shown promising results, and that animal studies even suggest that the powerful flavonoid has a “chemopreventive effect.” In other words, quercetin may be able to prevent, or slow, the development of prostate cancer.

So let’s take a look at how this plant pigment accomplishes this incredible feat.

Our immune systems react to cancer cell invasions by sending out messages that promote inflammation. Inflammation gets a bad rap, but it’s not *all* bad. Its purpose is to bring immune cells to the area where they’re needed. Unfortunately, however, it *also* promotes tissue damage. And in the cancer cell, pro-inflammatory messengers stimulate growth, and slow down their natural death process.

Much like the Borg of old *Star Trek* shows, cancer cells need to be in constant communication with one another, and there are signaling pathways within the cancer cells to accomplish this. One of the main growth

stimulating signals used by cancer cells triggers a pathway called STAT3 (signal transducer and activator of transcription 3). Many flavonoids and other natural polyphenols fight cancer by blocking this STAT3 pathway, but few do this as effectively as quercetin.

According to a March 2015 study, quercetin blocks an important messenger called IL-6 (Interleukin 6). IL-6 is a good guy or a bad guy depending on the situation. But in the case of cancer IL-6 is *generally* a bad guy since (among other things) it activates the STAT3 pathway which encourages tumors to grow.

This study showed that quercetin inhibits IL-6, which in turn shuts down the STAT3 pathway. The result? The cancer cells can't grow, and instead they essentially commit suicide in a process in medicine known as apoptosis!

Another inflammatory messenger that helps stimulate prostate (and other) cancer growth is called NF kappaB. A number of studies have shown that quercetin, and its polyphenol relatives, *block* NF kappaB, but one in vitro study is particularly exciting. This 2011 study used an extract of Brazilian propolis, that nearly magical nutrient-rich substance produced by bees to repair their hives. (I'm an amateur beekeeper so anything involving these fascinating creatures captures my attention). Quercetin extracted from the propolis had inhibited the NF kappaB in prostate cancer cells causing them to... you guessed it... commit suicide.

Nutrients in produce partner up against cancer

Our immune systems are constantly vigilant against cells which might be turning cancerous. Your body uses the nutrients and chemicals found in fresh fruits and vegetables, quercetin among them, to fight against cancer. They turn off inflammation, block the growth and development of potential cancer cells, and trigger the apoptosis of existing cancer cells before they can do damage. In one 2014 study using a rat model of prostate cancer, quercetin was shown to slow down or stop the growth of prostate cancer cells by FIVE different mechanisms!

Quercetin doesn't occur by itself in nature. Flavonoids and other polyphenols work as partners to supply those captivating tastes and smells, as well as cancer-fighting activity.

Several recent studies have demonstrated that quercetin with green tea extract can be even more effective than either alone, and others have looked at quercetin combined with the soy flavone genistein. All combinations have shown positive activity against prostate cancer.

Beef up cancer-fighting benefits with a supplement

One of the great things about quercetin, and other polyphenols, is how abundant in nature they are. If you eat a diet rich in fresh fruits and vegetables (as you should, for many reasons) you're already consuming quercetin.

Foods particularly rich in this miraculous substance include...

- capers
- berries
- onions
- various salad greens
- quinoa and
- buckwheat

Grapes and red wine are good sources too, but even an apple contains about 10 mg of quercetin if you leave the skin on.

In order to get the *full* health benefit, though, it's probably necessary to take a quercetin supplement. Most studies use levels of the flavonoid that are higher than we can get with diet alone. And when you're taking polyphenols as supplements (whether it's quercetin, resveratrol, green tea extract etc.) it's especially important to choose a high quality product and not just the cheapest one available.

Remember, these are highly active antioxidant and anti-inflammatory compounds, and if they're not processed properly they will easily

break down in the capsule and not give you the full benefit of their amazing cancer-fighting powers.

PART II

Heart

Chapter 1:

Could a stroke steal your future? Know your risk and prevent it from happening!

You probably know someone who's had a stroke—wheelchair bound or walking difficulty, unable to use an arm or a leg (or both). In seconds, a stroke can render you physically helpless, without the ability to speak or even to smile. It always makes me sad to see a patient who was active, funny, and independent suddenly turn into a shell of their former self after a stroke. It can literally steal your quality of life—with absolutely no warning.

But while strokes sneak up on us, we are certainly not defenseless against them. By following some simple guidelines, you can significantly reduce your risk of suffering a stroke.

Not all strokes are created equal, but they are preventable

First, let me clear up a common misconception that allows far too many of us to assume we're "stroke-proof." It's not true that you're only at risk if you have high blood pressure or high cholesterol levels. While

high blood pressure is a major risk factor, men and women with perfectly normal blood pressure have strokes, too. Other stroke risk factors include tobacco smoking, heavy alcohol consumption, and physical inactivity.

To understand how to avoid a stroke, you need to understand how it happens.

There are at least two “basic” types of stroke: Hemorrhagic (bleeding) and ischemic/thrombotic (lack of blood flow associated with a clot).

So, either a blood vessel in the brain breaks, spewing blood into brain tissue where it doesn't belong, or the blood vessel gets blocked with a clot, depriving an area of the brain of blood. Or, just maybe, the blood vessel goes into an intense spasm with the same result. In any of these cases, the affected area of the brain can't function, and often dies.

Common sense tells us that strengthening blood vessels will reduce their risk of breaking and causing hemorrhagic stroke. Common sense also says that reducing the tendency of blood to clot abnormally, and increasing blood's clot-busting potential will reduce the risk of thrombotic/ischemic strokes. Reducing the tendency of blood vessels to spasm will likely reduce your risk of stroke, too. But how can you possibly do all of that when you can't even see the area needing improvement, you might wonder?

I'll admit, the results aren't very easy to measure—in a visual sense. You can't stand in front of a mirror and see if your blood's ability to clot has been regulated. These results are ones you're more likely to feel in the form of more energy and an overall sense of wellbeing. And even better: You don't need a gym membership to get your blood vessels “pumped up” and strong. This is where Mother Nature steps in and gives us all the tools we need to protect ourselves from strokes.

Forget pumping iron... strengthen your blood vessels with vitamins, minerals, and herbs

There are many, many nutrients and herbs that help to strengthen blood vessels; I'll just mention a few of the basics and particularly impor-

tant ones here. Let's start with vitamin C.

Without enough vitamin C blood vessels simply break down. Although only a few milligrams of vitamin C daily are enough to prevent blood vessels from breaking easily, it takes much more to maximize blood vessel strength—though research has yet to determine precisely how much more. Since there's no definitive conclusion on this point yet, and since vitamin C is so important for so many reasons, I have *two* recommendations. Choose the one that works best for you.

If you want to optimize health and even fight the aging process, take “bowel tolerance” levels of vitamin C. (“Bowel tolerance” is as much vitamin C as your intestines will tolerate without provoking excess gas and loose stools.) For most people this is between three and nine grams a day. You should take the amount you need in divided—between two and four—doses daily.

However, I understand that the “bowel tolerance” amount can be quite large and involve taking quite a few pills every day, which some people are hesitant to do. So it isn't absolutely essential to take that much (though it will make a considerable improvement in your health, I guarantee it). But the bare minimum you do need to take is 1 gram of vitamin C, twice daily.

Just like thunder and lightning, vitamin C and flavonoids go together for a reason

Where there's vitamin C, there's flavonoids...at least in nature. Vitamin C and flavonoids are always found together, probably because when they're together they work better to keep you healthy. In the 1930s, flavonoids were found to correct the fragility of the smallest blood vessels (capillaries) in cases of scurvy. Over the decades, they have been found to strengthen all sizes of blood vessels, as well as ligaments, tendons, connective tissue, and many other body tissues.

So where do you find flavonoids? Check the bowl of fruit on your table, or the “crisper” in your refrigerator. Flavonoids (along with carot-

enoids) give fruits and vegetables most of their colors. The best way to ensure you're getting enough flavonoids to reduce your stroke risk is to eat as many differently colored fruits and vegetables as possible.¹

Diets high in vegetables and fruits and lower in animal protein are associated with fewer diseases of all kinds, including stroke.² In a 12-year study of 859 men and women, *only one additional* serving of vegetables or fruits daily lowered the risk of stroke by 40 percent!³ (And just as a side note while I'm talking about your diet, consider that eating whole grain products lowers the risk of ischemic stroke, but refined flour products give no protection.⁴)

Herbs and minerals: More blood-vessel-strengthening tricks up Mother Nature's sleeve

Sometimes even I'm amazed at just how many options nature has for us (and I've been doing this for years now!). In addition to vitamin C and flavonoids, there are a number of herbs—and at least one mineral—you can take to help strengthen your blood vessels. You've heard of most of these before, so instead of spending a lot of time giving you their history, I'll just outline what they do and how much you'll need for maximum stroke protection.

Hawthorn has been is the No.1 traditional European botanical for blood vessel strengthening for centuries. “Modern” scientific research confirms hawthorn's effect on the heart and blood vessels.⁵ Although there are many hawthorn supplements available, I usually recommend Hawthorn Solid Extract by Scientific Botanicals, one teaspoonful daily.

Ginkgo has been most heavily advertised for preservation and improvement of memory, but it's been demonstrated beyond a doubt that it also strengthens blood vessels and improves blood flow all over the body. Take 80 milligrams of a standardized ginkgo preparation, twice daily.

Ginkgo helps prevent strokes in other ways, too, by helping to prevent clots and blood vessel spasms. It's even helpful *after* a stroke has occurred, by reducing brain swelling, promoting better ATP (energy)

production and blood sugar use following ischemia (lack of blood flow.)⁶ A word of caution here: If you are taking a blood-thinning medication, consult your physician before adding ginkgo to your routine.

Stroke prevention in one easy-to-follow outline

Here's what you need to do:

- eat more vegetables and fruits
- eat whole grains (not refined flour products)
- eat more fish (and reduce animal protein)
- quit smoking
- cut alcohol consumption to no more than one drink daily
- exercise!

And here's what you need to take:

- vitamin C: 1,000 milligrams twice daily (more for optimal health)
- cod liver oil: 1 tablespoonsful daily always with
- vitamin E: 600 IU daily
- ginkgo (standardized extract): 80 milligrams twice daily
- hawthorne solid extract: one teaspoonful daily
- centella asiatica (standardized extract): 60 to 120 milligrams daily
- turmeric: 20 (or more) milligrams daily (or put turmeric into your cooking regularly)
- magnesium: 250-400 milligrams daily
- copper: 2 milligrams daily
- nattokinase: 138 milligrams three times daily

While flavonoids strengthen the blood vessels themselves, centella asiatica (also known as gotu kola) strengthens the connective tissue sheath that surrounds blood vessels, thus providing an additional layer of protection against blood vessel rupture.⁷ Centella also reduces hardening of the blood vessels and improves blood flow. Take 60 to 120 milligrams of a standardized preparation daily.

It's also important for larger blood vessels to maintain their elasticity, and not become hardened or stiffened. Copper is absolutely essential to the formation and repair of elastic tissue throughout the body, including blood vessels. Make sure you're taking at least 2 milligrams daily. But you may not need to take a separate copper supplement. Most multiple vitamin-mineral supplements have at least 2 milligrams, so check the label on yours before buying more.

Keeping clots out of your strengthened blood vessels

Strong blood vessels are the first part of the stroke prevention equation. Next on the list is eliminating blood clots and keeping things flowing smoothly in your body.

The essential fatty acids contained in fish oil lessen the risk of abnormal blood clotting. Fish oil makes platelets (the tiny blood elements that clump together into clots) more “slippery,” so they can't stick together as easily. Fish oil literally does a “lube job” on platelets.

Eating fish two or three times weekly is the best way to get a start on fish oil consumption. However, if you're really concerned about stroke prevention, take 1 to 1 1/2 tablespoonsful of cod liver oil daily. (Of course, cod liver oil helps prevent osteoporosis, reduce your risk of heart attack and heart rhythm disorders, and many other things, too!) And remember, additional vitamin E should always accompany essential fatty acid supplementation. Take at least 600 IU of vitamin E for the amount of cod liver oil noted above.

“Fibrinogen” is a precursor of “fibrin,” a key element in clot formation. Elevated levels of fibrinogen are an “independent risk factor”

for easy blood clotting. Turmeric helps reduce abnormally high levels of fibrinogen.⁸ Using turmeric in cooking is the easiest way to use a turmeric supplement. You only need 20 milligrams daily—which is about 1/14,000 of an ounce—to do the job. If you'd rather take a supplement, that's fine. Most turmeric capsules contain much more than the “necessary” amount, but, fortunately, there are no known turmeric overdoses.

The Japanese soy-cheese clot buster

Until very recently, there have been no known substances (except for incredibly expensive, intravenously administered ones) actually effective in *breaking up* clots once they start to form in our blood vessels. But thanks to the persistent research of Professor Hiroyuki Sumi of Miyozaki Medical College, Japan, a safe, effective, orally administered enzyme that breaks down the fibrin component of clots has very recently become available.

Professor Sumi discovered a potent fibrinolytic (clot-busting) enzyme naturally present in the soy cheese, natto, a food consumed in Japan for at least two thousand years.⁹ In one study, volunteers ate either natto (200 grams, approximately 7 ounces) or took 1,300 milligrams of nattokinase, the active enzyme in natto. Both groups demonstrated significantly improved “clot-busting” activity that lasted for approximately eight to twelve hours.¹⁰

As I said above, natto has been eaten by millions of people for centuries. So even though it's “new” to nearly all of us in the United States, we can safely add this soy cheese to our list of stroke-preventing foods. I recommend several ounces three to four times weekly along with regular consumption of fish and other stroke preventing foods. Of course, as a traditional Japanese food (and one that's referred to even there, with its sour flavor and stringy texture, as an “acquired taste”), you may have a hard time finding it in your local health food store or ethnic-food grocer.

If you can't find natto, or prefer to forego acquiring a taste for it, you can now get it in supplement form. Nattokinase supplements are being

marketed by Allergy Research Group in 138 milligram capsules, with a suggested use of four capsules daily. While this quantity is significantly lower than the amount used in Professor Sumi's research, when you add it to the other supplemental items I've outlined for you so far, it should still be of significant help. Nattokinase is available through outlets carrying Allergy Research Group products.

Stroke risk: More than just a plumbing problem!

So far, I've been using common-sense "plumbing principles": Stronger "pipes" with smooth flowing blood will cut the risk of stroke. But blood vessels aren't just pipes, they're alive, and can do at least two things a regular pipe can't. Blood vessels can spasm, and they can become inflamed.

Magnesium is by far the most important essential nutrient needed to prevent spasm in your blood vessels. And even though deep green vegetables are excellent sources of magnesium, most of us should be taking an additional 250-400 milligrams daily, not only to help prevent blood vessel spasm and potential stroke, but also to reduce the risk of nearly every cardiovascular problem known.

Cardiovascular research has increasingly focused on blood vessel inflammation as a triggering event for blood vessel damage. It appears that much of the plaque in blood vessels (which was previously thought to be caused solely by excess cholesterol and other blood lipids) is actually formed as the body's response to inflammation.

If you're eating fish and taking cod liver oil or other omega-3 fatty acid containing oils (along with vitamin E) you've got this one covered already—these all help prevent blood vessel inflammation from occurring in the first place.

But just to make sure, tests for cardiovascular inflammation such as "C-reactive protein" are (or should be) part of your routine check-ups. Ask your doctor if he's ever given you this test. If he hasn't, tell him you'd like to have it done on a regular basis.

The sum of the stroke prevention equation

I know the items mentioned throughout this chapter add up to a hefty, and probably overwhelming, list. So, I tried to boil it down for you at least somewhat in the box on page 43. Read through it and take the advice to heart. Taking action now to prevent a future stroke, and all of the heartache it can bring with it, is well worth the effort!

Chapter 2:

The egg risk you need to know about before you order your next omelet

Poached, hard boiled, over easy—just about any way you cook them, eggs are good sources of nutrition. Except scrambled, that is.

You've probably heard numerous reports claiming that eggs are too high in cholesterol. But if you're eating your eggs cooked in one of the ways listed above, that cholesterol isn't likely to cause any damage to your heart or arteries.

To get a better understanding of why scrambled eggs are the only variety taking the blame, let's back up and go over how the whole "cholesterol is bad for you" myth originated in the first place.

Almost 100 years ago, now-famous Russian researcher Nikolai Anitschkov fed cholesterol to rabbits. When the rabbits developed atherosclerotic vascular disease, it was said to "prove" that cholesterol "causes" atherosclerosis.

Objections were raised, including the obvious: As born vegetarians, rabbits in Nature have never eaten cholesterol, and even lab rabbits show no inclination to eat cholesterol if there are tastier (to a rabbit) alterna-

tives. Despite this, the myth that cholesterol itself causes atherosclerosis has persisted, fueled largely by manufacturers of cholesterol-lowering patent medications and their friends, ex-colleagues, and future colleagues working for the Feds.

But in a much-less-publicized experiment approximately half a century later, another researcher tried to duplicate Anitschkov's research. He too fed rabbits cholesterol, but, unlike Anitschkov, he was very careful not to allow the cholesterol to lie around the rabbit cages exposed to air, which causes it to oxidize quite rapidly. Surprisingly (except perhaps to this researcher) the rabbits *did not* develop coronary atherosclerosis. Their arteries remained clear.

What this follow-up study proved is that *oxidized* cholesterol—not cholesterol itself—can cause atherosclerosis in rabbits. However, as there's no money to be made publicizing this detail, many people have never heard or read of it.

So where do scrambled eggs fit in? Well, when you cook scrambled eggs, you break the yolks. Since the yolks contain most of the egg's cholesterol, breaking and scrambling them allows that cholesterol to be exposed to much more air and heat than other cooking techniques that leave the yolk intact. That air and heat can cause the cholesterol in the scrambled egg yolks to oxidize before you even have a chance to eat them, potentially contributing to atherosclerosis.

This information isn't meant to terrorize you into fearing the very sight of scrambled eggs. If you're otherwise eating quite well and taking your daily supplements (including anti-oxidants), the occasional scrambled egg while you're traveling or visiting friends or relatives certainly won't kill you, and likely will be offset by the rest of what you're doing. But if you're a "scrambled egg lover" and eat your eggs cooked this way frequently, you might want to consider giving poached or sunny-side-up a try.

Chapter 3:

How to drop your cholesterol level by as much as 134 points without drugs or deprivation

Until recently, the general consensus among mainstream health “authorities” was that saturated fats are bad and unsaturated fats are good. But as some research supporting high-fat, high-protein diets (like the Atkins diet) suggests, it’s not quite that simple.

There’s only one general type of fat that you should always avoid, and that’s the artificial, man-made type of fats—especially hydrogenated and partially hydrogenated vegetable oils.

You’ve probably noticed that these oils have been inserted into a myriad of products in the supermarket. Snack foods are the worst offenders: Try to find a potato or corn chip without it and you’ll see what I mean. Even natural food stores carry a lot of products that contain partially hydrogenated oils. Make sure to read the labels of the packaged foods you buy. If it contains hydrogenated or partially hydrogenated oil, don’t buy it.

So these man-made fats are definitely the ones you should stay away from. But you can’t go without any fat at all. Essential fatty acids are defi-

nately a must. The best way to make sure you are getting enough essential fatty acids is to eat whole foods containing them. The best food sources are fish and unroasted nuts and seeds.

Other naturally occurring fats (polyunsaturated, monounsaturated, and even saturated) are also safe as long as you eat them as part of a whole, unprocessed, unrefined diet.

Even though milk, ice cream, and cheese aren't on that list of man-made fats to avoid at all costs, it's still a good idea to eliminate as much dairy from your diet as possible. Dairy is one of the most common food allergens and just generally does more harm than good. It's like I always say: Milk is for baby cows—not people!

On the other hand, you should eat eggs. They've gotten a bad reputation because of their cholesterol content. But they contain phospholipids, which offset any possible adverse effects of egg cholesterol. Plus, phospholipids have a unique function in keeping brain cell membranes healthy. Eggs and soy are the only dietary sources of phospholipids. Soy is still rather controversial, and while I don't think it's necessary to give it up entirely, I do think it's a good idea to limit how much you eat to just a couple of servings a week at the most. So eggs are your only other food option for getting those nutrients that are crucial to brain cells.

Also try to include plenty of the following in your diet as good cholesterol-lowering foods: Garlic, onions, oat bran, carrots, and alfalfa sprouts.

Supplement, supplement, supplement!

There are so many vitamins, minerals, and botanicals known to lower serum cholesterol that drugs are almost never necessary. There's inositol hexaniacinate, lecithin, pantethine, L-carnatine, beta-sitosterol, fish oil and fish-oil concentrates, phosphatidyl choline, choline itself (usually with inositol and methionone), vitamin C, calcium, vanadium, magnesium, chromium, and vitamin E, which have all been found to raise levels of HDL cholesterol, the “good” cholesterol. Then there are the botanicals, including guggulipid, garlic oil, “red yeast rice,” ginger, pectin,

curcumin, fenugreek powder, reishi mushrooms, silymarin, turmeric, garcinia, and artichokes.

But perhaps the most effective way to lower cholesterol naturally is with something called policosanol, a natural supplement derived from sugar cane. In numerous studies comparing it directly with patent cholesterol-lowering medicines, policosanol was more effective at lowering levels of LDL (bad) cholesterol. But that's not all.

Unlike the patent medicine products, policosanol also lowered triglyceride levels and elevated HDL (good) cholesterol levels. In two studies, it also significantly lowered blood pressure as well. The good news is that it does not require a prescription and is available at most natural food stores, compounding pharmacies, and even online. And it doesn't come with the negative side effects associated with statin drugs.

You don't need to take ALL of these different supplements, of course; the point is, there are so many to try that chances are good you won't ever need to take cholesterol-lowering drugs.

Cholesterol: How low should you go?

Let's face it: Much more attention is given to high cholesterol than low cholesterol. But like any other biologic marker, there's always a range that's "too high," "too low," or "just right."

I'm not denying that having high serum cholesterol carries a risk for heart disease. I'm just saying that many people probably don't know that low serum cholesterol may also carry risks—namely cancer, stroke, and depression.

All naturally occurring steroid hormones such as DHEA, estrogens, progesterone, testosterone, and pregnenolone are made in our bodies from a single starting material: Cholesterol. And cholesterol is a key component in every cell membrane in our bodies. That's why it's important not just to make sure cholesterol isn't too high or too low, but that it's just right.

High serum cholesterol is usually considered at or above 200 mg/dl (milligrams per 100 cc's of blood). Low cholesterol is defined by many researchers as being at or below 160 mg/dl.

I pay particular attention to low cholesterol levels when they get to be around 140 mg/dl and advise them to take manganese. Manganese is a key co-factor in the transformation of cholesterol to steroid hormones. Although manganese doesn't raise serum cholesterol to the normal range 100 percent of the time, it is partially or completely effective in more than 50 percent of the cases. I usually recommend 50 milligrams of manganese citrate, once or twice daily. Once your level returns to normal, you can cut your dose to 10 to 15 milligrams a day.

There is one caution in regards to manganese supplementation: Very high levels of manganese intake have been found to cause Parkinson's disease in manganese miners and other industrial workers. However, case reports of manganese poisoning from oral intake are extremely rare (only one case report exists of toxicity from supplementation; others have been from well water with excess manganese).

But in my experience, I've never observed problems from the doses necessary to raise low serum cholesterol.

The high-fat/low-fat debate: Choosing which diet is best for you

There are two basic approaches to a cholesterol-lowering diet: The first is the politically correct, low-fat, high-complex-carbohydrate plan, which was the mainstay of nutritional "experts" for years. And there's also the high-protein, low-carbohydrate approach. It seems strange that such opposite plans can both work, but remember that no one diet is best for every person. Before choosing what's best for you, you will need to find out a bit more about your insulin response to sugar and carbohydrates (yes, sugar and carbohydrates, even though the subject is cholesterol regulation).

High-protein diets work well for many people struggling with cholesterol problems because these individuals' bodies generally manufacture much more insulin than others in response to sugar, refined carbohydrates, and excess carbs in general. This overproduction of insulin

causes the liver to produce too much total cholesterol and triglycerides, and not enough HDL cholesterol.

Insulin is one of the hormones that regulates blood sugar. Some people (especially if they have type 2 diabetes or even have a genetic family tendency toward type 2 diabetes) have high insulin levels that go up much more rapidly in response to sugar and carbohydrate intake. In this case, the insulin is not used properly by the cell membranes, so the insulin can't take the sugar from the blood into the cells as it's supposed to. Then, their bodies keep making more and more insulin to try to force the sugar from the blood into the cells. The excess insulin causes other problems, including high blood pressure and cholesterol abnormalities.

Just recently, more and more evidence has been coming out in favor of the high-protein, low-carb approach to lowering cholesterol and triglyceride levels. In fact, according to a study published in the May 22, 2003 edition of the *New England Journal of Medicine*, people following a high-protein diet for six months had higher levels of HDL (good) cholesterol and bigger decreases in triglyceride levels than those people following a low-fat diet. There was no difference between the groups' LDL (bad) cholesterol levels, which shows that restricting protein and fat intake doesn't do as much to help cholesterol levels as the "experts" once thought.

It's possible that many people with weight problems have them due to this excess insulin response to sugar and carbohydrates. If your cholesterol levels are high, ask your doctor to administer a glucose-insulin tolerance test, which can tell you how much insulin your body makes in response to a standard amount of sugar. Then you can make an informed choice about your diet.

The hidden high cholesterol culprit you might not be looking for

Saturated fat gets a lot of blame when it comes to high cholesterol. Carbohydrates come in a close second. While they're both important factors, they aren't the only ones to consider. Diets high in saturated fat are

responsible for approximately one in five cases of high serum cholesterol, and high carbohydrate intake is responsible for approximately one in three. That still leaves a little less than half of all high serum cholesterol cases unaccounted for.

The fact is, if you have high cholesterol, you may need to look further than your diet to find the real culprit.

Researchers from the Japanese National Institute of Agrobiological Sciences think they may have found a missing piece of the cholesterol puzzle. They discovered that small quantities of lead caused elevated serum cholesterol in experimental animals. In their experiments they found that lead induces the genes responsible for creating the liver enzymes that produce cholesterol.

To compound the problem, lead also suppresses a gene responsible for the production of a liver enzyme that breaks down and destroys cholesterol. With cholesterol production “turned on” and cholesterol breakdown “turned off” by lead, the animals’ serum cholesterol increased significantly.

Although the lead/cholesterol connection hasn’t been proven by research on humans yet, it still helps to explain some observations that holistic doctors have made over the years. Holistic doctors who do chelation therapy (a process that removes lead and other toxic metals from the body) have noted that cholesterol levels often drop after chelation.

If you’ve tried following a strict diet and your serum cholesterol is still high, have a physician skilled and knowledgeable in nutritional and natural medicine check your lead levels. The most accurate way to test for lead is to get an intravenous drip of a chelating agent (EDTA is typically used for lead chelation) followed by a six- to eight-hour urine collection, which is then tested for lead and other toxic metals.

If a chelation test shows you have too much lead (or other toxic heavy metal) in your system, work with your physician to get the lead out. Not only will it help your serum cholesterol levels, but it will also help lots of other natural biochemical processes in your body operate better.

Chapter 4:

How to drop your blood pressure by 20, 30, or even 40 points—naturally

The mainstream medical industry certainly seems determined to get us all on patent hypertension (blood pressure) medications. With the new guidelines issued by the National Heart, Lung and Blood Institute, people whose blood pressure levels were once considered well below normal (a 120 over 80 reading) suddenly became “pre-hypertensive”—essentially overnight. And, of course, one of the first recommendations out of all the so-called “experts’” mouths was more widespread use of patent hypertension medications.

But you can beat high blood pressure—most of the time without drugs. And even if you can’t completely avoid patent medicines, taking the right natural measures may be able to help you use substantially less.

What works for someone else may not work for you

In many cases, the old saying “you are what you eat” holds true. It might do some good in some cases to cut out a few of the cream sauces and slices of pizza. In some cases, a diet containing more fruits, vegetables, and whole, natural starches rather than a lot of protein could be your best bet. However, the key words here are “in some cases” and “could.”

Decades ago, public health researchers observed that women and men who had been strictly vegetarian all their lives had lower blood pressure readings in their 60s and 70s than did men and women who ate considerable animal protein. A vegetarian diet provides a better potassium-to-sodium ratio. Having more potassium and less sodium helps regulate blood pressure. But a vegetarian diet isn't the best choice for everyone and, in fact, could cause more harm than good for some.

People with high blood pressure who have personal or family histories of type 2 (adult onset) diabetes usually have insulin resistance/hyperinsulinemia. The term insulin resistance refers to the impaired use of insulin by cell membranes. Hyperinsulinemia occurs when the pancreas overproduces insulin in an attempt to overcome insulin resistance. (Insulin resistance/hyperinsulinemia is easily diagnosed via a glucose-insulin tolerance test.)

Hyperinsulinemia is a known cause of high blood pressure. To bring insulin overproduction under control, the most necessary dietary changes are total elimination of sugar and refined carbohydrates and a sharp reduction in overall carbohydrate intake. It's especially important to eliminate such starches as potatoes, beans, pasta, and grains. Obviously, this diet pattern is not vegetarian, but, as it helps bring hyperinsulinism under control, blood pressure is also better regulated.

You can also take natural supplements to help regulate your insulin. There are so many nutrients shown to be helpful in type 2 diabetes that taking them all individually would be a real chore. You'll find several "multiple" formulas designed specifically to aid in blood sugar control in natural food stores. One of the most common ingredients in these formulas is chromium, which restores the cell membrane response to insulin.

There are also two more ingredients you should take in addition to your blood sugar controlling multiple supplement. The first is niacin. With chromium, niacin forms part of a molecule called the glucose-tolerance factor, which helps insulin do its job. Both chromium and niacin will get your cells to pay attention to the insulin again, so your insulin

and blood sugar levels should go down. It's important to do initial and follow-up testing with your doctor to monitor your progress. Finally, you should also consider taking flaxseed or flaxseed oil capsules. Flaxseed also helps your cells use insulin.

However, there has been a shadow cast over it recently because it contains the essential fatty acid alpha-linolenic acid (ALA), which several studies have linked to a higher risk of prostate cancer and cataracts. While not all the research agreed, there's definitely enough to be cause for concern.

However, these studies definitely aren't the "last word" on ALA. It's important to remember that ALA is an essential-to-life fatty acid, and it's highly unlikely that Nature would require us to have it in order to survive if there was no way around these potential negative effects. It's very possible that another nutrient or several nutrients are involved in the ALA-prostate cancer and ALA-cataract connection, and that using more (or less) of these would "erase" any possible harm from higher levels of ALA. Unfortunately, researchers rarely consider nutrients in more complex interactions. So it'll likely be a long time until this aspect of the "ALA question" is considered.

In the meantime, this does not mean that you need to eliminate flaxseed and flaxseed oil from your diet! In addition to ALA there are many other healthful nutrients present, especially in whole flaxseed. However, it's probably wisest to consult your nutritionally knowledgeable physician about what quantity of flaxseed or flaxseed oil might be best for you. And since too much ALA can suppress "5-alpha-reductase," if you're a man, you might want to have your "5-alpha reductase" enzyme activity measured. This is easily done from a 24-hour urinary steroid test. Some physicians may also recommend a red blood cell membrane essential fatty acid test to make sure your ALA levels aren't out of balance with other fatty acids.

Food allergy may be the culprit

For some people with hypertension, food allergies can play a big part in the problem. Eliminating the allergens or desensitizing to them can help

lower blood pressure levels, though no one has been able to successfully explain the connection. If you have a personal or family history of allergies, it's worth investigating. Contact a member of the American Academy of Environmental Medicine (316-684-5500; www.aaemonline.org) for a list of doctors near you who can help with thorough allergy screening.

The most notable individual case of allergy aggravated hypertension involved a gentleman who was undergoing maximum antihypertensive drug therapy but still had blood pressure readings ranging from a minimum 180/120 to a maximum 220/150. Once he discovered and eliminated all food allergies, his blood pressure dropped to a level ranging from 160/100 minimum to 180/120 maximum.

Biofeedback and exercise—old news, but underrated and underused

Biofeedback is another valuable and frequently effective “non-drug” tool for lowering blood pressure. It's not so much a “treatment” as it is a training program. Using external instruments, a reading is obtained of your body's reactions to stress. Through practice, you learn to recognize the physiological responses you have that might be causing unhealthy reactions and teach yourself how to control those responses. Biofeedback centers are found in all major and most midsize cities. Check your local Yellow Pages for listings.

Exercise also can significantly lower high blood pressure. Even light exercise can make a big difference. The amount that's healthy varies from person to person. Of course, it's best to check with a doctor or other knowledgeable individual before starting a strenuous exercise program.

If you're concerned about blood pressure and wonder what your level might be, there are many places to have it measured for free, including drugstores, fire stations (when the firemen aren't fighting fires), health fairs, and “senior centers.” Home blood pressure monitoring equipment is quite accurate, and most places that sell it will teach you how to use it as well.

Nutrients: Which to cut back on and which to increase

Sodium. You've probably heard that cutting WAY back on salt intake is an important step in lowering high blood pressure. However, researchers are finding more and more evidence that sodium restriction might not be best for everyone after all. If you have high blood pressure you might want to determine through trial and error whether or not salt restriction makes a difference for you.

Potassium. Sometimes it reduces blood pressure, sometimes it doesn't. Since a higher potassium level does reduce the risk of stroke, it's always wisest to take extra potassium if you have high blood pressure, even if it doesn't lower your actual blood pressure numbers.

Calcium and magnesium. For some individuals, about 1 gram (1,000 milligrams) of calcium daily can greatly reduce blood pressure by five to 10 points. For others, calcium makes very little difference. It appears to work more often for those with insulin resistance/hyperinsulinemia. If you do supplement with calcium, it's important to balance it with magnesium. Magnesium by itself can lower your blood pressure level, since it helps relax muscles, including those of the smaller blood vessels, thus helping to dilate them and improve blood flow. Supplementing with 300 to 400 milligrams daily is usually sufficient.

Vitamin C. A recent research letter sent to the medical journal *Lancet* reconfirmed that vitamin C lowers elevated blood pressure. Although this study used less, you should take a minimum of 1 gram twice daily.

Vitamin D. Vitamin D achieves its blood pressure lowering effect by addressing one of the major causes of high blood pressure—a substance called angiotensin II.

Without adequate vitamin D, one of your genes (a tiny part of your DNA) initiates the formation of excess quantities of a molecule called renin. Renin breaks down another molecule, called angiotensinogen, into angiotensin I. Angiotensin I is converted into angiotensin II by a sub-

stance known as angiotensin converting enzyme (ACE). That's why most popular patented "space alien" antihypertensives are ACE inhibitors and angiotensin II receptor blockers (ARBs).

But vitamin D helps prevent high blood pressure by targeting the very first step in the process: It persuades the gene that controls the production of renin to become less active. When less renin is produced, less angiotensin is produced.

While vitamin D is very effective at lowering blood pressure, don't expect overnight miracles: It frequently takes two to three months for significant changes to start taking place and six to eight months for the vitamin D to take full effect.

How much do you need? Well, recent research has reevaluated the safe upper limit for this vitamin, and many experts now agree that it's 10,000 IU daily (though some say it's as low as 4,000 IU daily). But my target for optimal vitamin D intake is whatever it takes to achieve a serum level of approximately 60 ng/ml. Since achieving this level will mean a different dose for everyone, it's always best to work with your doctor to monitor your blood level of vitamin D.

The building blocks of healthy blood pressure

Amino acids are the "building blocks" from which all proteins are made. In certain cases, supplementing with them has led to lower blood pressure.

At least one study devoted to each demonstrated that L-tryptophan and taurine can lower blood pressure in essential hypertension (high blood pressure with no known cause). The amount of L-tryptophan used was 3 grams daily. L-tryptophan has been available by prescription for two to three years now, but it also very recently became available over the counter once again (as it used to be until about 1989). At present, over-the-counter L-tryptophan can be found in a few natural food stores, and compounding pharmacies.

Quantities of taurine used in the study were relatively large (but safe)—6 grams daily. However, when taurine is used in combination with other nutrients and botanicals, you need only 1 to 2 grams daily.

L-arginine has gained considerable “notoriety” lately as the precursor to nitric oxide (NO), the blood vessel-dilating metabolite essential to male sexual function. However, that same blood vessel-dilating ability has been found to improve heart function in cases of congestive heart failure, and there are many cases in which this same blood vessel-dilating effect has lowered blood pressure.

The benefits of metabolites: Coenzyme Q10 and DHA

Metabolites are molecules made in our bodies from other (precursor) materials. Sometimes, directly supplying the body with extra quantities of certain metabolites can be much more effective than supplying the precursor materials. This is definitely the case with coenzyme Q10, as our bodies make less and less of this metabolite as we grow older.

Coenzyme Q10 aids in metabolism in every cell in the body. It’s found in greatest concentration in the mitochondria, the “energy engines” of the cells. It’s such an important metabolite that, even though it can be fairly expensive, I recommend a small amount (30 milligrams) for everyone over 60 and more (50 to 150 milligrams daily) for everyone with high blood pressure.

Another important metabolite that helps lower blood pressure levels is docosahexaenoic acid, or DHA (not to be confused with DHEA). This is an omega-3 fatty acid, a metabolite of the essential fatty acid called alpha-linolenic acid. A recent study reported that 4 grams daily of DHA lowered blood pressure in hypertensive patients by a small but significant degree.

The garlic and herb recipe for blood pressure success

Although you’ll encounter a few foods that your doctor will tell you to stay away from if you have high blood pressure, there are certain foods

and herbs that can help. Garlic may not make for the freshest breath, but it does usually help to lower blood pressure readings.

A lesser-known (but still important) blood pressure-lowering botanical is olive leaf. Only powdered olive leaf in capsule form is presently available in the United States, and you should take 500 milligrams four times daily. Like many of the items noted above, olive leaf can take three to four months to show an effect.

Sarpaganda (better known in Western medicine as *rauwolfia*) has been used in India for centuries to treat ailments like fevers and snakebites. Early 20th century pharmaceutical chemists searching for a “magic bullet,” single-ingredient, patentable, FDA-“approvable” drug treatment managed to isolate one of the active ingredients in sarpaganda—reserpine.

Herbalists have been telling us for most of the 20th century that it’s really better to use the whole herb containing the active ingredient(s), for at least two reasons. First, a smaller quantity of an active ingredient is usually effective because of synergistic effects of other parts of the herb—and the whole herb usually holds less potential danger than the isolated active ingredients. Second, herbalists have told us that combining the whole herb with other selected herbs can further lessen the quantity of each active ingredient necessary to achieve significant results and further lessen potential danger.

But western physicians still went ahead using reserpine instead of whole natural sarpaganda to combat high blood pressure. Unfortunately, many of them prescribed excess dosages of reserpine. These excess dosages caused various ailments, including depression and occasional suicide, so reserpine fell out of common use.

Unfortunately, since there’s not as much money to be made with the whole, natural herb itself, the medical world basically forgot about sarpaganda after the problems with reserpine: Only a few practitioners outside of Ayurvedic medicine are even aware of its existence. Most of the sarpaganda products available these days combine this herb with others also use-

ful for the heart. Although side effects are rare and sarpaganda is definitely a very effective “big gun” in hypertension treatment, products containing sarpaganda are usually only available through health care practitioners.

I usually recommend sarpaganda as a part of the Ayurvedic combination, Cardiotone, which contains 50 milligrams of sarpaganda per capsule; take one capsule three to four times daily.

An underactive thyroid: An often overlooked culprit

Incidence of hypothyroidism (an underactive thyroid) is higher in individuals with high blood pressure than in those with normal blood pressure. Even the most up-to-date thyroid blood tests can miss instances of “subclinical” hypothyroidism. Some signs of an underactive thyroid are low body temperature, dry skin, and a slow ankle reflex. It’s best to talk to your doctor if you think there’s a problem.

Make sure you know how much metal you’re really carrying around

Heavy metal toxicity is another often-overlooked cause of high blood pressure. But even if your doctor does test you for heavy metal toxicity, chances are the results won’t be accurate. That’s because blood tests for heavy metals are virtually useless.

Since these toxic substances are damaging to so many different cell structures, your body clears them from your bloodstream as rapidly as possible. If there’s too much toxic metal to be immediately excreted through your liver and kidneys (and there usually is), it gets tucked away in your bones or other less metabolically active tissue where it causes less immediate damage. So a blood test won’t necessarily pick up any toxicity—even if there’s a ton of it stored in your body.

Unfortunately, wherever the unexcreted toxic metal is stored, it still does some damage, and if and when it’s finally released from storage, it can do further damage.

Hair testing for toxic minerals isn't much better than blood tests. If one or more metals are found to be high based on a hair test, there's definitely a toxic mineral problem. But if the hair test comes back negative, it doesn't necessarily mean that you're free from heavy metal toxicity.

The best test for the presence of heavy metals is a chelation test. In my experience, more than 50 percent of individuals with blood pressure higher than 140/90 have significant excretion of toxic metals found by a chelation test.

And if you do have heavy metal toxicity, chelation therapy will usually help lower your blood pressure. Chelation therapy is an intravenous process that binds to the heavy metals and removes them from the body. Oral chelation can also be effective, but it takes considerably longer and doesn't necessarily remove as much toxic metal.

For more information or advice about both chelation testing and treatment for toxic metals, consult a physician from any of the groups listed below:

- The American College of Advancement in Medicine:
(800)532-3688; www.acam.org
- The International College of Integrative Medicine:
(419)358-0273; www.icimed.com
- The American Academy of Environmental Medicine:
(316)684-5500; www.aeemonline.org
- The American Association of Naturopathic Physicians:
(866)538-2267; www.naturopathic.org

If you have high blood pressure, nearly all the diet and supplementation ideas discussed are safe to try. If you don't have high blood pressure but it runs in your family, it can't hurt and may help in prevention to follow a few of the basic suggestions outlined in this section.

Chapter 5:

Beyond cholesterol and blood pressure—two more heart risk factors you need to know about

The next cardiovascular risk factor on the list has been “generally accepted” as such for over a decade but is just now starting to make some noise in the health world. It’s called C-reactive protein and some sources are saying it’s even more important than homocysteine and other risk factors. For instance, one recently published study of 27,939 women found women with elevated C-reactive protein levels were more likely to have a heart attack, stroke, and death from cardiovascular disease than those with elevated levels of LDL (“bad”) cholesterol.

Regardless of whether it’s a more important risk factor than homocysteine or cholesterol, the point is that C-reactive protein is a risk factor and you should have your levels tested.

If your levels are elevated, the best way to tackle the problem is by reducing the inflammation the C-reactive protein is, well, reacting to. And in my experience, the best way to reduce inflammation is to concentrate on your omega-3/omega-6 fatty acid ratio. Omega-3 fatty acids are con-

sidered anti-inflammatory; omega-6s are pro-inflammatory. So, to put it simply, you want more omega-3s than omega-6s.

Minimize (or even better, eliminate—at least temporarily) sources of omega-6 fatty acids, especially hydrogenated vegetable oils, which are present in many processed and packaged foods, like crackers, cookies, potato and corn chips. Read the labels of the foods you pick up off the supermarket shelves. If it lists hydrogenated or partially hydrogenated vegetable oil as an ingredient, don't buy it.

Next, if you aren't already using it, switch to olive oil for cooking and flavoring your food. Nearly all other vegetable oils contain 100 percent omega-6 fatty acids.

Also, even though nuts and seeds are generally very good foods, the essential fatty acids in almonds, peanuts, and nearly every other nut or seed are mostly omega-6. So if your C-reactive protein levels are high, stick to walnuts and flaxseed (and its oil), which contain more omega-3 than omega-6 fatty acids.

But the absolute best sources of omega-3 fatty acids are fish and fish oils. I recommend taking at least one tablespoonful of cod liver oil and 1,500 milligrams of DHA each daily. (Remember to take at least 400 IU vitamin E as mixed tocopherols whenever you take any extra essential fatty acids.)

Blood clots: Not just a stroke risk

Fibrinogen is a protein involved in blood clotting. If it sounds familiar, you may have heard of it in terms of its more well-known role as a stroke risk factor. But elevated fibrinogen levels are also a well-established, though very little known, independent risk factor for cardiovascular disease. (Where's that "National Fibrinogen Education Program" when you need it?) Like many other less than desirable changes, fibrinogen levels tend to increase with age—though researchers aren't sure why.

However, one group of researchers has found that the spice turmeric

(best known as an ingredient in the traditional Indian flavoring curry) and one of its components, curcumin, can lower elevated fibrinogen levels to normal. If testing shows your fibrinogen levels are elevated, take either 500 milligrams of turmeric twice daily or 200-500 milligrams of curcumin daily.

Researchers have also found that eating fish two to three times a week or taking fish oil lowers fibrinogen levels by as much as 20 percent. Take 1 1/2 tablespoons of cod liver oil daily, along with 400 IU of vitamin E. Or if you simply can't stand the oil, take a DHA/EPA supplement providing 2 to 3 grams of DHA daily.

Chapter 6:

Two signs on your body that may point to heart trouble

There are some physical signs to look for on your body that can be used as a basis for further investigation or treatment. Of course, this method isn't 100 percent accurate—and you must keep in mind that self-diagnosis can be tricky and deceptive. Any serious symptoms deserve medical attention. With that said, these physical signs can be a great starting point on your way to good health.

A message to your heart written on your earlobes

If you have diagonal creases across your earlobes, it may be a sign of increased susceptibility to cardiovascular disease. If you're eating right, getting regular exercise, and taking vitamin E, it's probably not anything to worry about. But just to be on the safe side, you may want to have your cholesterol, triglyceride, homocysteine, and C-reactive protein levels checked.

Beware of a pink nose and rosy cheeks

If you have dilated capillaries in your cheeks and nose (a red nose or rosy cheeks), it could be a sign of low stomach acidity. (See Chapter 7 on

page 77.) This means that you may not be properly digesting and absorbing important nutrients, supplements, or medications.

Also, low production of hydrochloric acid and pepsin in the stomach is associated with hardened arteries, high cholesterol, high triglycerides, high blood pressure, and even obesity—all of which can spell trouble for your heart.

Chapter 7:

Five blood-flow secrets to slash your risk of heart attack and stroke

Is your blood like wine or ketchup? Does it flow freely through your arteries like a fine Bordeaux or creep along like a cheap bottle of sticky Heinz?

The medical term for sticky thick blood is hyperviscosity and although it might seem like a silly idea to compare your blood to alcohol and condiments, studies confirm having sticky thick blood is a huge risk factor for strokes and heart attacks. And the reason why is simple—sludgy blood is significantly harder for your heart to pump around your body, and far more likely to clot and cause heart problems.

Mainstream medicine typically turns to drugs

Conventional docs deal with the sticky blood problem by recommending daily aspirin (see my sidebar to learn more about aspirin therapy) for patients with diabetes, hypertension or high cholesterol to reduce their risk of a heart attack or stroke. And if you've already had a blood clot, atrial fibrillation or a heart attack your doctor will likely also insist on a strong blood thinning medication such as coumadin.

But what if you *haven't* already been diagnosed with a medical condition that's linked to heart attack and stroke? What can the rest of us do to keep our blood flowing like wine?

Five natural blood-thinning tricks to try

Fortunately if you want to reduce your risk of heart attack or stroke, there are five simple (and safe) natural options you can try.

1) Give blood: It turns out that regularly donating blood isn't *just* a good deed—it's also good for your blood flow. It helps thin your blood, reducing damage to your blood vessels and possibly preventing blockages.

In one study out of Finland men who donated blood had an astounding 88 percent less chance of having a heart attack than men who didn't. This is also likely the reason that menstruating women rarely have heart attacks or strokes.

2) Add more garlic to your diet: Pungent and delicious garlic isn't just for cooking. In fact, the herb has been used medicinally for thousands of years, and has been proven to make your blood less sticky. And, of course, keeping blood platelets from sticking together reduces the risk

Aspirin benefits from a natural source

Taking an aspirin a day can thin your blood. So it might seem to make sense for all of us to simply start popping these cheap and easy to get pills. But the truth is aspirin *can* come with a serious potential side effect. The drug can lead to gastrointestinal bleeding for some users, and for some people it may even do far more harm than good.

Many of my patients are surprised to learn that aspirin is a synthesized version of the active component of an extract from the bark of a willow tree. You can get many of the same benefits of aspirin—much more safely—by taking a white willow supplement instead.

of blood clots. The herb has even been shown to help lower blood pressure slightly in some people (probably due to that free-flowing blood).

3) Load up on vitamin E: Vitamin E may be another effective way to thin your blood naturally. One study that looked at data from 26 different countries found that people with the lowest vitamin E levels had the highest risk of heart disease and stroke. While another study showed that 100 IU of E a day could reduce your chances of suffering a heart attack by a third.

If you're going to try a vitamin E supplement just be sure to choose the natural form of the vitamin, d-alpha-tocopherol.

4) Don't forget the fish oil: The omega 3's found in fish oil can do a lot more for you than simply make your blood less sticky. They can also reduce inflammation, lower cholesterol and improve your brain health while they're at it.

One precaution—if you're on a blood thinning medication such as coumadin, talk with your doctor before taking omega 3's to make sure the combined action of both don't thin your blood *too* much.

5) Get plenty of H2O: This final blood-thinning solution is so obvious that most doctors overlook it. And that's simply drinking more water. If your blood happens to be sludgy you can make it less “ketchup-y” by diluting it in your bloodstream with simple H2O. Especially if you have a history (or a family history) of heart attack or stroke, staying hydrated is essential.

Chapter 8:

Beware of the statin drug trap. Lower cholesterol is making us OLD and SICK!

What if I told you everything you've ever been told about cholesterol is a lie? That the need to aggressively lower cholesterol levels by any means necessary is nothing but a dangerous fraud foisted on us by the greedy pharmaceuticals industry designed simply to sell us statin drugs?

And what if I said that I can prove it with a basic lesson in chemistry?

You'd probably call me crazy; And that's exactly what the drug companies want you to think about anyone who dares to challenge their carefully constructed cholesterol myth. But the truth is your body **NEEDS** cholesterol to function.

Not only is a significant portion of your brain literally constructed of cholesterol, if you remember your high school chemistry you might also recall that many of the major hormones in our bodies come from cholesterol. In fact, if you look at testosterone or estrogen under the microscope, the very backbone of these critical-to-life sex hormones IS a

cholesterol molecule.

Statins rob your body of hormone building blocks

That means that when we aggressively try to lower our cholesterol levels we're actually in direct conflict with what our body is trying to accomplish. As our body struggles to increase its hormone levels we're robbing it of the very building blocks it needs to do it.

While it's true that around 25 percent of the cholesterol in your body comes from the foods that you eat, a whopping 75 of your cholesterol profile comes from your own liver! And your liver is making those cholesterol molecules in order for your body to perform major and crucial life functions.

To make the sex hormones testosterone, progesterone and estrogen as well as the stress hormone cortisol your body takes cholesterol from your liver and turns it in to a hormone called pregnenolone. Pregnenolone is then converted into progesterone which, eventually, becomes cortisol, testosterone and estrogen.

This process is known as the "steroid pathway," and you may even remember it from a high school biology or chemistry class. And doctors should CERTAINLY remember it from their basic med school training, yet most seem to have forgotten it.

Both LDL and total cholesterol levels naturally rise in women as they enter menopause. A study in 2009 followed about 1,000 women for 10 years and found that their total and LDL cholesterol dramatically rose starting a year before stopping menstruation. This sudden spike happens for a reason, and it's one that should seem as obvious to any doctor out there as the nose on his own face. And it probably would if his vision weren't so obscured by the statin snow screen Big Pharma has produced.

Cholesterol drugs cause us to age faster!

There's really no mystery here. A woman's cholesterol spikes so dramatically at menopause because as her ovaries start to slow down on sex-

hormone production her body begins to crave more of the hormones. As her levels of estrogen and testosterone drop her body starts to churn out more of the cholesterol it needs to make more of them so it can help stave off aging.

When we introduce heavy-duty statin drugs we kick off a demented game of tug-of-war with the master of our hormones, the pituitary gland. As the gland attempts to orchestrate the production of more cholesterol to make more hormones, the statins put the brakes on cholesterol production in our liver.

It's really no wonder that we see so many side effects from statins when the body is being subjected to this constant push and pull. And we are, no doubt, fast-forwarding the aging process in countless women as a result.

Men don't experience as sharp of a decline in their hormone production and as a result their cholesterol levels don't rise quite so dramatically. However statins do cause testosterone levels to drop, according to a brand new study out of Europe. And as their testosterone levels fall men are being set up for the same sort of statin drug and pituitary gland tug-of-war as the ladies.

Low T levels could lead to heart troubles

Even worse, low testosterone has been linked to heart problems, which means that by artificially lowering men's cholesterol to bargain basement lows we're likely threatening their heart health along with accelerating their aging process overall.

It's pretty obvious that statins are robbing us of the precious resources our bodies need to create the hormones that help keep us young. As a result countless men and women are being left hormone deficient with weak muscles, mushy memories and feeling old before their time.

And it's not just me that's making this critical connection. In one clinical study 41 patients with high cholesterol were given bio-identical steroidal hormones to replace those they had lost during normal aging.

Astoundingly, cholesterol levels plummeted in 100 percent of the participants. Their LDL (bad) cholesterol levels dove a whopping 24 percent on average, and their total cholesterol levels plunged 25.6 percent. And equally as exciting, 100 percent of the volunteers also reported a significant improvement in their quality of life.

You DESERVE individualized healthcare

If a new drug hit the market with similar numbers it would be FLYING off the shelves. But the researchers in this groundbreaking study didn't simply dump a one-size-fits-all drug on these folks. Instead they individualized the dosages of the bio-identical hormones including DHEA, pregnenolone, testosterone, estrogen and progesterone. In other words, every single participant got exactly what they needed to restore their hormones to youthful levels.

While the drug companies have made most people accustomed to the exact opposite of this customized approach to medicine, for anti-aging doctors (like myself) it's simply business as usual. The truth is you can, and SHOULD expect, individualized healthcare. If your current doctor doesn't fit the bill I suggest you look for one that does. Check the Alternative Health Resources section on page 449 for the contact information of some organizations that may be able to help.

Chapter 9:

A contaminant in your water may be clogging your arteries

There are a few, if any, communities around the world that have both chlorinated drinking water and a low incidence of atherosclerosis. Chlorine is a powerful oxidizing agent (that's why it is used for bleaching) that is capable of causing severe damage to blood vessels. American servicemen fighting in Korea and Vietnam who were killed in battle were found to have atherosclerosis in more than 75 percent of all cases. The water given to these men was so heavily chlorinated that it was virtually undrinkable. In animal studies, chlorine has been found to promote the development of atherosclerosis. The good news is that it's fairly simple to remove the chlorine from your drinking water. Just boil the water for five to 10 minutes or add a pinch of vitamin C crystals to the water.

It can also be removed by charcoal filtration, as well as through "reverse osmosis." Check with the filter manufacturer of whatever brand you choose to be certain.

Chapter 10:

Testosterone testing: Important for heart health in men and women

Congestive heart failure patients should always undergo a testosterone test. Why? Remember, our hearts are muscles—specialized muscles. And testosterone is the body’s major muscle builder. There’s a small amount of testosterone in women’s bodies naturally, just as there’s a small amount of estrogen in men’s. People with congestive heart failure often have testosterone levels that are much lower than usual for their respective sex. Supplementing identical-to-natural testosterone, when done carefully, is often a major help in relieving heart failure. And the form most physicians work with is a balanced group of identical-to-natural hormones, not just testosterone (though testosterone is the most important of these hormones for strengthening the heart muscle).

In one placebo-controlled study, Drs. S.Z. Wu and X.Z. Wan reported on 62 men, 60 of whom had suffered a heart attack in the five years prior to the study and two of whom had experienced complete occlusion of at least one coronary artery. Prior to the study, the 62 men had significantly lower testosterone levels than did members of a “control group.”

Angina pain plummets in 77 percent of patients

The men were given either the testosterone or a placebo for 10 weeks and then were switched to the opposite treatment. The testosterone groups reported 77 percent reduction in angina symptoms as compared to 7 percent in the placebo groups. EKG measurements reflected the symptomatic improvement, showing 69 percent improvement with testosterone vs. 8 percent with the placebo. Improvement shown by portable monitors was even better, showing 75 percent improvement (testosterone) vs. 8 percent (placebo).

Unfortunately, heart patients of both sexes are almost never offered testosterone to prevent or treat heart disease. Testosterone patches are widely available these days, but they're marketed by patent medicine companies primarily for men with low libido or impotence as a result of testosterone deficiency—not to treat or prevent heart disease. While physicians are free to prescribe testosterone to any patient for any reason, most are locked into the conventional treatment of cardiovascular disease, and few are aware how beneficial testosterone might be for prevention or treatment.

If your doctor won't test your testosterone level or consider testosterone therapy for heart disease, find a nutritionally oriented doctor who will. Contact the American College for Advancement in Medicine (ACAM) at (800)532-3688 or www.acam.org for a list of such physicians near you.

Chapter 11:

Coenzyme Q10—a treatment for cardiomyopathy

One of the greatest tragedies of modern medicine is that doctors continue to ignore coenzyme Q10 (coQ10), a nutrient that, if used appropriately, would relieve the suffering of millions of Americans (especially heart patients) and save billions of health care dollars. Of course, the “medical establishment” has a reputation for being oblivious to the most nutritional treatments. However, with the volumes of scientific research on coQ10, that ignorance is inexcusable.

One study, published in the *American Journal of Cardiology*, showed that patients with “terminal” cardiomyopathy had a dramatically increased survival rate when they took coQ10. The typical mortality rate is usually 75 percent within two years, but in this case, 60 percent of the coQ10 patients were still alive after 5 years. Shortness of breath and blood flow from the heart also improved when the patients took coQ10.

All chemical processes in the body that require energy (including the workings of the heart) also require an adequate supply of coenzyme Q10—of course they require an adequate supply of other things too, but it seems that coQ10 is one of the most important.

Coenzyme Q10 is available at most natural food stores, pharmacies, and grocery stores. It can be on the expensive side, but it's one of those things that really is worth the additional cost. The usual dosage of coQ10 for preventative purposes is 30 milligrams per day. Larger amounts are used to treat certain medical conditions. Please check with your doctor.

Chapter 12:

OPCs—what are they and how do they help your heart?

Contributor: Jenny Thompson, Health Sciences Institute

Scientists are still baffled by the French paradox: Although the French have a similar intake of saturated fat to the British, their incidence of heart disease is substantially lower. Various causes have been attributed to this phenomenon, but much attention has focused on the high French intake of red wine. Red wine is rich in OPCs. OPC stands for oligomeric procyanidins, compounds that have been found to be useful in the prevention and treatment of a wide variety of heart problems.

OPCs are also a key chemical component in hawthorn, a popular herbal cardiac treatment. Some people will obviously prefer to take their OPCs in the form of wine. The quality of the wine does make a difference to its potential health benefits. If the wine contains any sort of preservative, like sulfites, it's just as likely—if not more so—to do harm as it is to do any good. Vineyards are required to state the presence of sulfite on the label of any wine containing it, so this is another instance where it's important to read labels. The key word in terms of

wine's health benefits is moderation. Of course, there's no final word about how much wine is "optimum" for your health. But it's pretty safe to say that the negatives associated from drinking too much would undoubtedly outweigh any positives. Stick with a glass or two a day, at the most.

If you prefer not to drink wine, there are various OPC herbal products, including hawthorn that have strong clinical support. And they are available in most natural food stores. Just take a look at the evidence in the following studies...

Studies Confirm Hawthorn Extract is Beneficial for Heart Disease Patients

In 2003, researchers conducted a study in which more than 200 patients with chronic congestive heart failure (CHF) were divided into three groups to receive either 900 mg or 1,800 mg of hawthorn extract daily or placebo. After 16 weeks, maximum exercise tolerance increased significantly in the high-dose group compared to the other two groups, and heart failure symptoms improved in both of the extract groups, but not the placebo group.

That study was included in an Exeter University meta-analysis of clinical trials in which hawthorn was tested on hundreds of patients.

Here's how the analysis was conducted:

- Researchers combed through five medical databases looking for randomized, double-blind, placebo controlled trials in which extracts of hawthorn leaf and flower were tested on CHF patients
- Fourteen trials, which included more than 1,100 subjects, met the criteria for inclusion
- In most of the trials hawthorn was used as a complementary treatment along with conventional drug treatments for CHF
- As in the trial mentioned above, exercise tolerance was significantly improved by hawthorn intervention, as was maximal work-

load and pressure-heart rate product (an index of cardiac oxygen consumption)

- Analysis showed that CHF symptoms such as shortness of breath and fatigue also improved

In the most recent issue of the Cochrane Database of Systematic Reviews, the Exeter team writes: “These results suggest that there is a significant benefit in symptom control and physiologic outcomes from hawthorn extract as an adjunctive treatment for chronic heart failure.”

Adverse side effects were described as “infrequent, mild, and transient.”

The Exeter study shows that hawthorn extract may improve quality of life measures for CHF patients. Granted, hawthorn may not actually save the lives of gravely ill patients, but many CHF patients will likely find the extract to be “particularly helpful” in coping with the day-to-day challenges of their disease.

It should also be noted that at the 18-month follow up assessment in the 2007 study, patients who were taking the extract had a 20 percent reduced risk of CHF-related death compared to placebo – a difference that equaled four additional months of survival time.

Talk to your doctor before adding hawthorn to your daily regimen. CHF patients might want to consult with an experienced herbalist to make sure they receive a potent, high-quality hawthorn extract.

Chapter 13:

The No.1 heart-protecting mineral

Among its many other heart health functions, magnesium reduces the risk of abnormal heart rhythm, helps blood vessels to relax and dilate, and raises levels of HDL (“good”) cholesterol. So it makes sense that low levels of magnesium can contribute to heart problems.

The most accurate way to measure your magnesium level is by having a white blood cell magnesium (WBC-Mg) test.

The remedy for low levels of magnesium is simple: Eat more magnesium-containing food and take magnesium supplements. A general rule of thumb for finding magnesium-rich foods: Anything that’s green—naturally green, that is (lime Jell-O doesn’t count!)—contains magnesium. And one word of caution about supplements: Don’t take more than 400 milligrams of supplemental magnesium without measuring your own “intestinal transit time.” Intestinal transit time describes the length of time food takes to transit from the entrance to the exit of the gastrointestinal tract. Higher doses of magnesium can sometimes “speed things up,” which means you may not be absorbing it or the other nutrients your body needs.

Although estimates vary, a reasonable range for “normal” transit time

appears to vary from 12-24 hours. You can measure your own transit time by eating beets or corn or swallowing charcoal tablets and observing how long it takes them to emerge. If magnesium appears to speed up your own normal transit time, cut back on your dosage until you reach the amount that brings things back to normal.

Chapter 14:

Sweat your way to a healthier heart in 4 weeks or less

Saunas have been around in Europe, especially Northern Europe, for hundreds (probably thousands) of years. In America, some of the earliest inhabitants developed and passed down the tradition of “sweat lodges” for both health and spiritual benefits. Saunas are still great for their traditional uses: Meditation and detoxification. But believe it or not, there are actually a surprising number of controlled studies on the physical health benefits of saunas.

And some of the recent research shows that they may improve heart function in patients with clogged arteries, high blood pressure, and even congestive heart failure.

Big benefits after just one week

Most of the recent research has been done on a specific type of sauna known as a far infrared sauna. Far infrared saunas are sort of the “new kid on the (sauna) block,” having become very popular in Japan over the past century. Far infrared saunas are a bit different than the traditional steam versions. Far infrared waves warm things without actually heating up the air in between the heat source and the object. So in a far infrared

sauna, the air is warm and dry, as opposed to the humid heat in traditional saunas.

The first study on the health effects of far infrared saunas took place in Japan and involved golden hamsters. (If you want a quick laugh, try picturing a hamster in a sauna.) One group of hamsters received actual sauna temperatures—usually between 105 and 140 degrees (Fahrenheit)—daily for four weeks. The control group was placed in a room-temperature sauna (it wasn't turned on) for equal lengths of time.

Chemical analysis showed greater amounts of a substance called nitric oxide synthase in the endothelial (lining) cells of the aorta, as well as the coronary, carotid, and femoral arteries of the hamsters that got the real sauna treatments. The reason this finding is so important is that increased levels of nitric oxide synthase will produce more nitric oxide. Nitric oxide dilates coronary arteries, helping to improve heart function. That's good news on its own, but it gets even better.

More detailed analysis showed a 40-fold increase in nitric oxide synthase in the endothelial cells of the aorta after just one week. After four weeks of treatment, the increase leveled off but steadied at 50 percent.

Saunas tackle congestive heart failure, atherosclerosis, and hypertension

With such encouraging results from the hamster study, the researchers decided to test this approach in individuals with congestive heart failure.

The researchers treated 20 congestive heart failure patients with far infrared sauna daily for two weeks. They were compared with 10 “control-group” individuals, matched for age, sex, and degree of heart failure (according to the widely accepted New York Heart Association, or “NYHA,” classification system).

After just two weeks of far infrared treatment, 17 of 20 sauna-treated individuals had significant improvement in clinical symptoms. Their ul-

trasound evaluations and blood tests were also significantly better. None of the 10 control group individuals had any change.

Previously, the same researchers had studied 25 younger men (ages 31-45) with one or more “coronary risk factors,” including diabetes, hypertension, high cholesterol, and smoking. They were compared with 10 healthy younger men (ages 27-43) who had none of these risk factors. Compared with the “normal” men, the men with risk factors had impaired blood vessel dilation. But after just two weeks of daily far infrared sauna treatments, the risk-factor group had very significant improvements in blood vessel dilation. The researchers wrote that these results “suggest a therapeutic role for [far infrared] sauna therapy in patients with risk factors for atherosclerosis.”

Given the hamster-in-the-sauna results, it’s very likely that the improved blood vessel dilation in the men with cardiovascular risk factors resulted from higher levels of nitric oxide synthase.

Although none of the studies have measured it specifically, far infrared sauna therapy will very likely lower blood pressure for many individuals too. This theory makes sense, since the mechanism of action is the same as in congestive heart failure: An increase in nitric oxide dilates blood vessels and lowers blood pressure. If the studies I mentioned above are any indicator, it shouldn’t take long to find out, either, since the effects in both hamsters and humans occurred in just two to four weeks.

And even though there’s no clinical proof yet, I also think it’s very likely that combining the amino acid L-arginine (another precursor of nitric oxide) with far infrared sauna therapy would produce even better results than either therapy alone—whether you’re using it for hypertension or congestive heart failure.

Get all the benefits of saunas without even leaving home

The most economical way to use sauna therapy is probably to buy one for your own home. I did a quick search of the Internet and found

literally dozens of companies selling far infrared saunas. They range in price, so shop around.

So far, the one that has far and away the best citation list is High Tech Health, Inc., (800-794-5355, www.hightechhealth.com). If you want to start investigating far infrared saunas (which are usually easy to assemble, and simply need to be plugged in to use), you might want to start there.

PART III

Pain

Chapter 1:

Catch the culprit behind your arthritis pain

The first thing to determine is which type of arthritis you have. There are two major forms of arthritis: Degenerative arthritis (also known as osteoarthritis) and rheumatoid arthritis.

Osteoarthritis is the most common form of the disease and occurs when the cartilage between the joints begins to break down and wear away, causing pain and stiffness. This cartilage damage is one of the hallmarks of osteoarthritis, but oddly enough, heavy use of the joints isn't necessarily what causes this problem. In fact, many former long-distance runners have perfectly normal hips and knees, while their more sedentary friends become plagued with degenerating joints. No one knows for sure exactly why the cartilage wears away, but those of us who practice natural medicine do know that there are plenty of ways to alleviate the pain it causes. More on that in a minute.

Rheumatoid arthritis involves inflammation, pain, and stiffness of the lining of joints in your body and also causes redness and swelling in most cases. If you aren't sure which form of arthritis you have, your doctor can help determine that. Although both types have very different causes, some of the natural treatments for each type overlap.

And no matter which type of arthritis pain you're battling, you'll need a good starting point for all of the nutrients that can help. So the first thing I recommend is a basic, healthy diet. This includes whole, unprocessed foods, with no added sugar, no so-called "soft drinks," no chemical additives, and no flavorings, coloring, or preservatives. I suggest only whole grains (if you're not allergic or sensitive to them), no artificial sweeteners, and only small amounts of alcohol. And I know it's easier said than done, but it really is best to eliminate caffeine altogether.

Now, let's start with osteoarthritis.

The arthritis triggers that could be growing in your garden

The first thing I recommend for osteoarthritis is changing certain aspects of your diet. In the 1950s, Norman Childers, Ph.D., found that eliminating certain vegetables (known as nightshade vegetables) from the diet could completely eliminate arthritis symptoms in many cases. Nightshade vegetables include tomatoes, potatoes, peppers (including paprika, but not black pepper), eggplants, and tobacco. According to Dr. Childers, nightshade sensitivity isn't an allergy but actually a progressive loss of the ability to metabolize substances known as "solanine alkaloids," which are found in all nightshade vegetables. Unfortunately, there's no test that can tell you if your arthritis will respond to a nightshade-free diet. It's strictly a "try it and see" situation.

It's harder than it might seem to completely eliminate nightshades. Tomato and potato make their way into a wide variety of food products, and pepper gets around a lot too. Check your local library for a copy of Dr. Childers' book, variously titled (depending on the edition) *Childers' Diet; Arthritis—Childers' Diet to Stop It*; and similar titles. The information he includes can be a big help in searching out all sources of nightshades. But even eliminating the most common nightshades (the ones listed above) is definitely worth trying. Eliminate them for at least three to four months and see if it makes a difference in your symptoms. If you're not sure after three or four months, you can do a "nightshade chal-

Add some oil to those rusty joints

Fish oil is one of my favorite recommendations. There's a good reason: Omega-3 fatty acids may have replaced folic acid as America's No.1 dietary deficiency/ insufficiency. And fish oil is the best source for your body to get the omega-3s it needs.

Make sure the brand you use is “certified heavy metal free,” but aside from that, fish oil— always taken with vitamin E—has practically no hazards. (That infamous “cod liver oil burp” can almost always be eliminated by “burying” the oil in the middle of a meal, by blending the oil with rice, almond, or soy milk, and a banana, or by taking it with a “high-lipase” digestive enzyme.)

For osteoarthritis, take 1 tablespoon of cod liver oil (with 400 I.U. vitamin E) once daily— twice daily if you have a particularly bad case. You can take it right along with glucosamine and niacinamide, as they all work in different ways for different aspects of the problem.

lenge” by eating lots of tomato, potato, and peppers. If the pain comes back after the challenge, you'll know that you are nightshade-sensitive and you should eliminate those foods from your diet permanently.

Sometimes, osteoarthritis is aggravated by “regular” food allergies. If you have a personal or family history of allergies, it's worth having this possibility checked out. For a list of physicians in your area who can help you with allergy screening, contact the American Academy of Environmental Medicine at (316)684-5500 or www.aemonline.org. There are various ways to determine specific food allergies, but skin testing is not usually an accurate tool in this case.

The \$10 osteoarthritis cure

Once you've determined whether or not allergies or sensitivities play a role in your arthritis, you can move on to other natural therapies, start-

ing with glucosamine. By now, even mainstream medical doctors have heard of glucosamine. Research shows that it works by helping to stimulate the growth of new joint cartilage. This is probably why there's usually a three to four week delay after starting treatment for pain relief to begin. I recommend 500 milligrams of glucosamine sulfate three times a day.

There have been some warnings in mainstream medical publications that glucosamine might affect blood sugar control. If you have significant osteoarthritis and don't have diabetes, this theoretical possibility shouldn't be a problem. If you do have diabetes, checking your blood sugar will tell you whether the glucosamine has enough of an effect to warrant not taking it. In most cases, the improvement you'll likely feel will far outweigh the possibility of any slight effect on blood sugar.

Glucosamine is often combined with chondroitin in natural arthritis formulas. But there's enough question about chondroitin and risk of prostate cancer for me to advise all men to avoid chondroitin at this time. Besides, I've observed that glucosamine usually works just as well by itself. So just use "plain" glucosamine until this question is settled for good.

Complete arthritis relief in less than one month

The next natural osteoarthritis remedy on the list is niacinamide. Even many natural medicine doctors have forgotten, or never learned, just how useful niacinamide (not niacin) can be for controlling the pain and swelling of osteoarthritis.

In 1949, William Kaufman, M.D., Ph.D., published his exceptionally careful and comprehensive research about niacinamide and osteoarthritis titled "The Common Form of Joint Dysfunction: Its Incidence and Treatment." Unfortunately, Dr. Kaufman's research came out around the same time that patented cortisone formulas were being heavily promoted, so niacinamide treatment was hardly noticed. But even though it never made much of a stir, niacinamide treatment works very well. I recommend using 1,000 milligrams of niacinamide three times a day (it doesn't work as well if you only take it once or twice daily). You'll

probably start feeling results in three to four weeks. Many osteoarthritis sufferers achieve complete relief of pain and swelling as long as they continue on with niacinamide.

Niacinamide doesn't appear to re-grow cartilage, so it's best to use glucosamine along with it. If you have diabetes and are concerned about glucosamine's effects on blood sugar, niacinamide is a good companion for it. Niacinamide also has many benefits for blood sugar problems, and using it with glucosamine is even more likely to relieve your osteoarthritis symptoms.

And a caution: On rare occasion, people who take this amount of niacinamide get low-grade nausea, queasiness, and sometimes vomiting. Although this only happens in less than 1 percent of people who take niacinamide, if you experience any of these problems, stop taking it immediately. The nausea should go away promptly, but check with your doctor before any further niacinamide use.

Three more great remedies to try

Since glucosamine is on the well-known end of the arthritis-relief spectrum, the final two items on the osteoarthritis-fighting list usually slip below the radar of most physicians. But boron and S-adenosylmethionine (SAME) can both be quite effective.

Epidemiologic evidence shows a greater incidence of arthritis in areas of the world low in boron. A small amount of research shows that boron can relieve many symptoms of osteoarthritis. Since boron is quite inexpensive, is safe in small doses, and is useful in treating osteoporosis and preventing cancer in addition to osteoarthritis, it certainly can't hurt to take 3 milligrams twice daily.

SAME is quite effective for some cases of osteoarthritis but not so helpful for others. While it's not a surefire cure, it's quite safe and worth trying if the diet changes and supplements noted above aren't helpful. The only drawback is that it's a bit pricey compared with many other supplements. If you decide to give it a try, take 400 milligrams once or

twice daily.

Willow bark is actually the all-natural forerunner to aspirin. It's been proven to relieve pain equally as well as prescription pain medications.

The most recent study was published in the journal *Rheumatology* in

Osteoarthritis relief in one easy-to-use outline

Here's what you need to do:

- Eliminate all nightshade vegetables and other items (tomatoes, potatoes, peppers, eggplants, tobacco, etc.) from your diet for three to four months to see if it helps alleviate your pain
- Have thorough allergy screening done to test for non-nightshade food sensitivities

And here's what you need to take:

- Glucosamine sulfate—500 milligrams, three times a day
- Cod liver oil—1 tablespoon, once or twice daily
- Vitamin E—400 I.U., once or twice daily (along with the cod liver oil)
- Niacinamide—1,000 milligrams, three times a day
- Boron—3 milligrams twice daily
- SAME—400 milligrams, once or twice daily
- Willow bark—two to four doses per day (of tablets containing 400 milligrams of willow bark extract and 60 milligrams of salicin)
- Myristin—six capsules per day for 80 days

December 2001. Researchers tested two groups of 114 participants each, treating one group with two to four 240-milligram doses of salicin (one of the main pain-relieving ingredients in willow bark extract) per day and the other with the same number of 12.5-milligram doses of rofecoxib (the generic name of Vioxx). After four weeks there was no difference between the results for the two products in terms of pain, requirement for additional analgesics, or side effects. The only difference in the two treatments is that willow bark extract is much less expensive than Vioxx.

In all the trials done so far, researchers administered two to four high potency willow bark extract tablets per day to each patient. The tablets contained 400 milligrams of actual extract and 60 milligrams of salicin. The 400 milligrams of extract corresponds to 6 to 8 grams of willow bark, depending on the type used. Your local compounding pharmacist can help you make sure you're getting the right amounts. To locate a compounding pharmacist near you, contact the International Academy of Compounding Pharmacists (800-927-4227; www.iacprx.org).

Breast-feeding mothers should use willow bark extract with caution, since the remnants excreted in breast milk may cause rashes in babies. If you are currently taking blood-thinning medications or NSAIDs, be sure to consult your physician before taking willow bark extract. It is much less likely to cause problems with bleeding than prescription medications or even aspirin, but a bit of caution can go a long way in keeping you safe, healthy, and pain-free.

One-time treatment can cure arthritis for good

Back in the 1990s, former National Institutes of Health researcher Harry Diehl became intrigued by the observation that mice don't get osteoarthritis. Working in his home lab, he analyzed literally thousands of mice, finally isolating a type of fatty acid called cetyl-myristoleate (CMO) not found in rats (which do get arthritis) or humans.

He invented and patented the first process to create bio-identical CMO. When he tried the bio-identical CMO on arthritic rats, they were

cured. But he couldn't interest any patent-medicine companies in CMO. So he "let it go" until he developed arthritis himself at age 80.

Over the course of 10 days he applied small amounts of CMO (which he combined with DMSO) topically to his hands. Not only did it completely eliminate his arthritis pain, but Harry also reported that it cured a long-standing headache he'd been suffering and prevented any more recurrences of bronchitis which he's suffered on a regular basis.

Harry used CMO only that one time, and never need to take it again. He also made it for friends, who had the same experience.

While Harry's original topical CMO formula isn't available anymore, he developed a capsulized formulation, called Myristin, that appears to be just as effective. You can find Myristin in natural food stores and compounding pharmacies.

I usually recommend taking six capsules of Myristin daily for 80 days. (If it hasn't worked by then, it probably isn't going to.) Although it doesn't work for everyone, the majority of patients who've tried it have had substantial or complete relief.

Chapter 2:

The 100 percent solution for rheumatoid arthritis

Now let's move on to rheumatoid arthritis (RA). RA is a chronic disease of unknown cause, usually manifesting itself as inflammation of multiple joints. The severity of the disease varies from person to person—ranging from minor pain and discomfort to severe pain and inflammation, with joint damage and deformity.

RA can also attack other parts of the body, resulting in heart disease, anemia, nerve damage, lung disease, and general debility. This condition is considered an autoimmune disease, since the immune system appears to go awry and attack the body's own tissues.

As I mentioned earlier, some of the following recommendations are the same as those for osteoarthritis, but there are a couple of distinct differences. First, attention to diet is very important to rheumatoid arthritis control—even more so than in cases of osteoarthritis. I've observed improvement in every case of rheumatoid arthritis with elimination and desensitization of food allergy, and not just elimination of nightshade vegetables.

The link between allergy and sensitivity and all sorts of health problems, including arthritis, was first made known in 1979 when Dr. James C. Breneman wrote his book, *Basics of Food Allergy*.

Dr. Breneman's technique involves following an elimination diet. During the first week, you'll eat only foods that are less likely to cause allergies (Dr. Breneman had his patients eat things like rice, spinach, and beef). Then you add back the foods you normally eat, one at a time to see if they cause your symptoms to return.

Milk and dairy are almost always major allergens in people with this form of arthritis and have even been the subject of mainstream medical research into RA (which showed that eliminating milk and dairy worked to alleviate symptoms). But even though dairy is usually a primary culprit, there are always multiple allergens aggravating rheumatoid arthritis. The ones that do cause a recurrence should either be completely eliminated from your diet, or you may choose to work with a physician who may be able to help you desensitize to your allergens (you may not be able to desensitize to all trigger foods though). A good place to start is with a member of the American Academy of Environmental Medicine (316-684-5500; www.aeonline.org).

But while food allergy elimination and desensitization improve rheumatoid arthritis, sometimes dramatically and always noticeably, it doesn't cure the problem.

A common culprit contributes to rheumatoid arthritis

Over the years, multiple studies have reported a high incidence of stomach malfunction (specifically, low levels of hydrochloric acid and pepsin) in individuals with rheumatoid arthritis. These reports also revealed that just replacing the “missing” hydrochloric acid and pepsin—without making any other changes—can significantly improve many cases of rheumatoid arthritis. Telltale symptoms of hypochlorhydria include bloating, belching or burning immediately after meals, a feeling that food just sits in the stomach undigested, and an inability to eat more

than a small amount of food without feeling full. Many people with hypochlorhydria are constipated, some suffer from diarrhea, yet others have normal bowel function.

So with this in mind, many physicians ask individuals suffering from rheumatoid arthritis to have a gastric analysis done. Many clinics will test this by radio telemetry using the Heidelberg capsule. To take this test, you'll swallow a small, plastic capsule that contains electronic monitoring equipment. As it moves through the stomach and intestines, the capsule can measure the pH of the stomach, small intestine, and large intestine and transmit a signal, which you'll receive through an antenna that you wear outside your body. This information can help your doctor determine whether or not your stomach is producing adequate amounts of gastric acid. (This test can be obtained by contacting a doctor-member of ACAM at 800-532-3688, www.acam.org.)

In the majority of instances, the test discloses low stomach function (low acid). If this is the case for you, consider supplementing with either betaine hydrochloride-pepsin or glutamic-acid hydrochloride-pepsin before meals.

I usually recommend starting out by taking one capsule (5, 7 1/2, or 10 grains). After two or three days, if there are no problems, use two capsules in the early part of the meal; then, several days later, increase the amount to three capsules. The dose is gradually increased in this step-like fashion until it equals 40 to 70 grains per meal.

You'll probably need to work with a doctor on this aspect of rheumatoid arthritis, too. On rare occasion, treatment with hydrochloric acid can be dangerous, so it should only be used when testing indicates a need.

Hydrochloric acid should never be used at the same time as aspirin, Butazolidin, Inodacin, Motrin, or any other anti-inflammatory medication. These medications themselves can cause stomach bleeding and ulcers, so using hydrochloric acid with them increases the risk.

Low levels of DHEA could be a culprit

People who suffer from rheumatoid arthritis should also be tested for low levels of DHEA. (The DHEA test is a blood or urine test, and

requires a lab request signed by your doctor.) DHEA is an adrenal hormone and an important regulator of the immune system that is useful in autoimmune diseases, including rheumatoid arthritis. It normally reaches its highest levels in both sexes between the ages of 25 and 30 and gradually tapers off from there. At this point, it's not known how to reliably restore normal levels of DHEA secretion, so it's best to use a DHEA supplement. (Since lab results will vary, you should work with a physician to determine how much you need to take.) You can find DHEA supplements at most natural food stores or vitamin shops.

Fish oil and its cousins— an arthritis-relieving family reunion

Fish oil: Here it is again, and it's even more important in rheumatoid arthritis than osteoarthritis. Many research studies have shown that the anti-inflammatory omega-3 fatty acids contained in fish oil significantly reduce the inflammation and pain of rheumatoid arthritis. Generally, I recommend taking 1 tablespoonful of cod liver oil with 400 I.U. of vitamin E (as mixed tocopherols) twice daily.

Plain fish oil, such as cod liver oil, on its own is often very helpful, but some individuals have found that particular fish oil "fractions" such as DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid) can be even more helpful. If you want to try these, I still recommend backing them up with that "plain" fish oil; for example, take 2,000 to 3,000 milligrams of DHA (DHA capsules always contain EPA as well) along with 1 tablespoonful of cod liver oil and 400 I.U. of vitamin E each day.

Another closely related option is eicosatetraenoic acid (ETA). ETA was originally derived from mussels and is a close relative of DHA and EPA. It's an anti-inflammatory fatty acid and has been very well studied in Australia. You might have heard it called by the brand names Lyprinol and Lyprinex. Some rheumatoid arthritis sufferers have found that 50 milligrams of ETA three times daily noticeably lessens their inflammation. ETA can be a bit hard to find; try your local natural food store first, and if you can't find it there, you can get it online.

The warning that's not on the back of your Advil bottle

If you have arthritis and have taken aspirin, Motrin, Advil, or another non-steroidal anti-inflammatory medication (NSAID) for several months or more to relieve your pain, you probably need supplemental copper.

Before they can become effective and offer any sort of pain relief, NSAIDs must first form a “complex” with molecules of copper already present in your body. So it's important to replace the copper that's literally been “used up” by these medications.

But, it's also important to balance supplemental copper with zinc. You should consider having your levels of each tested to determine what balance of zinc and copper is right for you.

And, of course, before you begin taking any new supplement, it's always best to discuss your plans with a physician skilled and knowledgeable in nutritional medicine.

The final ingredients in the rheumatoid arthritis relief recipe

Rounding out the list of natural rheumatoid arthritis relievers are the following:

Ginger. You can use this tasty spice in your cooking and take it as a supplement as well. It helps stomach function along even more—and it helps relieve the symptoms of RA too. If you have rheumatoid arthritis, use as much ginger in your cooking as you can and also take 1,000 milligrams of ginger in supplement form three times daily. One study showed that after three months of taking ginger root, patients with rheumatoid arthritis reported pain relief, better joint movement, and less swelling and morning stiffness.

Unless you're allergic to it, there's no downside to ginger, and my patients tell me it's usually a significant help.

Zinc and copper. These minerals are helpful individually for rheumatoid arthritis, but since prolonged use of one can lead to insufficiency or deficiency in the other, it's best to use them together (although not necessarily in the same instant). Take 30 milligrams of zinc (from picolinate or citrate) two to three times daily and 2 milligrams of copper (from sebacate) two or three times daily. (Take the three doses a day if your arthritis is more severe.)

Selenium. Garlic and onions are the only common foods high in selenium, so if you're not allergic to them, include plenty in your diet—along with the ginger. And I also recommend supplementing the onions and garlic with 200 to 500 micrograms of selenium daily. But don't over do it; it is possible to overdose at quantities of 1,500 to 2,000 micrograms daily.

Niacinamide. Although it's not a primary treatment for rheumatoid arthritis as it is for osteoarthritis, niacinamide can be particularly useful for “ankylosed” joints—meaning ones that have been partially or completely stiffened and immobilized by long-time rheumatoid arthritis. After several months of regular niacinamide use, most cases of ankylosed joints gradually regain mobility. I've seen a few ankylosed joints become more mobile again after a year or more of continuous niacinamide treatment, and many more regain at least partial mobility.

Natural arthritis relief: No news can still be good news

Regardless of which type of arthritis you're battling, you don't have to wait around for the next patent medicine news flash to find relief. All of the items discussed in the preceding pages work safely and naturally to relieve arthritis pain.

Rheumatoid arthritis relief in one, easy-to-use outline

Here's what you need to do:

- Undergo thorough screening for an elimination of food allergies and sensitivities (which may include following an elimination diet)
- Undergo stomach function testing and treatment (if needed) using hydrochloric acid/pepsin therapy
- Have your DHEA levels tested, and work with a physician to determine how much (if any) you need to supplement to return them to the “normal” range

And here's what you need to take:

- Cod liver oil—1 tablespoon, twice a day
- Vitamin E—400 I.U. (as mixed tocopherols), twice daily (along with the cod liver oil)
- DHA—2,000 to 3,000 milligrams, once a day (if you decide to try DHA, you can reduce your dosages of cod liver oil and vitamin E to once daily)
- Ginger—1,000 milligrams, three times daily
- Zinc (picolinate or citrate)—30 milligrams, two to three times daily
- Copper—2 milligrams, two or three times daily
- Selenium—200 to 500 micrograms daily
- Niacinamide—1,000 milligrams, three times a day

Chapter 3:

The simplest solution for gallbladder pain—without surgery

Sometime in the 1980s, the folks who keep track of such statistics noted that approximately 800,000 people per year have their gallbladders removed. But over 99 percent of all gallbladder removals are totally unnecessary. The only time surgery is absolutely crucial is when a gallstone “stuck” in the duct that travels from the gallbladder and lower through the pancreas to the small intestine. But that only happens in less than 1 percent of all cases.

The other 99 percent of gallbladder surgeries have nothing to do with a “stuck” gallstone. Instead, they’re done to relieve recurrent “attacks” of gallbladder pain brought on by food allergies. (Eggs, pork, and onion are the most common offenders, but any food is a possible culprit.) Eliminating the food allergens eliminates the attacks of gallbladder pain, also eliminating the need for surgery.

If you have recurring gallbladder pain, you should see a physician who knows how to work with food allergy as soon as possible. A visit to a member of the American Academy of Environmental Medicine, (316)684-5500, the American College for Advancement in Medicine, (800)532-3688, or the American Association of Naturopathic Physicians, (866)538-2267, would be a good start.

Chapter 4:

The nutrient “cocktail” that can wipe out chronic pain and more

Mainstream medicine is finally becoming aware of the need to relieve chronic pain. Hospitals now have pain-management teams, and palliative care—a relatively new medical specialty—was developed specifically to address pain relief. Whole centers devoted to pain relief are also cropping up all across the country. But they all concentrate on mainstream “cures”—drugs and surgery, which are rife with uncomfortable and even life-threatening side effects. But many physicians have been using an all-natural nutrient combination to relieve patients’ pain for years, and they say it works better than any of the mainstream treatments they’d tried.

The nutrient combination commonly used is based on the work of Dr. John Myers, M.D., who found this therapy effective for all sorts of conditions—from fibromyalgia to chronic fatigue. It involves intravenous injections of a vitamin and mineral “cocktail” made up of vitamin C, the entire vitamin B complex (including vitamin B5, also known as dexpanthenol), magnesium, and calcium.

You'll need to work with a physician who can determine the exact quantities right for you and help you with the injections themselves. For a list of skilled nutritional doctors in your area, please contact the American College for Advancement in Medicine at (800)532-3688.

PART IV
Diabetes

Chapter 1:

The hidden link between digestion and diabetes

It's embarrassing. Most of us don't even want to admit it, let alone talk about it. But trust me, with potentially millions of adults suffering from digestive troubles, or lactose intolerance, you're far from alone.

They say misery loves company, and with so many experiencing this gut-wrenching misery you're definitely in good company. But the truth is you share something else *far* more sinister with all those folks. Because, believe it or not, if you're lactose intolerant... or have a hard time digesting your food... then you have *at least* a 50-50 chance of developing diabetes in your lifetime.

Shocked? Let me explain.

Tummy troubles are a ticking time bomb

A study published in April 2014 linked lactose intolerance to a *significantly* higher risk of type 2 diabetes. An earlier—and even more convincing—study published in 2000 revealed that over 50 percent of people with type 2 diabetes had issues fully digesting their food. Combined, these two eye-opening studies provide good solid evidence of the connection between digestion and blood-sugar issues.

Of course, having spent 37 years practicing medicine as a holistic doctor this “revelation” didn’t come as a big shocker to me. I made the connection between diabetes and digestion long ago.

When the majority of my type 2 diabetic patients complained of digestive disturbances I quickly began to put two-and-two together. I soon realized that their sluggish pancreases were likely to blame. They simply weren’t producing enough digestive enzymes to fully digest their food.

And the proof was in the cure. When I had these patients take digestive enzymes with each meal, their tummy troubles vanished almost like magic. That’s when I began to realize that digestion problems in an otherwise healthy person could be an early warning sign of future blood-sugar issues. Meaning that being aware of, and treating, these types of tummy troubles (and undiagnosed blood-sugar issues) *early*, could help head off further pancreas troubles—and perhaps even full blown diabetes—at the pass. More on that a bit later.

Connecting the dots... the link between digestion and diabetes

Symptoms of poor digestion are...

- getting full early
- feeling bloated after meals
- seeing undigested food in your stool (corn gets a free pass) and
- increased gas

But despite this obvious connection, and the research, many docs don’t take digestion troubles seriously. Unless there’s extreme weight loss, severe abdominal pain or a frank case of pancreatitis few doctors even bother to test for pancreatic digestive enzyme efficiency/output. So the problem typically remains hidden, until one day diabetes rears its ugly head, of course.

The good news is that there’s a stool test that you can request from your doctor that measures the output and effectiveness of your digestive

enzymes. It's called the fecal elastase level and all major labs and hospitals are capable of doing this test. If you're experiencing lactose intolerance, or general digestive troubles, and suspect your pancreas may be falling down on its job, don't be afraid to talk with your doctor about having this simple test done.

Putting the cart before the pancreas

When you think of type 2 diabetes, most of us—doctors and lay-people alike—automatically think of roller coaster blood sugars and the damage those elevated sugars do to blood vessels, organs or nerves. And for good reason, of course. The damage can indeed be devastating. But the truth is by ignoring, or underestimating, the influence the pancreas has on type 2 diabetes we're putting the cart before the pancreas. And we're missing a golden opportunity to break that run-away diabetes horse before it's too late.

The pancreas has two main functions in the body:

1. To make insulin, which is called the endocrine function.
2. To make digestive enzymes, which is called the exocrine function. And this small but powerful organ can only take so much abuse before it starts to give out and become unable to keep up with the workload.

Lighten the load on your overworked pancreas

Luckily, there's one incredibly simple step we can all take right away to start to turn things around. We can dial back the severe stress we're putting our pancreas through on a daily basis. We can ask it to do less.

Westerners—Americans in particular—eat too much.

If you overindulge, even if it's good low-glycemic food you're eating, you're forcing your pancreas to work extra hard to digest all that food. And when you continue to stress this critical organ, over time you end up depleting its precious reserves.

After years of going the extra mile to digest those mountains of food, you essentially end up with a tuckered out pancreas. Not only does the over-worked organ have a hard time keeping up with producing the digestive enzymes you need, your damaged pancreas eventually has trouble producing enough blood-sugar regulating insulin too. The result is wildly fluctuating blood sugars (often referred to as pre diabetes or metabolic syndrome), and eventually, if the tide isn't turned, full-blown type 2 diabetes.

Small steps, BIG rewards

After slashing those portion sizes there are some *other* small steps you can take to help ease the pressure on your overworked pancreas. Chew your food more thoroughly and consider incorporating more foods into your diet that are naturally high in enzymes, such as papaya and pineapple

If you're lactose intolerant switch to Lactaid-containing dairy products, and try taking a lactase enzyme supplement. And if you get bloated and gassy after eating certain foods like beans go ahead and give Beano, or a similar product, a try.

If those changes don't do the trick, and you still find you're suffering with digestive distress, then you can take supplements or medications that help your pancreatic exocrine function. Head to the health food store and pick up some digestive enzymes. These enzymes are broader spectrum and plant-based (usually derived from *aspergillus*). They tend to be stronger than papaya or pineapple enzymes, and work in a broader variety of foods.

But if your digestive issues are much more serious, there are prescription strength digestive enzymes available as well. These enzymes, called Creon or Zenpep, are derived from the pancreases of pigs, and are significantly stronger than their over-the-counter counterparts.

When we give our pancreatic digestive enzymes the attention they deserve we naturally ease the stress that we're putting our pancreas through. And pampering your pancreas is one sure way to reduce your risk of ever developing type 2 diabetes.

Chapter 2:

Do-it-yourself pain relief for diabetic neuropathy: Even the “last resort” is natural and side-effect-free!

When you're dealing with the numerous complications that come along with diabetes, the best place to start is getting the diabetes itself under control as best you can. But that's not to say there aren't additional things you can do at the same time to help relieve those complications even more.

Take neuropathy, for example. It's one of the most common complications of both type 1 and type 2 diabetes and its main symptom is nerve pain that ranges from slight to intense. Recently, the IRB (Institutional Review Board) supervised a double-blind, placebo-controlled trial on the ability of magnetic energy (MME) to relieve the pain. Although we don't have those results yet, three out of the five patients who previously underwent MME treatment for neuropathy experienced significant pain relief.

But since MME treatments are more expensive than nutritional and other natural therapies, I would recommend trying the latter first. The natural neuropathy treatments with the most published success include

primrose oil, lipoic acid, capsaicin, biotin, vitamin B12, and vitamin B6. And very recently, vitamin D has joined the list too.

Natural neuropathy relief backed by science

In a double-blind, placebo-controlled research trial using 4 to 6 grams of primrose oil daily, diabetics with peripheral neuropathy experienced significant pain relief after six to 12 months.¹

Another study showed that alphas-lipoic acid taken both intravenously² and orally³ for three weeks in 600-milligram daily doses was significantly more effective than placebo in relieving symptoms of diabetic neuropathy.

And research also showed that a topical cream containing .075 percent capsaicin (an active ingredient from pepper) cut diabetic neuropathy pain in half for 50 percent of the patients using it.⁴ (One note of caution: Capsaicin can cause burning initially, but that usually subsides with persistent use.)

“Uncontrolled” reports (not double-blind, placebo-controlled studies) have noted diabetic neuropathy relief from injections of biotin and vitamin B12, and oral vitamin B6. Since these nutrients are all safe and easy to group together, it’s often combined into a single injection. The combination injection we typically use contains 10 milligrams of biotin, 1,000 micrograms of vitamin B12, and 50 milligrams of vitamin B6. These injections—which can be self-administered after a simple “how-to” lesson—should be given every day for six weeks, then tapered to every other day for another six weeks. If they’re effective after 12 weeks, then the dosage can be adjusted according to response.

If you’re nervous about self-injection (which is considerably less expensive than a doctor or nurse giving you the shot), it’s also reasonable to try swallowing these vitamins according to the same schedule first, and moving on to the injections if the “oral route” doesn’t work (which isn’t unusual with vitamin B12, especially for individuals past age 50).

And just this year, researchers reported that 100 percent of the type 2 diabetics with peripheral neuropathy they examined had low serum 25-hydroxyvitamin D levels. So they instructed everyone to take approximately 2,000 IU vitamin D daily (a relatively low quantity in view of recent research).

After three months, the participants reported 40 to 50 percent less pain.⁵ The researchers concluded: “Vitamin D insufficiency is under-recognized and may be a significant contributor to neuropathic pain in type 2 diabetes. Vitamin D supplementation may be an effective ‘analgesic’ in relieving neuropathic pain.”

Find the natural combination that works for you

You may not need every item listed above to relieve your pain. The point here is that if you have diabetic neuropathy, there’s hope besides taking patent medicine for pain relief. Try one or all of the nutrients and natural substances listed above (just remember that, depending on which one you’re trying, you may need to give it anywhere from three weeks to a year to determine how well each one may work for you).

And if none of them help, there’s always the “energy medicine” approach of MME, which does cost more, but can be a very effective option for relieving the pain of diabetic neuropathy.

It’s always a good idea to work with an M.D., D.O., or N.D. skilled and knowledgeable in nutritional and natural medicine to get your diabetes under the best possible control you can. This may help the pain of diabetic neuropathy, too, and will very likely slow its progression considerably.

Chapter 3:

Beat diabetes with this miracle spice!

Diabetes is in the news quite a bit these days. It's becoming more and more common, and odds are you know at least one person with the disease and may very well be at risk yourself. Finding effective methods of treatment and prevention for diabetes in the face of this potential epidemic is more important than ever.

Luckily, there's an all-natural, great tasting, completely underused treatment that can help prevent type 2 diabetes as well as help treat existing type 1 and type 2 diabetes (both of which are often treated with either an oral medication and/or insulin). Don't expect to hear about it from your "friendly" neighborhood patent medicine salesman or, in all likelihood, even from your doctor. It's non-prescription, cheap, unpatentable cinnamon! The risks involved with this treatment are small, and it's well worth considering both for current diabetics and for those with a high risk of developing the disease.

Just a spoonful of this common spice can help stave off type 2 diabetes

A few years ago, a small flurry of news reports (many found on the Internet) revealed that a research team led by Dr. Richard Anderson had

isolated a part of cinnamon (a flavonoid called “methylhydroxychalcone polymer,” or MHCP) that closely mimics insulin activity. The researchers observed that a combination of MHCP and insulin worked synergistically (meaning they were more effective when used together than when either one was used on its own) in regulating glucose metabolism.

The research team worked with cell cultures to examine the effects of MHCP on a series of enzymes known to be affected by insulin. Results showed that MHCP affected these enzymes in a very similar (although not precisely the same) way as insulin. The researchers concluded that although there were noticeable differences between the responses MHCP and insulin can have on regulating sugar metabolism, the benefit of combining the two therapies is clear. They also noted that MHCP does mimic insulin and that, in most instances, MHCP can work alone—without the presence of insulin. (For more information on Dr. Anderson’s MHCP research, refer to the *Journal of the American College of Nutrition*, volume 20, issue 4, pages 327-356.)

One of the possibly overlooked but successful areas for cinnamon/MHCP use is in preventing type 2 diabetes before it ever begins in those who are considered at increased risk.

Cinnamon may eliminate the need for diabetes drugs

Cinnamon/MHCP might not only help control blood sugar but also, when combined with appropriate diet, exercise, and other supplementation, make patent medications and their myriad adverse effects (including significantly increased cardiovascular mortality and occasional deaths from other causes) totally unnecessary.

Individuals with type 2 diabetes who aren’t using patent medications should also consider this addition to their diet, exercise, and supplement plan. If you have a mild case of diabetes, it’s quite possible that your blood sugar level will normalize simply by using cinnamon or MHCP. At the very least, it should improve. And in either circumstance, using

cinnamon or MHCP should postpone or even help prevent progression of type 2 diabetes and its complications. Of course, it's wisest to always work with a physician who can monitor your progress and help you withdraw from any patent diabetes medication you may be taking. For

Seeing is believing

How do you know if you're at risk for type 2 diabetes? Well, here are some of the physical symptoms to look for on your body that might be trying to warn you that diabetes is on its way.

- **Shin spots.** Slow-spreading, brownish-red (occasionally yellowish) discolorations on the shins are often an early warning sign of impending adult onset (type 2) diabetes.
- **Skin tags.** As the name aptly describes, they're "tags" of skin most frequently found on the neck, under the arms, and in the groin area, and they're a common occurrence on adults.
- **Dupuytren's contracture.** This condition occurs when the connective tissue under the skin of the hand begins to thicken and shorten. As the tissue tightens, it may pull the fingers down towards the palm of the hand.
- **Excess weight.** Obesity is probably the most widely known physical symptom for type 2 diabetes, and it's usually the easiest to spot. If this is a problem for you, make sure to carefully examine your body for the other symptoms as well.

In addition to the symptoms you can actually see on your body, you should also be aware of some internal risk factors for type 2 diabetes—namely, high blood pressure, elevated cholesterol and triglyceride levels, and, of course, family history of the disease. While these factors may not put you at risk on their own, combined with the other physical signs they can be additional clues as to whether type 2 diabetes may be in your future.

a referral to such a physician in your area, contact the American College for Advancement in Medicine (800-532-3688; www.acam.org).

Type 1 diabetics can reduce insulin dependence

Since insulin and MHCP have been found to be synergistic, taking MHCP or whole cinnamon should make it possible to regulate blood sugar with less insulin. Some complications of type 1 diabetes may come from insulin use itself, so using less insulin while maintaining blood sugar control could be beneficial. In cases of type 1 (insulin-dependent) diabetes, it's definitely wisest to work with a physician whenever trying to taper down insulin usage.

Before you start sprinkling it on...

Dr. Anderson noted in his research that all species of cinnamon and numerous bottles of commercial cinnamon were tried and that they all worked to help regulate glucose metabolism in his research teams' experiments.

Coupled with the widespread availability of self-monitoring devices for blood sugar measurement, it isn't hard to tell if cinnamon or MHCP is helpful. However, keep in mind that whole cinnamon, like most plants and other living things, has both fat-soluble and water-soluble fractions. There is some evidence that high levels of the fat-soluble fractions of cinnamon could be cause for concern. Some researchers have found that substances in the fat- (and oil) soluble fractions of cinnamon may be both carcinogenic and genotoxic (damaging to genes, and leading to an increased risk of both cancer and birth defects). Fortunately, these risks are easily avoidable, and you can still get all the benefits of cinnamon just by taking a few simple steps.

Dr. Anderson has observed that essentially all toxic materials in cinnamon are fat soluble. He simply recommends that, to be safe, anyone using more than 1/4 to 1 teaspoonful of whole cinnamon daily first boil it in water, then pour off the resulting watery solution for use, and discard the solid remainder, which would contain the fat- and oil-soluble fractions.

Since MHCP is water-soluble, it's still readily available in the watery solution poured off after boiling the cinnamon.

A helpful hint for actually going about separating the oils and fats on the surface of the water: Try pouring the water through a cheesecloth (cheesecloths are available in many supermarkets and other cooking supply stores).

If you prefer not to take these steps, but still want to try this natural approach to controlling diabetes, you can avoid the potential hazard of whole cinnamon by using the cinnamon derivative, MHCP.

The Life Enhancement Foundation has made MHCP available in supplement form as a product called Insulife. A daily amount of Insulife combines approximately the amount of MHCP found in 1 teaspoonful of whole cinnamon with chromium and other nutrients shown to help reduce insulin resistance. Insulife is available through natural food stores and compounding pharmacies.

Taper down your medications with caution: Work with a physician

If you're already taking insulin or a patent medication for diabetes and you want to try cinnamon or MHCP, it's important to work with a physician who can assist you in safely tapering down the amounts of medication you're using.

Since many conventional physicians may not be familiar with (or may resist) the idea of using even a well-researched natural product (in combination with diet, exercise, and other specific supplementation) while reducing or completely eliminating the need for a patent medication, you may want to consult one of the following groups for a referral to a skilled alternative physician in your area: The American College for Advancement in Medicine, (800)532-3688, www.acam.org; the American Academy of Environmental Medicine, (316)684-5500, www.aaemonline.org; or The American Association of Naturopathic Physicians, (866)538-2267, www.naturopathic.org.

Chapter 4:

Get your type 2 diabetes under control...without a single drug

Best known for its natural antibiotic activity, berberine deals a serious blow to common infectious organisms—organisms like “staph,” “strep,” Chlamydia, diphtheria, salmonella, cholera, diplococcus pneumoniae, pseudomonas, gonorrhea, candida, trichomonas, and many others. Berberine is a component (for the technically inclined, a “plant alkaloid”) of the commonly used herbs goldenseal and Oregon grape, and of several other less well-known botanicals. A 0.2 percent solution of berberine has been found effective against trachoma—in “third world” countries, a major infectious cause of visual impairment and blindness, as well as many other types of conjunctivitis.

It’s less well known that berberine has been found more effective than aspirin in relieving fever in experimental animals, and is able to stimulate some parts of the immune system. It’s also a stimulant for bile secretion.

And it’s not at all well known that research published in well-known, respected, “peer-reviewed” medical journals in 2008 found that berberine is just as effective—and of course much safer—than metformin, the formerly patent medicine most commonly now prescribed to help re-regulate blood sugar in type 2 diabetes!

Another cover-up? That won't stop the truth

Two studies were reported in one of the 2008 research reports.¹ In the first study, 36 adults with newly diagnosed type 2 diabetes mellitus were randomly assigned to treatment with berberine or metformin (500 milligrams of either, three times a day) in a three-month (13-week) trial.

At the end of three months, average fasting blood sugars in the berberine group dropped from 191 to 124 milligrams per deciliter, average post-prandial blood sugar (blood sugar after eating) dropped from 356 to 199 milligrams per deciliter, average hemoglobin A1c (a measurement of longer-term blood sugar control) dropped from 9.5 percent to 7.5 percent, and fasting triglycerides dropped from an average 99 to 78 milligrams per deciliter.

The researchers wrote, “Compared with metformin, berberine exhibited an identical effect in the regulation of glucose metabolism, such as HbA1c, FBG [fasting blood glucose], PBG [blood sugar after eating], fasting insulin and postprandial insulin [insulin level after eating]. In the regulation of lipid metabolism, berberine activity is better than metformin. By week 13, triglycerides and total cholesterol in the berberine group had decreased and were significantly lower than in the metformin group ($P < 0.05$).”

Insulin resistance dropped by 45 percent

The second study in this same publication involved 48 adults already under treatment for type 2 diabetes with diet and one or more patent medications and/or insulin. Despite these various treatments, their type 2 diabetes was still poorly controlled. Diet and all medications had been the same in each individual for two months before berberine treatment was added, and remained unchanged for the three months of this second study.

After just 7 days, the added berberine (500 milligrams thrice daily) led to an average reduction in fasting blood sugar from 172 to 140 milligrams per deciliter, and average post-prandial blood sugar had declined from 266 to 210 milligrams per deciliter.

Are you a type 2 diabetic taking one of these medicines?

The Lancet, considered to be one of the world's "top" medical journals, published an editorial titled "Individualized incretin-based treatment for type 2 diabetes" in the August 7, 2010 edition. The author wrote, "All GLP-1 receptor agonists [molecules which stimulate the receptor for the incretin hormone GLP-1, which helps regulate blood sugar] that are "approved" [quotation marks added] or in development for the treatment of type 2 diabetes cause nausea, vomiting, and sometimes diarrhea in a substantial proportion of patients."

He continued by observing that GLP-1 can help regulate blood sugar without these effects—which should be rather obvious because our own internally secreted GLP-1 doesn't cause any of these problems! But rather than recommend that natural GLP-1—or berberine, which stimulates GLP-1—be used instead of "approved" or "under development" patent medicines, he instead suggests that researchers look into why the patent medications cause these problems, as this would "pave the way to an even more impressive exploitation of the incretin-based treatment strategy."

Exploitation is exactly the correct word to describe this point of view, which ignores completely the much safer and considerably less expensive molecules found in our bodies and in Nature, and continues to pursue the development, sale, and use of prohibitively expensive patent medicine substitutes with much greater incidence of so-called "side" effects—which are actually part of the real effects of these never-before-found-on-planet-Earth (extraterrestrial, space alien) molecules.

But it's your body and your health! If you have type 2 diabetes and are being "treated" with Byetta®—which all affect the incretin-driven blood sugar regulatory system—consider switching to berberine at 500 milligrams three times daily. There's ample scientific evidence to support such a change! Make sure to work with a physician skilled and knowledgeable in nutritional and natural medicine.

During the second week of added berberine, average fasting blood sugar dropped to 135 milligrams per deciliter, and postprandial glucose to 189 milligrams per deciliter. The researchers reported that these improvements were maintained for the rest of the three-month study.

In addition, hemoglobin A1c decreased from 8.1 percent to 7.3 percent, fasting insulin decreased by 28 percent, insulin resistance was reduced by 45 percent, and total and low-density (LDL) cholesterol were both significantly reduced.

The researchers wrote that in their study of newly diagnosed diabetics who took berberine or placebo alone, “[n]one of the patients suffered from severe gastrointestinal adverse events when berberine was used alone.”

By contrast, the researchers wrote about the poorly controlled diabetics who added berberine to their on-going patent medication treatment: “Incidence of gastrointestinal adverse events was 34.5 percent during the 13 weeks of berberine...combination therapy.”

These adverse events included diarrhea in 10 percent, constipation in 7 percent, flatulence in 19 percent, and abdominal pain in 3.4 percent. The side effects were observed only in the first four weeks in most patients. In 24 percent, berberine dosage was decreased from 500 to 300 milligrams thrice daily because of gastrointestinal adverse events, and all of these side effects disappeared within one week.

The researchers concluded, “In summary, berberine is a potent oral hypoglycemic [blood sugar lowering] agent with modest effect on lipid metabolism. It is safe and the cost of treatment by berberine is very low.”

Better blood sugar control ...and a few pounds shed

In a second publication, other researchers described results achieved by 116 individuals with type 2 diabetes and cholesterol and triglyceride abnormalities who participated in a randomized, double-blind trial that

compared 500 milligrams of berberine taken twice daily with placebo, also taken twice daily.² In the berberine group, average fasting blood sugar decreased from 126 to 101 milligrams/deciliter.

Two hours after a standardized glucose challenge, blood sugars decreased from an average 216 to an average 160 milligrams per deciliter. Average hemoglobin A1c decreased from 7.5 percent to 6.6 percent, average triglycerides decreased from 221 to 141 milligrams per deciliter, average total cholesterol decreased from 205 to 168 milligrams per deciliter, and average LDL-cholesterol (“bad” cholesterol) decreased from 125 to 97 milligrams per deciliter.

These researchers also reported “secondary outcomes.” Body weight decreased from an average 151 pounds to an average 146 pounds with berberine, a significantly greater fall (five pounds) than in the placebo group, who went from an average 158 pounds to an average 155 pounds, a loss of three pounds. A greater reduction of body mass index (BMI) was also found at three months in the berberine group than in the placebo group. Systolic blood pressure decreased from an average of 124 to 117 and diastolic blood pressure decreased from an average of 81 to 77 in those treated with berberine, exceeding the fall from 126 to 123 systolic and from 83 to 80 diastolic in those who took the placebo.

Side effects were few and mostly transient in the berberine group. Tests were done for kidney and liver function, as well as blood counts and electrolytes. Mild to moderate constipation occurred in five participants receiving berberine and one participant in the placebo group. Constipation “cleared up” in three of the five taking berberine and the one in the placebo group. The other two in the berberine group reduced their quantity of berberine by half to 250 milligrams twice daily, which relieved the constipation. Three measured liver enzymes (for the technically inclined AST, ALT, and GGT) all decreased to within the normal range.

How berberine does the job

So how does berberine improve blood sugar control? Much of the answer involves the effect of berberine on insulin and insulin regulation.

Some of the rest is explained by berberine's indirect effect on blood sugar regulation through its effect on little-known (to non-researchers) gastrointestinal hormones termed "incretins."

Berberine improves the action of insulin by activating an enzyme (for the technically inclined, AMP-activated protein kinase, or AMPK) which helps regulate the cellular uptake of glucose, the oxidation ("burning") of fatty acids and the synthesis of glucose transporter 4 (GLUT4), the insulin-regulated glucose carrier found in fat and skeletal and cardiac muscle that is responsible for moving glucose from the bloodstream into cells.³⁻⁶ GLUT 4 is found only in muscle and fat cells, the major tissues in the body that respond to insulin.

Berberine increases the "expression" (number and activity) of insulin receptors.^{7,8} The increase in number and activity of course enables the same amount of insulin to be more effective than before. Another way of describing this activity of berberine is "decreasing insulin resistance." Other researchers have reported that berberine inhibits an enzyme (for the technically inclined, protein tyrosine phosphatase 1B, or PTP1B) which in turn inhibits the insulin receptor.⁹ When the insulin receptor isn't inhibited as much, it can of course function better, and the net result is that insulin can "work" better.

"Incretins" are hormones secreted by our stomachs and intestines that simultaneously increase the amount of insulin and inhibit the amount of glucagon (a pancreatic hormone which "opposes" insulin) released from the pancreatic islet cells after eating, even before blood sugar levels rise. (It's like an "anticipatory" action so more insulin—and less glucagon—will be immediately available when the glucose starts to rise in the blood.) Incretins also slow the rate of absorption of nutrients into the blood stream by slowing stomach emptying; this may indirectly reduce food intake. Another way in which berberine regulates blood sugar is by increasing the secretion of one of the major incretins, glucagon-like peptide 1 (GLP-1).¹⁰

However, the actions of GLP-1 and other incretins to increase insulin release, lower glucagon release, and help regulate blood sugar are

normally rapidly negated by another enzyme called DDP-4 (for the technically inclined, dipeptidyl peptidase 4). Yet another aspect of the blood sugar regulating action of berberine is its ability to inhibit DDP-4.¹¹ When DDP-4 is inhibited, GLP-1 and other gut-secreted incretins aren't broken down as rapidly, so they can continue to stimulate insulin and inhibit glucagon release significantly longer.

Thousands of years of use, and still largely ignored

Berberine is a major active component of the herb *Coptis chinensis* (Huang-lian), which—according to one research group—has been used in China to treat what is now identified as type 2 diabetes for literally thousands of years.

According to another research group, its blood sugar lowering effect was noticed when it was given to type 2 diabetic individuals to treat diarrhea. After the isolation of the berberine molecule itself, one of the first publications describing its use to lower blood sugar in type 2 diabetics was published in China in 1988.¹² This and two subsequent research papers published in 2004¹³ and 2005¹⁴ found significant reductions in fasting and after-eating blood sugar control, and one also found significant reductions in cholesterol and triglycerides. Only one case of constipation (but no other adverse effects) was reported.

However, despite the safe and effective results reported, these studies suffered from the “defect” of not being placebo-controlled, and were (and are presently) only available in Chinese, so no one noticed them—with the possible exception of patent medicine companies working to make a patentable un-Natural molecule “analog” to berberine, and they won't tell!

But the research studies you've already read about were “controlled,” and compared berberine directly with placebo or the number one established patent medication, metformin (Glucophage®, Glucophage XR®, Glumetza®, Fortamet®, Riomet®), or used berberine in addition to patent medication treatment—and all proved berberine to be clinically effective.

If you have type 2 diabetes and are using any patent medication, consider consulting a physician skilled and knowledgeable in natural and nutritional medicine and switching to berberine. Of course, there are many other natural techniques which can also be used to regulate and even normalize blood sugar in type 2 diabetes, including diet, exercise, vitamins, minerals, and other botanicals. It appears, however, that berberine can be a major tool, with fewer and less severe adverse effects than patent medications.

I personally recommend Berberine Plus™ (True Botanica™), 500 milligram capsules, each of which contain 485 milligrams of berberine itself. They are available at natural food stores and compounding pharmacies.

Thank you to Ronald Steriti, N.D., who researched and organized the material used in this report!

Chapter 5:

Maintain “perfect” blood sugar, blood pressure, and cholesterol levels naturally

Barely a day goes by that I don't find myself talking some poor souls down off the ledge. A doctor has bullied them into believing that if they don't get their blood sugar, blood pressure and cholesterol numbers down (and fast) they're going to drop dead at any moment.

They end up on my doorstep because they don't want to die, but they also don't want to spend their lives chained to dangerous prescription drugs.

They find themselves stuck between a rock and side effect, and they're hoping I can help.

And the good news is I can. I usually start with a quick lesson on those bogus benchmarks they're being asked to meet—and then tell them the real blood sugar, blood pressure and cholesterol numbers they should be shooting for.

Bait-and-switch con sets you up for failure

My patients' jaws drop when I explain that lots of what we call “good” or “normal” health numbers today are nothing but a con. One dreamed

up by drug company execs, dutifully carried out by their government pals in DC and reinforced by the lemmings in the mainstream media.

It's no accident that what are considered "good" cholesterol, blood sugar and blood pressure numbers have dropped so dramatically over the years (and we're certainly not any healthier to show for it).

Once Big Pharma has just about everyone in their potential pool of users signed up for a monthly prescription to the latest drug du jour, it's time to find new customers. They do that by funding biased studies, applying political pressure, and demanding that the ranges be lowered.

Before you know it the media is reporting on some new drastic change to the guidelines that are almost impossible to meet without prescription drugs.

In the last 10 years alone, the cholesterol guidelines have plummeted from a total cholesterol of 220 and a LDL ("bad") cholesterol of 120 to a needlessly low 200 and 100. Blood pressure goals have dropped from 140 systolic and 90 diastolic to 120 over 80. And three month blood sugar averages, measured using a test called the Hemoglobin A1C, have now started heading south too.

That may not seem like much of a difference, but the effect is enormous. It makes millions of new customers eligible for cholesterol, blood sugar and hypertension drugs practically overnight.

Suddenly your perfect 220 LDL cholesterol level is considered sky high. Time for a statin!

Or your normal blood sugar numbers now put you into the pre-diabetes zone and it's time to get you on a blood-sugar-lowering drug before you have "complications."

Or your borderline blood pressure is no longer treatable with diet and lifestyle changes and you need to start popping a blood pressure pill to avoid keeling over from a stroke.

Beware: The prescription drug gold rush can kill

Now don't misunderstand me, I'm certainly NOT against instituting some standard guidelines for these important numbers. But they just need to be reasonable and not driven by the very industry that stands to profit from them.

And for people who really do need to bring their blood sugar, blood pressure or cholesterol numbers down (more on that in a moment) immediately turning to drugs could be a big mistake.

Prescription meds are the third-leading cause of death in the United States, according to a study published in the Journal of the American Medical Association. And, in fact, medical treatments and drugs kill more people than strokes or diabetes!

In some cases the drugs could turn out to be far worse than the condition they're supposed to be treating. Or you could be trading one problem for another such as with cholesterol-lowering statins which have been linked with diabetes.

So what is “problem blood sugar” anyway?

Many of my patients are eager to avoid prescription diabetes drugs. And they want to know whether there is a magic blood sugar number or “tipping point” beyond which some type of intervention is necessary.

I believe a 6.0 three-month average on a Hemoglobin A1C test is high enough that we should pay attention to diet, exercise and natural blood sugar remedies.

But it's not high enough where I'd encourage the use of the potentially dangerous prescription drugs that are now being pushed for patients at that level.

Keep control NATURALLY

If you're concerned about your own numbers, simple diet and lifestyle changes are almost always the best first steps.

For elevated blood sugar levels talk with your doc about testing you for digestive and pancreatic enzyme deficiencies. If you're running low—which is often the case with pre-diabetes—it could be a sign of an overloaded pancreas.

Supplementing with digestive enzymes like lipase, protease and amylase could give your pancreas the support it needs to help bring your numbers back down naturally. And natural supplements like berberine have been proven just as effective as the drug metformin in maintaining blood sugar control.

To lower your cholesterol think “fat,” but NOT low fat.

America's obsession with low-fat (and high-carb) eating is what got us into this mess in the first place. Instead concentrate on eating plenty of natural fats and proteins such as beef and poultry which actually support heart health.

Monounsaturated fats such as olive oil can help naturally lower your LDL (or so-called “bad” cholesterol) levels. And cold water fish such as salmon are packed with omega-3 fatty acids, a natural blood-clot fighter.

I highly recommend you give the Paleo Diet (also known as the Caveman Diet) a try. This healthy approach to eating—which focuses on natural proteins, fruits and vegetables while eliminating processed foods—can help improve your blood sugar control, reduce your blood pressure and lower your triglycerides. It may even help you effortlessly drop a few stubborn pounds.

PART V

**Digestion and
Weight Loss**

Chapter 1:

Age and antacids—a double whammy against your body’s optimal health

Anti-aging enthusiasts will all tell you that eating a whole-food, organic diet is a necessary part of staying younger longer—and I agree with them. But such a diet won’t do you much good if you’re not digesting and assimilating the nutrients from the food you eat. That’s why good digestion and assimilation are equally important factors in maintaining optimal health.

The main causes of poor digestion and assimilation are age-related gastric hypochlorhydria (more commonly referred to as low stomach acid) and age-related gastric achlorhydria (which is no stomach acid at all). Like it or not, the older you get, the more likely you are to develop these problems.

According to research conducted in the early 1900s, approximately 50 percent of people over the age of 60 had significantly low stomach acid due to age. But if stomach acid tests conducted recently are any indication, that number has jumped considerably since the initial research was done. (Many clinics use the extremely accurate “gastric analysis by radio telemetry,” also called the “Heidelberg capsule test.”)

Unfortunately, doctors rarely recognize the seriousness of this problem and treat the underlying cause. Instead, many doctors today are only making the problem worse by putting people on patent medications specifically designed to suppress stomach acid production.

This could all be changing in the near future, though, as doctors are slowly becoming aware of the fact that low or no stomach acid can literally influence the health of the entire body. Not surprisingly, this “discovery” is coming about in a backward way: By observing the negative effects of patent medications that induce low levels of stomach acid—and even worse, ones that wipe it out altogether.

But whether your low stomach acid is caused by age, by certain acid-suppressing patent medications, or by both, the end result is the same: Poor digestion and assimilation of nutrients that are vital for your body’s ultimate health and longevity potential. And this isn’t just theory: Published research shows that both patent medication induced gastric acid suppression and age-related lack of gastric acidity have the same effect on your body’s ability to absorb nutrients.¹

The good news is that whatever the underlying cause of low stomach acid is, the condition is easy to treat.

An open invitation for unfriendly intestinal bacteria

Low stomach acid levels lead to alterations in your intestinal microflora. Friendly intestinal microorganisms are dependent on the natural intestinal pH balance that results when all digestive organs are working well. When the major source of intestinal acidity (the stomach) fails or when it’s suppressed by patent medications, intestinal contents become too alkaline, allowing unfriendly microorganisms to enter the scene, including *Candida albicans* (yeast) and many others.

The *Journal of the American Medical Association* (JAMA) published the results of a study demonstrating that two different types of patent medications known to suppress stomach acid are both associated with a significantly increased risk of overgrowth of a potentially serious intesti-

nal micro-organism called *Clostridium difficile*.² This antibiotic-resistant bacterium produces a toxin that causes watery diarrhea, which can occasionally lead to hospitalization and sometimes even death.

Low stomach acid linked to hip fractures, pneumonia, macular degeneration, and more

The increased risk of infection that goes along with low gastric acidity isn't limited to the intestinal tract, though. Other studies have shown that when patent medications suppress stomach acid, many seemingly unrelated parts of the body are affected. And it makes sense when you think about it since individual nutrients are vital for maintaining all sorts of body functions.

For example, a study published in *JAMA*, which involved 150,000 individuals followed from 1987 to 2003, demonstrated that people who are on proton pump inhibitors (patent medications that totally shut off stomach acid production) have a significantly higher risk of a hip fracture. The researchers reported that the risk of hip fracture steadily increased with the length of time the patent medication was taken, as well as with higher doses.³ They suggested that the hip fractures were caused because of poor calcium absorption caused by the stomach acid suppression.

Having low stomach acid also increases your risk of developing pneumonia. When researchers studied 364,683 individuals—5,551 of whom developed community-acquired pneumonia—they found that those on acid-suppressing meds were four times more likely to develop pneumonia.⁴

And in 2005 researchers noted once again⁵ the finding that antacid use significantly increases the risk of age-related macular degeneration.⁶

Recently, researchers found that the suppression of gastric acidity also interferes with the absorption of vitamin C (although at this point they don't know what causes this to happen). In research involving a commonly prescribed acid-suppressive patent medication, they reached the following conclusion: "We have shown that a short course [only 28 days of the patent medication] will cause a reduction in the plasma vi-

tamin C level of healthy volunteers. This decrease in plasma vitamin C is independent of dietary intake of the vitamin and indicates reduced bioavailability.”⁷

Vitamin C isn't the only nutrient affected by low or absent gastric acidity. Older research demonstrated that iron, calcium, folic acid, vitamin B12, and zinc are all poorly absorbed when your stomach acid is low.⁸

Step up your anti-aging routine

If you're seriously into health maintenance and anti-aging, you should work with your doctor to monitor your stomach acid. If you do have age-related gastric hypochlorhydria or achlorhydria—and we all develop one or the other sooner or later—the problem is fairly easy to treat. Talk to your doctor about taking hydrochloric acid and pepsin capsules to improve your digestion and balance the pH of your gastrointestinal system.

Although it's not as common, poor digestion and/or absorption can also be caused by low levels of pancreatic enzymes and by hidden gluten/gliadin sensitivity. So your doctor should check those levels as well.

Chapter 2:

The “youth hormones” that make weight loss nearly effortless!

By: Dr. Mark Stengler, Health Revelations

Are you fighting a weight-loss battle? By eating a healthful diet and exercising regularly, you can shed some weight—but then it’s common to “get stuck.” No matter how you modify your diet and exercise regimen, the pounds just stop coming off. What’s going on?

Your hormones may be the key. They influence appetite (when and to what degree you desire food)... *metabolism* (how you convert food to energy)... and *insulin sensitivity* (the degree to which your cells respond to insulin, which allows your body to use glucose).

If you have hit a plateau—or even have had a reversal—in your weight-loss efforts, it may be time for you to look more closely at your hormone levels.

To start, have them tested by a physician. Hormone levels can be detected from samples of blood, saliva and urine. A knowledgeable holistic

doctor will help you interpret the results and choose supplements or other natural solutions that will allow you to lose those additional pounds.

Important factors to consider...

How active is your thyroid?

Your body depends on thyroid hormones to regulate your metabolism. These hormones are produced in the butterfly-shaped gland just below your voice box. If thyroid hormones are in short supply, you can expect to gain weight. Assuming that your physician has ruled out any serious thyroid disease that must be treated in its own right, you can start to beat your weight problem by optimizing your thyroid function.

Natural solutions: For mild deficiencies—perhaps your levels are just a little off or are normal but you still have classic low thyroid symptoms, such as weight gain, fatigue, cold hands and feet, poor memory—look into one of these daily supplements or, even better, a formula that combines several of them. Take them until symptoms are better, and then taper off. If symptoms return, start taking them again—or have a doctor monitor you. If there is no improvement within four weeks, stop taking the supplements.

- **Bladderwrack** (a type of algae) contains iodine, which the thyroid requires for optimal functioning.

Typical dose: Two or three 500 mg capsules, in divided doses, for a total of 1,000 to 1,500 mg per day.

- **L-tyrosine** (an *amino acid*) helps the thyroid to manufacture hormones.

Typical dose: 500 mg twice daily on an empty stomach.

- **Homeopathic thyroid** (a minute dose of thyroid hormone or animal thyroid gland) stimulates your thyroid gland to produce hormones. Follow label directions.

- **Thyroid glandular** (an extract derived from animal thyroid tissue, typically that of a sheep) contains amino acids, vitamins and minerals that stimulate hormone production.

Typical dose: One to two capsules or tablets twice daily on an empty stomach.

Best formulas: I recommend Thyroid Support Liquid Phyto-Caps containing Bladderwrack and L-tyrosine from Gaia Herbs (800-831-7780, www.gaiaherbs.com) or Solaray's Thyroid Caps, which has L-tyrosine, iodine and thyroid glandular (800-669-8877, www.nutraceutical.com).

If your lab tests reveal a severe deficiency, you will be prescribed a thyroid hormone replacement program. Ask your doctor about natural thyroid replacement treatments, such as Armour Thyroid, Westroid, Nature-Throid and compounded thyroid tablets.

The power of DHEA

Dehydroepiandrosterone (DHEA) is an adrenal hormone that enhances metabolism. DHEA levels naturally decrease with age. A study of 56 men and women at Washington University School of Medicine found that those who took 50 mg of DHEA daily for six months experienced a reduction in belly fat and visceral fat—the fat that builds up around internal organs—both of which are associated with heart disease, diabetes and other serious illnesses. Insulin levels also dropped significantly, indicating better blood sugar control and insulin sensitivity.

Natural solutions: If testing indicates that your DHEA level is low—less than 100 mcg/dL—take DHEA. If not, take one of the other supplements described below. Get your levels checked every six months.

- **DHEA supplements** increase DHEA levels.

Typical dose: Up to 50 mg once per day. DHEA is available over the counter, but its use should be monitored by a physician. Potential side effects include facial hair growth in women and prostate enlargement in men.

- **Sterols and sterolins** are plant fats that are chemically similar to animal fats but have different biological functions. Sterols and sterolins support DHEA production by the adrenal glands. Moducare Capsules (877-297-7332, www.moducare.com) contain both nutrients.

Typical dose: Two capsules in the morning and one before bedtime on an empty stomach.

- **Cordyceps sinensis** (a medicinal mushroom) also helps support DHEA production.

Typical dose: 2,400 mg of a standardized water and ethanol extract of *Cordyceps sinensis* strain Cs-4.

The cortisol factor

Prolonged elevation of the stress hormone cortisol can contribute to weight gain. High cortisol levels can interfere with normal thyroid function and decrease insulin sensitivity, both of which lead to weight gain.

Natural solutions: Stress-minimizing techniques curb your production of stress hormones. My favorite stress relievers include regular exercise, positive mental imagery and prayer.

Your doctor can order a saliva test to measure your cortisol level. *If yours is elevated, consider...*

- **Ashwagandha** (an herb) reduces cortisol levels when taken daily. Look for products containing the patented ingredient Sensoril, which offers optimal concentrations of ashwagandha. Widely available products are Liquid Anti-Stress Plus Adrenal Support from Life Solutions Natural Products (a company in which I have a financial interest, 800-914-8771, www.lifesolutionsnp.com) and Tribulus Complex with Ashwagandha by Jarrow Formulas (310-204-6936, www.jarrow.com).

If cortisol levels have not come down after two months of taking ashwagandha, try...

- **DHEA**, described above, which also can reduce cortisol levels.

Typical dose: Up to 50 mg daily, taken under a doctor's supervision.

Estrogen dominance

Most women understand the importance of *estrogen*, but they might not realize that excessive amounts of this hormone can increase body

fat and promote fluid retention. Estrogen in women needs to be “balanced out” with *progesterone*, which has a *diuretic* (water-excreting) effect. Perimenopause, menopause and any health condition that interferes with ovulation (such as polycystic ovarian syndrome) will reduce levels of progesterone and give fat-building estrogen the upper hand. This is one reason why some women gain weight for no apparent reason.

Natural solutions: The nutrient *indole-3-carbinol* helps the liver metabolize estrogen. It is found in cruciferous vegetables—broccoli, cauliflower, cabbage and kale. I recommend eating at least one plentiful helping of any of these foods each day.

If a saliva, blood or urine test shows that your estrogen level is elevated even after you adopt an indole-3-carbinol-rich diet or if you just don't like to eat the above foods, try these daily supplements...

- **Indole-3-carbinol** helps the body metabolize estrogen.

Typical dose: 300 mg to 400 mg a day.

• *Vitex* (also called *chasteberry*, derived from the berries grown on the *Vitex agnus castus* tree) has been shown to improve the regularity of ovulation and raise progesterone levels.

Typical dose: 120 mg of a product standardized to 0.6 percent *aucubine* or 0.5 percent *agnuside* twice daily... or 800 mg of a nonstandardized supplement. *Vitex* is available from Nature's Way (to find a retailer, call 800-962-8873 or go to www.naturesway.com) and Enzymatic Therapy (800-783-2286, www.enzymatictherapy.com).

• **Natural progesterone cream** should be used as directed by your doctor for extreme progesterone deficiencies.

Typical dose: One-quarter teaspoon (20 mg) applied to the skin one or two times daily for two weeks before menstruation (stop when menses begin) or, if menopausal or postmenopausal, applied once per day. Consider Emerita ProGest (to find a retailer, call 800-888-6041 or go to www.emerita.com), a good brand that is commonly available in health-food stores.

The testosterone factor

Testosterone, a powerful hormone found in women and men, affects the body's ability to maintain lean muscle mass. It is primarily produced by the ovaries in women and the testes in men. A low level makes it more difficult to tone muscles and lose weight.

Natural solutions...

- **DHEA** is converted by women's bodies into testosterone. If a woman has low DHEA and low testosterone levels, then doctor-supervised supplementation of DHEA, as described previously, may improve both levels.

- **Panax ginseng** may help boost slightly low levels of testosterone in men and women.

Typical dose: 200 mg daily of a product standardized to five percent *ginsenosides*.

- **Tribulus terrestris** is a plant whose extract may increase testosterone amounts in men and women. So far, research has been done mainly with animals, but this herb appears to be safe. Tribulus by Source Naturals (for a retailer, call 800-815-2333 or log on to www.sourcenaturals.com) is a good choice, as is Life Solutions Natural Products' Liquid Natural Libido Enhancer (800-914-8771, www.lifesolutionsnp.com), which contains ginseng and, for a calming effect, the herb passionflower.

- **Natural testosterone** is available by prescription only and should be used when there is a moderate to severe deficiency. I prefer the transdermal gel or cream form, which is applied to the skin, because it requires less metabolism by the liver than pills.

Is insulin on your team?

Blood sugar (*glucose*) is terrific fuel for an active person, but you need the right level of insulin to transport the sugar from your bloodstream into tissue. A condition known as insulin resistance occurs when cells become less accepting of glucose and insulin levels spike. It is one factor that sets the stage for weight gain.

Natural solutions...

- **High-fiber diet** that includes seven to nine daily servings of fresh vegetables as well as three servings of whole-grain breads and cereals. Nuts, seeds and raw vegetables are especially good to help balance insulin levels. Stay away from simple-sugar food products, such as white breads, pasta, soft drinks, cookies and other sweets. For protein, avoid fatty red meats and favor quality sources, such as legumes, nuts, eggs, fish and poultry.

- **Help yourself to some cinnamon!** Studies show that it helps balance blood sugar levels.

- **Eat smaller servings** throughout the day rather than three big meals, so your body metabolizes food more effectively.

- **High-potency multivitamin/mineral supplement.** Everyone should take one daily for general health—it provides nutrients that, among other things, balance insulin levels.

If tests for fasting blood glucose and insulin indicate that you have insulin resistance, try taking all three of these additional supplements daily...

- **Chromium** (a mineral) is particularly important to balance blood sugar levels.

Typical dose: 400 mcg.

- **Alpha lipoic acid** (an enzyme that acts as a powerful antioxidant) reduces levels of insulin and blood sugar.

Typical dose: Up to 200 mg.

- **Fish oil** (an essential fatty acid supplement) improves insulin sensitivity.

Typical dose: One teaspoon daily or a one gram capsule, three times a day. Nordic Naturals fish oil supplements are widely available and free of mercury and other toxins (to locate a retailer, call 800-662-2544 or go to www.nordicnaturals.com).

Caution: If you are taking a blood-thinning medication, such as warfarin (Coumadin), check with your doctor before taking fish oil.

Root causes of weight gain

- Poor diet.
- Lack of exercise.
- Genetic predisposition.
- Hormone imbalance.
- Neurotransmitter imbalance, such as serotonin deficiency.
- Side effects of drugs.
- Toxins, such as chemicals (pesticides).
- Psychological reasons, such as stress, anxiety and depression.

Chapter 3:

Soothing the symptoms of IBS and colitis

The major problem with irritable bowel syndrome (IBS)—aside from the obvious ones it presents to people suffering from it—is that it’s sort of a “last ditch” diagnosis, meaning you’re only told you have it if and when everything else has been ruled out.

Clinical trials suggest that peppermint oil may be beneficial in the treatment of some symptoms of IBS. In the most recent one, 110 IBS patients took either a placebo or a capsule containing 187 milligrams peppermint oil three times per day, 15 to 30 minutes before each meal for one month. Patients taking the peppermint experienced improvements in abdominal pain, abdominal distension, stool frequency, and flatulence that were significantly better than those in the placebo group. If you decide to try peppermint oil, look for capsules that are enteric-coated. This sort of coating won’t allow the capsule to break down until after it has passed through the stomach and into the small intestine. Without a protective coating, peppermint oil capsules can cause heartburn.

Ulcerative colitis is often referred to in conjunction with IBS. It’s a chronic inflammatory disease of the colon. Herbalist Kerry Bone has

had a great deal of experience—and success—treating colitis with herbal remedies. His approach is based on the evidence linking ulcerative colitis to the nature and quantity of your gut flora (the friendly bacteria that live in your digestive tract). In fact, in cases of ulcerative colitis, the immune system is actually attacking the gut microflora, as opposed to the gut itself. This means that it's not strictly an autoimmune disease as such, because autoimmune diseases attack the body's own tissues. Basically, the gut inflammation in ulcerative colitis is collateral damage.

So having healthy bowel flora will decrease your chances of stimulating an attack from the immune system. And you can promote healthy bowel flora by reducing your intake of processed foods, by keeping fat and protein to a minimum, and by taking in lots of natural fiber and raw, organic fruits and vegetables.

It's also important to reduce your intake of sulfur-containing foods, which feed sulfur-reducing bacteria. These produce hydrogen sulfide, which is toxic to the already damaged gut lining. A pilot clinical study found that subjects who stuck to a low-sulfur diet for 12 months experienced a remarkable clinical improvement in their colitis symptoms. Patients in the study reduced their intake of red meat and completely avoided eggs, cheese, milk, ice cream, mayonnaise, soy milk, mineral water, and sulfated drinks (wines, cordials, syrups, and the like). They also avoided nuts, cruciferous vegetables, garlic, onions, and food that contained sulfur additives (such as dried fruit).

In terms of herbal supplements, Kerry recommends garlic and goldenseal because they reduce levels of harmful bacteria in the gut. Use either a freshly crushed clove of garlic or a garlic powder product (which mimics in the digestive tract what happens when you crush a fresh clove). These can be taken about two days per week.

But the top three herbs on Kerry's colitis-fighting list are St. John's wort, echinacea, and Boswellia. St. John's wort is extremely effective against viruses that have an envelope around them, such as cytomegalovirus (CMV), which is a virus related to herpes. More than 40 years

of studies have linked ulcerative colitis with CMV. And echinacea root helps fight any viruses or bacteria that are feeding the immune imbalance that creates gut inflammation.

A group of Indian and German scientists conducted a study to test the effects of the herb *Boswellia* in treating ulcerative colitis. For the study, 34 patients were given 350 milligrams of *Boswellia* resin three times a day while eight other patients were given the drug sulfasalazine (1 gram, three times a day). Symptoms like abdominal pains, loose stools, mucus, and blood improved in both groups, and about 80 percent of the patients receiving *Boswellia* went into remission.

Toxicity studies show that *Boswellic* acids don't cause adverse effects even after repeated administration. The dosage of *Boswellia* should be 200 to 400 milligrams of extract three times a day. The extract should be standardized to have a *Boswellic* acid content of about 60 percent.

Chapter 4:

Is this hidden illness leaving you tired, bloated and in pain? Cure it for good with a simple diet trick!

He's best remembered for setting the health industry on its ear with his revolutionary "Atkins Diet." But many people forget that Dr. Robert Atkins was a holistic doctor, just like me.

And when he introduced his new eating philosophy—when he fought back against the anti-fat mainstream and declared that carbs were the real health enemy—Dr. Atkins was just a physician trying to help his patients. He understood that a protein-rich diet that avoided health-destroying added sugars could help the people he treated lose weight, improve their heart health, control their blood sugar, and even sharpen their brains.

He saw the results at his thriving Manhattan clinic every day.

But decades later, we're learning an amazing new secret about Dr. Atkins low-carb movement—one that may turn out to be his greatest discovery yet. Because research is now proving that a high-fat, low-carb

diet may help millions of people conquer a debilitating digestive condition that's been making them sick for years.

An illness you might not even realize you have.

Change your EATING and change your LIFE

I regularly “prescribe” a low-carbohydrate diet to my patients. (I specifically recommend Paleo, and I'll tell you more about it in just a few moments.) And the reason why is simple; it works! In fact, hardly a day goes by that I don't see the dramatic results of a patient heeding my advice, cutting out the bread and slashing the “white carbs.”

They soon start to look great... but more importantly they FEEL great. And that's because when you change your eating you change your life.

But it's not just the weight loss that's making the difference. Adopting a low carb way of living doesn't just help you shed pounds, although it does that INCREDIBLY well. It has another huge side benefit that I don't believe even Dr. Atkins anticipated.

This hidden sensitivity could be why you feel so sick

It turns out the low-carb diet is an accidental diagnostic tool. Going low carb can reveal your undiagnosed gluten sensitivity because when you drop the carbs in your diet you're also dropping the gluten and that change can have dramatic effects for a significant number of us.

Gluten, a protein that's found mostly in bread, can be damaging to essentially every part of the body. In certain people who are particularly sensitive, the gluten protein acts like a toxin causing...

- joint pain
- fatigue
- bloating
- nerve pain
- muscle pain

As well as, literally, dozens of other troubling symptoms you may be feeling every day.

Gluten-free goes from fringe fad to mainstream acceptance

When gluten sensitivity first started to come to light, many in the mainstream refused to acknowledge it even existed. If you weren't suffering from celiac disease—a condition that makes you 100 percent unable to process gluten—then they insisted you could eat all the gluten you want.

But those of us in the trenches who were effectively eliminating a huge variety of troubling symptoms by putting our patients on low-carb/low-gluten diets knew different. When they stopped eating wheat, barley and rye they suddenly felt better than they had in years. It was, in effect, what we doctors like to call “an elimination diet,” which is often used to diagnose allergies and sensitivities.

I'm happy to say, the tide is finally starting to turn and gluten-free diets are losing their “fad” status. I'm even starting to see some straight-laced conventional gastroenterologists admit that gluten sensitivity is real. Some are even advising their patients who were once diagnosed with irritable bowel syndrome that they might, in fact, be gluten sensitive instead.

Now THAT'S progress. And an incredible legacy for Dr. Atkins whose pioneering work laid the foundations for the sea change.

Shed that spare tire AND eliminate gluten problems

Believe it or not, Dr. Atkins' low-carb message stretches all the way back to the mid-60s. In fact, he appeared on the Tonight Show in 1965. That was 27 years before his second book *Dr. Atkins' New Diet Revolution*, published in 1992, sold 15 million copies worldwide.

At the time America was smack-dab in the middle of a misguided low-fat brainwashing campaign—the devastating effects of which are

STILL being felt today. As Americans desperately tried to stick to the bland, unhealthy low-fat, high-carb lifestyle their doctors insisted was good for them, they grew fatter and fatter and got sicker and sicker.

Dr. Atkins' eating plan changed—and saved—lives. And over the years, the low-carb diet has evolved (or, depending on how you think about it, devolved). The Paleo Diet is the logical next step in low-carb eating, and it's the diet I typically recommend to my own patients.

Today's modern diet is full of processed refined foods, sugar and fats. The Paleo Diet, sometimes called the Caveman Diet, is based on the way our ancestors, early humans, ate. The diet is naturally low carb and low gluten and consists mostly of delicious fresh foods including meat, fish, vegetables, fruits, nuts, seeds and healthy oils. Dairy, grains, refined sugars and oils, potatoes and processed foods are all avoided.

If you suspect that you might have an undiagnosed gluten sensitivity I suggest you give the Paleo Diet a try. You might notice a change almost immediately.

PART VI

Immune System

Chapter 1:

Six simple steps to make your body “flu-proof”—no shot required!

Believe it or not, flu season starts up again soon. And that’s when our government will start trying to sell all of us one of the biggest lemons on the lot.

After all, would you buy a car from me that only started once out of every five times you turned the key? Of course not! And yet this past year’s flu shot was just such a car.

By the CDC’s own estimates, the 2014-2015 flu shot only worked 1 out of 5 times! In the end the vaccine was only effective in a dismal 19 percent of the cases. And although the numbers vary from year to year, this is by no means an isolated incident. In fact, in the 2003-2004 flu season the results were even worse.

Before you decide whether to roll up your sleeve next month, it’s important to understand why our government’s vaccine continues to fail us—and the six simple things you can do to stay healthy this season. No shot necessary.

Blind guessing can lead to big failures

Why are these statistics so low for a drug that conventional medicine feels so strongly about? First, influenza viruses are notoriously hard to replicate. There are many strains of the virus, and the flu vaccine manufacturers, in cahoots with government scientists, have to quite literally guess which strains will appear in a given year.

That's right, the contents of each year's flu vaccine is actually nothing more than a crap shoot. In some years, the major strains of influenza virus were missed entirely, leading to a situation in which millions of vaccines were given without any positive effect, even though there's some evidence that the CDC knew ahead of time that they were guessing wrong.

Mutations mean even correct flu shots can still fail

But bad or good guesses aren't the end of the story. Even if the strains are guessed right, the vaccine can lose effectiveness due to something called antigenic drift. The virus itself can mutate as it goes through the population. It remains the same virus, but looks different enough so that our immune systems don't recognize it as the same virus that was contained in the flu shot.

This is what happened when the H3N2 strain was the prevailing influenza virus strain causing the flu, but was altered enough so that the flu shot was ineffective. And this antigenic drift isn't always a natural phenomenon either. In 2012-2013, in the process of creating the vaccine the drug manufacturers actually introduced mutations of the H3N2 virus into the vaccine.

And then there's the problem of actually evaluating the vaccine's ability to do the job. When my patients get sick during the winter months, they tend to report it as "the flu." This is despite the fact that the most common flu symptoms are fever, muscle ache and (sometimes) a cough. On the other hand a stuffy or runny nose, bronchitis symptoms, stomach aches or sinus issues are far less likely to be influenza, and more likely to be triggered by a different virus or bacteria. And, of course, the flu tends

to be more severe and last longer. By one FDA estimate, only 20 percent of so-called cases of “flu” actually turn out to be the influenza virus.

Follow the money

Up until a few years ago, annual flu shots were generally only recommended for the elderly, people with severe respiratory illnesses and children. But then, with zero hard evidence that the vaccine had more widespread applications, the recommendations were suddenly extended by the CDC. Now, the flu shot is recommended for everyone, and we are pummeled by ads trying to shame us into rolling up our sleeves for it every time we turn on the TV or go to a grocery store, pharmacy or doctor’s office.

So why are we being harassed to get the shot for months on end? Well, to paraphrase the bank robber Willie Sutton: it’s where the money is. Producing a different flu vaccine every year is expensive and the pharmaceutical companies are hard-pressed to make the profit they want if only those people who truly may need the shot get it. So they started calling in favors in DC, and have been heavily lobbying Congress for years to expand the flu shot mandate. And it worked. Their profits have ballooned into the tens of billions of dollars, and there’s no end in sight.

At the same time, another factor is at work. Doctors are trained to believe that vaccinations are ALWAYS good medicine, and that even includes dubious ones like the flu shot. And most of them simply choose to ignore serious issues like occasional neurological problems linked to the vaccine; questions about the dangers of contamination and preservatives used in the shot; and whether our immune systems may be overstimulated by the sheer volume of vaccinations we’re receiving these days.

Six steps to foil the flu

Getting a flu shot is, of course, a personal decision. But if you do decide to not get one this year that doesn’t mean you need to remain unprotected. The flu can be a serious illness in some people, and even life-threatening to those at the highest risk. So it’s important to take measures to avoid catching the bug. And I have six drug-free steps that can help you stay flu-free this season.

Foil the flu step #1: The flu virus is a “droplet” virus, meaning it spreads in droplets when people cough and sneeze, or from exposure to nasal discharge followed by touching the mouth or nose. To combat this you should wash your hands well and frequently. You may even want to consider wearing a mask if you’re going to be in a situation where you might be exposed. (And if you get sick you can help stop the spread by always covering your mouth or nose when sneezing or coughing.)

Foil the flu step #2: Watch that sweet tooth. Sugar found in sodas, desserts, ice cream and many processed foods is a well-researched immune suppressor.

Foil the flu step #3: Get plenty of sleep, at least eight hours a night. Sleep is a great immune booster, and can help keep you from getting sick even if you’re exposed to the virus.

Foil the flu step #4: Make sure you’re getting enough daily zinc. Try a zinc supplement. I typically recommend 25-50 mg a day of zinc citrate, picolinate or other chelated form.

Foil the flu step #5: Stay hydrated by drinking plenty of water. Moist mucous membranes are powerful barriers against viruses and other infections.

Foil the flu step #6: Try homeopathy. Certain homeopathic remedies are designed to be taken at the first sign of the flu. *Occilococcinum*, the most well-known of these, is as safe as a remedy gets. We use *influezinum* in our office, and homeopathic formulas like these have been shown in studies to modify the symptoms of infections such as influenza.

Chapter 2:

Everyday exposure to hidden parasites could be making you sick

They're the kind of symptoms nobody ever wants to talk about; gas, bloating, abdominal pain, constipation, diarrhea and rectal itching. Embarrassment keeps a lot of people from ever going to see the doctor about them.

And far too many folks that do build up the courage to make an appointment get handed the catch-all waste-basket diagnosis of irritable bowel syndrome (IBS) for their troubles. The next thing you know, you're put on powerful drugs or restrictive diets that don't do a thing to help your symptoms.

If this sounds like you—and you've battled for years to get your stomach problems under control—the real cause of your troubles may shock you.

Because, believe it or not, many so-called IBS patients are actually infected with hidden parasites. And, these ugly intestinal bugs and worms are far more common than most people think.

And even if you're NOT suffering from any gastrointestinal woes, don't

think you're out of the woods yet. Although intestinal parasites can be behind just about any type of tummy trouble you can think of, their reign of terror could extend far beyond the GI tract leading to joint pain, headaches, fatigue, skin issues and even emotional and psychiatric symptoms.

Have you been exposed?!

When most people hear the word parasite they think of South America or Africa. But the truth is you don't have to travel anywhere exotic to be exposed to many of these ugly bugs. As I mentioned earlier, parasites are actually far more prevalent than most people think. And it's really quite common to pick them up right here at home.

The list of common potential parasite culprits may even shock you...

- Pets—"kissing" your beloved dog or cat
- Raw seafood—eating sushi and raw crustaceans
- Uncooked meat—meats served rare or medium rare bring a higher risk
- Water—drinking unfiltered water
- Hygiene—poor toilet habits
- Vegetables—eating certain unwashed vegetables (salad bars at restaurants)

Once you're infected it's relatively easy to infect other people, which can put your entire family at risk. Some parasites lay hundreds—possibly thousands—of eggs a day when they're active, meaning that if left untreated your entire system could eventually be infested with these bugs. And an infestation that lasts for months or even years can become increasingly difficult to fully resolve.

4 common testing flaws

The popular press has most Americans believing that if you're infected with a parasite you have to look as if you're wasting away and literally have—and please pardon the visual—worms coming out of your rectum.

The reality is that's FAR from the truth. But to make matters worse the so-called professionals often don't have a much better grasp on diagnosing parasites than the public does, which is why so many patients are misdiagnosed (usually with IBS) and miserable.

There are four major flaws to the testing methods that conventional doctors typically use that have led to a lot of frustrated and miserable patients:

Flaw #1: Parasites live in life cycles and if you're not collecting a stool sample at the time of the month that the parasites are "active" then the testing is really a waste of time. The trouble is it's hard to predict when the parasites will hatch. This leads to patients who are actually infected being cleared for parasites.

Flaw #2: Parasite eggs will perish when they're exposed to air for more than a few hours. Yet there are no preservatives used in the stool specimen containers that most laboratories use. By the time a pathologist is able to review a specimen it's often long past that short window of time; meaning, of course, that the parasites will be missed by the very test that was designed to find them.

Flaw #3: Many doctors fall for the colonoscopy myth. They believe that they will be able to see a parasite with a colonoscopy. In my almost 35 years on the job I have NEVER seen a colonoscopy reveal a parasite. And there are several good reasons for that.

First, the clean-out process for the colonoscopy is very thorough (if you've had one you know what I mean) and it wipes out any obvious parasites. Even more important, is the fact that parasites actually live INSIDE the colonic wall which will not be seen with the camera.

But the most obvious reason colonoscopies don't work is that many of these parasites live in the small intestine not the large intestine that's viewed in a colonoscopy. The small intestine, which makes up about twenty feet of the gastrointestinal system, is basically uncharted territory where these critters can hide.

Flaw #4: There are many different species of parasites and our current testing simply isn't designed to search for all of them... or even most of them for that matter. Parasites can range from microscopic ameba to large tapeworms. And some don't even live in the intestinal tract—such as a flukes that set up shop in your liver instead.

It's NOT all inside your head

These flaws leave doctors with the false impression that parasitic infections are rare. Even worse, unless a patient has been to a Third World country, or is rapidly losing weight, many doctors simply don't order tests for parasites any more.

They'll just diagnose you with IBS—and if you keep insisting you may have parasites, they may call you crazy. There's even a medical term for it—delusional parasitosis.

But I've had countless patients who had been told they're "crazy," but had their gastrointestinal symptoms clear right up when I treated them for parasites. And I've also treated patients who were told that their gastrointestinal problems were from IBS or stress, who then went on to pass handfuls of worms during my treatment for their parasites!

If you're suffering with mysterious symptoms and not getting anywhere with traditional mainstream medicine, you could very well be suffering from a hidden parasite infection. A holistic doctor should be able to help, or you can try tackling them on your own at home first.

Knock out parasites

If you suspect you have parasites I've got good news. You don't just have to live with them and you don't have to resort to heavy duty drugs to kick them. There are some safe, natural, and proven methods for ridding your body of these bugs.

Food: Let's start with diet. Certain foods could help you rid yourself of these ugly bugs. Raw garlic, carrots, beets, coconut, honey, pumpkin seeds, papaya seeds, cloves and pomegranate have all been traditionally used to kill parasites.

“Sesame seed” stool

Parasites are tough to diagnose. There’s seldom any visual evidence to tip you off. However, if you see something that looks like a sesame seed in your stool on a fairly frequent basis, there’s a good chance that what you’re actually seeing are the eggs of a parasite.

Tips to avoid parasites

Despite what you may have heard, you don’t have to do anything exotic to get parasites. In fact, you’re being exposed to these hidden ugly bugs every day. But there are some simple things you can do to avoid being infected.

- Cook meats completely and avoid eating raw fish, beef or pork
- Wash all fruits and veggies carefully (even those so-called “pre-washed” ones!)
- Avoid too many simple carbs like those found in processed and refined foods
- Drink only properly filtered water
- Wash your hands frequently and leave your shoes at the front door
- Keep your home mold and bug free (call in experts if you need too)
- Deworm your pets regularly, keep them off the furniture and glove and mask to clean up after them
- Take a quality probiotic from a maker you trust

In one study, published in the *Journal of Medical Food*, researchers found that a mixture of papaya seeds and honey was a remarkably effective method for killing off parasites. Sixty children with confirmed intestinal parasites were given either a papaya seed and honey mixture or honey alone for seven days and then follow up stool samples were taken.

The samples from 23 of 30 of the children who received the mixture instead of just honey alone were found to be anywhere from 71.4 percent to 100 percent clear of all parasites! Though less effective, the honey alone did manage to clear 5 of the 30 children of parasites as well. And, of course, there weren't any significant side effects from either treatment.

You can try blending fresh papaya, including about a tablespoon of the seeds, into a parasite killing smoothie. (There are also papaya powders on the market if you find that the seeds are a bit too bitter.) Raw pumpkin seeds, shredded coconut, coconut water and a dash of coconut oil and honey all make good parasite-fighting additions. Toss in a little fresh pineapple while you're at it and you'll also get a dosage of healthy digestive enzymes.

Also be sure to eat plenty of fiber rich foods and drink plenty of filtered water, both of which can help flush parasites from your system.

Supplements: Try a good probiotic from a maker you trust to help keep your digestive tract healthy and in top working order. Vitamin C and zinc are both excellent for overall immune system support.

Herbs: There are a number of herbs that have been traditionally used to tackle parasites including black walnut, garlic, goldenseal, barberry, anise, and wormwood.

Don't forget to check with your doctor to make sure that none of these supplements or herbs will interfere with any meds you're currently taking.

Chapter 3:

Forget the flu shot! Three natural flu-fighters you can rely on

I'm sure you've seen the news footage of the seemingly endless lines of people waiting and hoping to get one of this year's scarce flu vaccines. The shortage has created alarm and fear among those who rely on their yearly shot.

The advice from the Centers for Disease Control is that the current vaccine stocks are only to be used for those at highest risk—the elderly, the very young, and those with compromised immune function. But there's so little of the vaccine to go around, even people in these priority groups may “miss out.”

The good news is that there are herbs available that can help to prevent and treat the flu. The even better news is that there are clinical trials supporting their efficacy. Let's go over three of the most effective: Echinacea, Andrographis, and Eleutherococcus.

Natural immune boosters you can use all year long

Echinacea is already the best-known herbal product for colds and flu. But recently it has suffered from well-publicized problems involving poor

product quality and ineffective clinical trials. These problems can really be traced back to the fact that the Echinacea supplement market has become crowded, generic, and dominated by cheap, poor quality products.

So the key to the successful use of Echinacea to prevent winter illnesses is to know which form to use and how to use it. I believe that, as a preventative, the best form of this herb is the root, which is rich in phytochemicals known as alkylamides.

There is good clinical evidence for Echinacea root's cold and flu preventative effects. In fact, several years ago, a randomized, double-blind, placebo-controlled trial, demonstrated that a liquid extract of Echinacea root significantly reduced the incidence of winter infections in medical students. Med students tend to be highly stressed and more susceptible to illness during the winter.

The Echinacea liquid consisted of a flavored blend of *E. angustifolia* and *E. purpurea* roots (in equal quantities) standardized to contain at least 1 mg/mL of alkylamides.

Over the course of the trial, researchers tested three dosage protocols on the volunteers: High (4 mL twice/day, corresponding to a daily dose of 4 g of the Echinacea root combination), followed by medium (3 mL twice/day) followed by low (2 mL twice/day). The control group had about a 10 percent infection rate, but in the highest dose Echinacea groups, only 2 to 3 percent of the volunteers got sick.

The baseline preventative dose, which must be taken every day, should contain around 2.5 g of Echinacea root. When you feel a cold coming on, temporarily increase your dose to 7.5 to 10 g per day to ward off the infection, then resume your baseline dose. Contrary to what some reports have said, there is no harm from taking this form of Echinacea every day: It will not wear out your immune system.

The traditional Chinese way to fight the flu

In addition to Echinacea, the traditional Chinese herb *Andrographis* is emerging as another important immune-enhancing herb. A recent

review of many published studies found that *Andrographis* was more effective than placebo in the treatment of respiratory tract infections. *Andrographis* helps prevent winter infections too.

In a randomized, double-blind, placebo-controlled clinical trial, 107 healthy children received either *Andrographis* extract tablets (200 mg per day of extract, standardized to 11.2 mg andrographolide) or placebo for three months during the winter “cold and flu” season. This dose corresponds to about 1 g of the actual herb.

By the end of the third month, there was a significant decrease in the incidence of colds in the *Andrographis* group compared to the placebo group: The relative risk of catching a cold was 2.1 times lower for the *Andrographis* group. This study was done in children, so the dose is smaller than it would be for adults.

Adults need to take the equivalent of around 3 g per day as a preventative or about 6 g per day when you’re at risk of infections or when you’re actually sick.

The Siberian secret to boosting your immune system

The final key flu-preventing herb is *Eleutherococcus*, previously known as Siberian ginseng. In one double-blind study of 1,000 workers in a Siberian factory who received *Eleutherococcus* daily for 30 days, researchers observed a 40 percent reduction in lost work days and a 50 percent reduction in general illness over a one year period. Another placebo-controlled, double-blind German study demonstrated a strong enhancement of immune function, showing an increase in both natural killer cells and T-helper cells in healthy volunteers. These studies all confirm that *Eleutherococcus* can be considered a powerful, effective immune booster.

The optimum flu-prevention dose of *Eleutherococcus* is 3 to 4 g. One key point though, is to stop taking *Eleutherococcus* if you do get sick, because high doses during an acute infection are thought to make

the illness worse. Instead, you should up your Andrographis or Echinacea (or both if you're taking them together).

You do have to take these herbs year-round to get their full infection-fighting benefits, but that means they'll already be active—and you'll be protected—well before flu season sets in. It also means you'll be protected from colds at other times of the year—like the ones that always seem to come on just as the weather finally gets nice in early summer.

While you may not be able to get your annual flu shot this year, you can get all of these herbs fairly easily from healthcare professionals and pharmacies and natural food stores stocking professional herbal lines. So thanks to Nature's own flu-fighters, there's no need to panic—or to stand in line.

Chapter 4:

The common health problem that's more serious than you think

Part I: Uncovering the hidden cause of your nagging symptoms

For most of us, allergy isn't a *serious* problem. A little antihistamine for the nose and sinuses, some cortisone for the skin—case closed (at least until the next time). If the reaction keeps coming back, some people see an allergist, have “skin tests,” and get allergy shots, or rely on prescription antihistamines and/or inhalers. And if it's really, really bad, well, there's always Prednisone—a steroid often given to people whose allergy symptoms are too stubborn for the other methods. What else is there to know?

Well, as you might suspect, there's a lot more. In fact, there's so much to say about allergies I had to break it up in two parts. In this part, I'll cover testing and prevention. Next, I'll talk about treatments. But by the time you've finished this two-part series, you may well be reassessing your own nagging health problems (or those of a family member) from a new “allergy point of view.”

Putting 30 years of allergy research to work

Let's start with James Breneman, M.D., who first published the widely ignored but brilliant book *Basics of Food Allergy* back in 1978. When he published his book, Dr. Breneman was the Chairman of the Food Allergy Committee of the American College of Allergists (later re-named the American Academy of Allergy and Immunology), the most prominent organization for MDs specializing in allergy.

But even the other physicians specializing in the field were taken aback when Dr. Breneman wrote that 60 percent of all undiagnosed symptoms are due to food allergy or intolerance. After more than 30 years of medical practice, I think Dr. Breneman's estimate is a little too high—but not by much.

The following is a partial list of symptoms that Dr. Breneman identified as often (but not always) caused by allergy:

- **asthma**
- **bedwetting (enuresis)**
- **recurrent bladder infections**
- **recurrent bronchitis**
- bursitis
- **canker sores**
- celiac disease
- chronic low back pain
- depression
- diarrhea
- **recurrent childhood ear infection**
- **eczema**
- edema
- fainting
- fatigue
- **gallbladder "attacks"**
- **gas**
- **gastritis**
- headache
- **hives**
- **hyperactivity (ADHD)**
- hypoglycemia
- **irritable bowel syndrome**
- **itching**

- joint pain and swelling
- personality changes
- **recurrent infection (any type)**
- **sinusitis**
- **ulcerative colitis**
- learning disabilities
- protein in urine
- seizures
- **skin rash**

Two important points to remember: Allergy is a common cause of these problems, but it's not the only cause. The conditions in **bold type** above are ones in which allergy is involved at least 70-80 percent of the time. Second, and even more important—this is only a partial list of the problems that may be caused by allergy. As Dr. Breneman wrote, with the exception of symptoms from accident or injury, any symptom at all might possibly be “triggered” by allergy.

Dr. Breneman focused primarily on food allergy, but “conventional” allergists focus the majority of their efforts on diagnosis and treatment of allergy symptoms caused by dust, pollens, molds, grass, trees, flowers, and other growing things. But there's more to the environmental allergy equation than just those factors.

In 1962, Dr. Theron G. Randolph published another brilliant but widely ignored book: *Human Ecology and Susceptibility to the Chemical Environment*. In it, he discussed his 20+ years of observation of allergies caused by chemicals. These include chemicals contained in outdoor air pollution (industrial emissions, microscopic airborne particles from automobile tires, etc.), indoor air pollution (gasses emitted from plastics and particle board, etc.), agricultural and horticultural chemicals (herbicides, pesticides, insecticides), food chemicals (synthetic colorings, flavorings, preservatives, etc.), water contaminants (fluoride, chlorine, etc.), and synthetic drugs.

Allergies become a sensitive subject

The reason most conventional allergists overlook so many potential allergy triggers is that they can't be identified by “objective” testing. In other

words, if it doesn't show up on a blood test or skin test, they don't consider it a real allergy. Any other evidence of an adverse reaction (such as "I get dizzy, a headache, and almost pass out every time I smell that perfume") was—and still is—usually dismissed as "not an allergy" (at best) or "all in your head" (more usual). So Dr. Breneman, a board-certified allergist himself, compromised and wrote that allergic reactions that couldn't be "objectively proven" might be called "sensitivity reactions" instead.

But he also pointed out that the person suffering the "sensitivity" feels just as bad as if it were an "allergy." Basically, an allergy by any other name feels just as bad.

Are allergies to blame for your nagging symptoms?

Here are a few clues to help you figure out whether your own symptoms or those of a family member may be partly or even completely due to allergy.

Personal history of allergies. This is as good a spot as any to contradict all the pediatricians who tell moms that "children grow out of allergies." It isn't true! The symptoms of allergy may change: The recurrent ear infections, bedwetting, and eczema you had when you were a kid may give way to the migraines or gallbladder attacks you're experiencing now—but they're all caused by allergy.

If you've ever had any symptoms identified as allergy, even when you were a child, and you're having difficulty diagnosing or treating any symptoms now, there's a good chance your current symptoms are (at least partly) caused, aggravated, or triggered by allergy.

Allergy is a condition, not just a symptom or group of symptoms. The bottom line: Once allergic, always allergic!

Family history. Even if you've never had symptoms officially identified as allergy, if another family member has, then it's also quite possible that any undiagnosed but persistent symptoms you're having now are

due to allergy. Members of “allergic families” usually inherit the condition and do have allergic symptoms to some degree, even if they’re not severe enough to be classified as a full-blown allergy.

Physical signs. Sometimes allergies are physically obvious. This is especially true in children, especially smaller ones, but it is possible (though much less likely) for adults to have these indicators too.

In my experience, any child that has dark circles under the eyes is allergic. Horizontal creases in the lower eyelids (Dennie’s lines) result from allergy too, as does a horizontal crease across the lower end of the nose. Doris Rapp, M.D. and other allergists have also pointed out that children’s ears suddenly turning bright red is another physical sign of allergy. Colic in infants and unusual gassiness in children are also almost always physical reactions to allergy.

Scratch, patch, and drop

Skin testing is one of the oldest forms of testing for allergy. There are several varieties, including scratch tests, patch tests, serial dilution titration, and provocative neutralization.

Scratch tests are the oldest of the four types. In this technique, a drop of an extract of a potential allergen is placed on the skin, and a “scratch” is made in the skin under the drop. The allergist determines if the person is allergic to the substance (and how severe the allergy is) based on whether or not a red bump forms and how large it is.

Scratch tests are generally accurate for inhalant allergies (dust, pollen, mold, etc.) but aren’t very accurate for food allergies. Many allergists won’t even do skin tests for food allergy.

Patch testing is basically another version of skin testing. The allergist puts a drop of an allergen directly on the skin and covers it with a Band-Aid. Then the skin is observed for redness and/or swelling. Unfortunately, patch testing isn’t very effective for inhalants and is virtually useless for foods.

Dilution/titration and provocative neutralization are much more accurate and can diagnose both inhalant and food allergies. These techniques, particularly provocative neutralization, can be used for both testing and treatment. In fact, they can actually “shut off” many allergy symptoms entirely.

In both tests, patients are given a series of very carefully measured amounts of allergens, which are injected under the skin. The allergist follows a pre-set schedule and observes the patient’s reactions to each dose.

Both these techniques do take a considerable amount of time. Depending on the individual’s reactions, a test for one allergen can take from a few minutes to over an hour, or occasionally even longer. So testing for a number of potential allergens could take up most of the day. But the hundreds of thousands of individuals who have been successfully tested and treated using these techniques since the 60s would probably tell you it’s worth the time and effort.

Unfortunately, most board-certified allergists won’t do dilution/titration or provocative neutralization. To have this type of testing done, contact a physician-member of the American Academy of Environmental Medicine. (See the Alternative Health Resources section on page 485.)

Allergies in the blood

Blood tests come in several different forms—most of them with confusing acronyms for names, like “RAST” and its variant “MAST,” “ELISA,” and its variation “ELISA/ ACT.” Most of them measure antibodies specific to individual inhalants, foods, and (in some cases) other substances.

The problem is, many allergens don’t cause antibody formation or white blood cell damage, so blood tests will miss those potential triggers. But even if they can’t find everything, these tests can find a lot and can be very helpful in determining a wide variety of allergies—definitely enough to make a significant difference in an individual’s symptoms and over-all health.

It’s usually necessary to work with a physician skilled and knowledgeable in natural medicine and allergy/sensitivity to have any of these blood

tests done. (“Conventional” allergists sometimes do these tests too, but most don’t.) To find such a physician (M.D., D.O., or N.D.), contact one of the organizations listed in the Alternative Health Resources section on page 485.

Uncovering your “virtual allergens”

Electrodermal testing is one of the more controversial approaches to allergy testing. It’s also called Electroacupuncture According to Voll (EAV) and Meridian Stress Analysis (MSA). This technique was invented by Dr. Reinhold Voll of Germany, who observed that “acupuncture points” conduct tiny electrical currents differently than the rest of the skin.

Dr. Voll noticed that the current flow at acupuncture points varies if an allergen or toxin is placed near (though not necessarily in direct contact with) the person being tested. Eventually, Dr. Voll and his successors found that even a computerized representation of an allergen (a “virtual” allergen) would cause the same variation in current flow as the actual allergen itself. This allows physicians to test patients for hundreds of items in just an hour or two.

This is by far the best and least expensive way to test for sensitivity to synthetic chemicals.

Unfortunately, electrodermal testing is the subject of intense controversy. Many states (most notably California) have persecuted and prosecuted physicians using the technique. Left to politicians, it’ll take decades before electrodermal testing is widely available. It may not be widely available, but it is available. It might take some hunting and possibly even some traveling, but if you have nagging symptoms that aren’t associated with any specific condition, finding a source for electrodermal allergy testing could very well be worth it.

Subjective but effective

Kinesiology tests the “baseline” strength of a specific muscle or muscles. The person being tested is then put in direct contact with a potential allergen, and the muscle strength and resistance is tested again.

One of the most common ways this is done is to have the person being tested hold out their arm. The clinician instructs the patient to resist any force placed on the outstretched arm with all of their strength, and then he pushes down on the patient's arm. The clinician takes note of how much the person's arm moved and uses this as the baseline.

Then the practitioner gives the person being tested a vial containing a potential allergen and tells him to hold it while they repeat the previous step. If the person's arm goes down more easily when pushed this time, it's likely that the contents of the vial he's holding are an allergy or sensitivity trigger for him.

Kinesiology is criticized as being much more "subjective" than other allergy testing techniques, since it's entirely dependent on the skill and education of the individual doing the testing. It's done by various health care practitioners, most often chiropractors (D.C.s) and naturopathic doctors (N.D.s), but sometimes M.D.s or D.O.s, too. These professionals have seen both excellent and not-so-good results from kinesiology.

Lengthy testing, lasting results

Elimination diets are one of the oldest techniques for allergy testing. They obviously only detect allergies to foods and other ingestible substances (like medications).

During the testing process, the patient has to eliminate all but a few foods (ones unlikely to be allergens) from his diet for at least a few days. If his or her symptoms improve or disappear, chances are they were due to one or more of the foods (or chemicals in those foods, such as colorings, pesticides, herbicides, etc.) previously being eaten. The foods are then added back one at a time, and very careful observations are made to see which ones cause symptoms to resurface: Those that do are the person's allergens.

When properly done, this method is very accurate. The major drawback is the amount of time it takes to do an elimination diet: They can last anywhere from a few weeks to a few months depending on how quickly the allergens are identified.

Mysterious methods offer accurate diagnosis

Radionics is based on the concept that all living organisms are surrounded by an electromagnetic energy field. Practitioners diagnose allergies and other health problems by “reading” those energy fields and detecting abnormal vibrations.

It sounds a little “out there,” but radionics can be a useful diagnostic technique. Useful or not, though, most radionic practitioners keep a very low profile, or practice outside the USA. No wonder: In 1951, Dr. Ruth Drown had her radionics practice raided, her equipment smashed, and was charged by the FDA and California medical “authorities” of fraud. After numerous appeals, Dr. Drown was actually imprisoned for her so-called “offense.”

Some people have also effectively determined their allergies by using a pendulum. They’ve observed on their own that the pendulum swings very differently when exposed to something they’re allergic or sensitive to.

I’m sure there are many other “unconventional”—but very useful—allergy-diagnosing techniques that the AMA and each state medical board would just love to try to persecute/ prosecute, but, for the sake of all the people those techniques are helping, I’ll end the list here.

Prevention and treatment go hand in hand

It’s hard to separate allergy prevention and allergy treatment sometimes, since they’re often the same, especially when it comes to alternative approaches. In this part I’ll focus more on prevention in terms of how to control the factors that contribute to your allergies. In Part 2, I’ll go over some of the specific nutrients and other steps you can take to treat your allergic symptoms and even eliminate them altogether.

The first method of prevention is reducing the total allergic burden. This is one concept shared by both “conventional” and “natural medicine” practitioners and basically just involves limiting exposure to your known allergens.

The “threshold effect,” or “overflow effect,” is another variation of the “total allergic burden” concept. Like a partially full cup or glass, our immune systems can handle a certain amount of allergy without reacting. But once the cup or glass is full, a few more drops can make it overflow. Similarly, once the immune system is “full,” another allergen or two can cause the immune system to react—and not just to those last two items but to any number of allergens that never caused problems before the cup overflowed.

The key to preventing allergies using the threshold effect is to identify and deal with your allergens. You don’t necessarily have to find and eliminate all of them—just enough to drop below the threshold again.

Take control of your surroundings

Environmental control is another effective prevention technique used to reduce the overall allergic burden and to control symptoms. Environmental control is recommended more often for people with obvious inhalant allergy symptoms, but it’s actually helpful in reducing the total allergic burden for anyone who’s allergic. In other words, it may not directly help combat food allergies, but it can minimize exposure to other allergens, which can help you deal with any potential food allergies more effectively.

Indoor environmental control involves outfitting your house with allergy-resistant materials and devices. Special filters are placed in furnaces and in all the ducts of heating and air-conditioning systems. Carpets are replaced with hardwood, tile, or other hard floor surfaces with only a few (if any) area rugs. Central vacuum cleaner systems, again with special filters, are installed. And “regular” vacuum cleaners are replaced by “hypoallergenic” versions that have HEPA or other special filters.

Environmental medicine physicians often make additional recommendations like replacing synthetic materials (textiles, plastics, etc.) with natural materials.

Negative ion and ozone generators go a step further to reduce airborne allergens. In its most natural state the “electrical balance” of air

is slightly negative. Unfortunately, airborne allergens (both natural and industrial) are almost entirely positively charged, and positive electrical charges are very irritating to respiratory membranes.

Negative ions, on the other hand, help counteract the swelling and inflammation brought on by the allergy-triggering positive ions. Negative ion generators are sold in electronic specialty stores. They're quite safe and can be left on 24 hours a day. However, the generators do need to be cleaned regularly.

Ozone is highly negatively charged and does all the same things that “regular” negative ions do. But it has its pros and cons. On the “plus” side, ozone kills any micro-organism it contacts. Mold, bacteria, virus... it doesn't matter. With ozone, they're all dead. So your chances of infection are reduced. But very much on the minus side, ozone is very bad for respiratory membranes. If exposed for very long, delicate lung membranes can be temporarily or even permanently damaged. (Negative ions on their own will not do this.)

My recommendation: If you have allergy symptoms, particularly respiratory allergies, buy a negative ion generator and keep it on permanently. If you buy an ozone generator too, only turn it on as you're leaving the house, and turn it off immediately on returning home. It's best to stay out of the room containing the ozone generator, or even step outside, for about five minutes until the airborne ozone is almost entirely gone.

All these strategies can cut down your risk of encountering your allergens and triggering an attack. In part II, we'll talk about how to stop those attacks when and if they do happen.

Part II: Simple solutions for treating—even eliminating—your allergies

You may not be able to prevent all allergies, but you can cut them way down and even eliminate them in some cases. We just went over some prevention strategies, so now let's move on to treatment.

It's worth a shot

Allergy shots are one of the most common tools used by mainstream allergists. Patients are given very tiny quantities of the very items to which they're allergic. Quantities are slowly increased over time until the person builds a resistance to the allergen and it no longer causes an adverse reaction. No one knows for sure how these injections “switch off” the allergic response, but they usually do.

In most cases, conventional allergists only use allergy shots to treat inhalant allergies, but physician-members of AAEM have developed very effective injectable techniques to treat food allergies: Provocative neutralization and serial dilution titration. While they're very effective, the major drawback to these techniques is the amount of time spent in the doctor's office. It's not unusual for it to take a week or more of all-day sessions, which may need to be repeated every few weeks, to make a significant difference in allergy symptoms.

Allergy “drops” use even smaller homeopathic dilutions of the substances to which an individual is allergic. One of the biggest differences is that the drops are taken under the tongue rather than by injection. Most of the time, precise dosages of these drops are determined with electrodermal testing.

The drops are taken under the tongue two to four times daily and usually need to be continued for six to 12 months. Every six to eight weeks, the patient returns for follow-up testing and dosage adjustments.

As is the case with “conventional” tiny-dose allergy shots, there's no explanation as to how even-tinier-dose homeopathic drops work, but

once again, they usually do. And they appear to be effective for both food and inhalant allergies

Health practitioners have used both electrodermal testing and homeopathic allergy drops as treatment since the 1980s with considerable success.

Nutrients can help—but they’re not cure-alls

Vitamins, amino acids, and botanicals can all help reduce—and in some cases eliminate—inhalant allergy symptoms. However, keep in mind that they’re only “symptom relievers” and aren’t nearly as effective for food allergies as they are for environmental allergies.

Vitamin C is always the first vitamin to try. It’s been shown to reduce bronchial, nasal, and sinus allergy symptoms. I recommend the “bowel tolerance” quantity of vitamin C. Basically, this means using as much vitamin C as possible, every three to four hours, without causing gas or loose bowels. For some people, this is 1,000 milligrams (1 gram) three to four times daily; for others, it can be 4 grams or more three to four times daily.

Years ago, nutritionist Adelle Davis recommended the use of 1,000 milligrams of pantothenic acid (vitamin B5) along with vitamin C. Some people with inhalant allergies find taking this combination three to four times daily helps relieve their symptoms more so than vitamin C on its own; others don’t. Fortunately, it’s harmless at these quantities.

Sometimes it’s better to take a step backward

Allergic reactions, particularly more serious ones, have been treated with adrenaline injections since the 1930s. But one group of researchers took this approach a step backward and tested the effects of natural adrenaline precursor molecules on allergy symptoms.

The body makes adrenaline from the amino acid tyrosine, with the help of pyridoxine (vitamin B6) and niacinamide (a form of vitamin B3). So the researchers asked 492 individuals with hay fever, allergic headaches, and “poison oak” allergy to take these supplements.

In mild to moderate cases, quantities were 200 to 600 milligrams of tyrosine along with 2.5 to 7.5 milligrams of pyridoxine and 10 to 30 milligrams of niacinamide four times daily. In more severe cases, quantities were 1,200 milligrams of tyrosine along with 15 milligrams of pyridoxine and 60 milligrams of niacinamide four to six times daily.

The study participants reported that their itching seemed to be under control within four to 16 hours and that their hay fever symptoms, allergic headache, and poison oak were better in two to five days. Although there weren't any reports of side effects of any type, the research did note that symptoms were sometimes aggravated in the first few days—especially in chronic disorders. They also emphasized that the treatment only worked if all three nutrients were taken at the same time.

Although apparently harmless, these are very large quantities of tyrosine for a 24-hour period, so not many people have tried this treatment. But those who have all say it's helped, from a little to a lot. The only side effect I've heard of is insomnia from larger quantities, particularly if the person takes the combination late in the evening.

Two non-Ephedra herbs just as effective for combating allergies

Like nutrients, herbs are most effective for inhalant allergies. Unfortunately, the most effective one is also the most controversial. Ephedra sinica (also known as ma huang) is the “prototypical” decongestant herb. It also acts as a bronchodilator, opening up airways and allowing people to breathe easier during allergy or asthma attacks. Contrary to the media hype surrounding it, when it's used in traditionally recommended quantities (125 to 250 milligrams of a 10% “standardized” extract three times daily), Ephedra is safe and usually quite effective for the majority of people who tried it before the FDA ban. The ban has since been overturned, and products containing 10 mg of Ephedra or less (per serving) are legal, but it will probably take quite a while for it to become common again.

In the meantime, 300 milligrams of *Urtica dioica* (stinging nettle) and 1,000 milligrams of quercetin (sometimes with bromelain) three to

four times daily can also alleviate hay fever and other nasal/sinus allergies. Both are quite safe, but I've found that the results aren't very consistent: Some individuals find substantial relief when taking one or both of these herbs, others try and find it very little help.

The drug-less drink that can halt acute allergy attacks

Most over-the-counter and prescription drug treatments for inhalant allergies include antihistamines (most of which are synthetic, patentable versions of flavonoids) and decongestants (most of which are synthetic, patentable versions of Ephedra).

Other major categories of prescription drugs for inhalant allergy include higher-potency bronchodilators and synthetic versions of cortisone. Try to avoid cortisone whenever possible and never use it long-term: Possible adverse effects include an increased risk of cataracts, even in young people, along with suppressed immunity, and increased susceptibility to infection.

Drug treatment of food allergies is almost non-existent unless it's a very serious acute situation. In those cases, adrenaline, prednisone, and other synthetic cortisone preparations are usually used—often justifiably. When a child's kidneys are shutting down due to allergy, prednisone can be life-saving. If breathing is seriously impaired because of a reaction to peanuts, an injection of adrenaline can stop the reaction in its tracks.

However, if an allergic reaction is serious but not yet an emergency requiring a trip to the hospital, sodium bicarbonate stirred into water and drunk as rapidly as possible can bring the reaction under control in a relatively short time—often in less than an hour. The “bicarbonate in water” remedy (1 to 2 teaspoons stirred into 6 to 12 ounces of water) can be repeated as often as necessary until the symptoms are gone.

This method works because acute allergic reactions bring on a rapid acidification of the bloodstream. Bicarbonate neutralizes the rapidly growing acidity and usually reverses the allergic reaction.

Two specific formulas called TriSalts and Alkala are even more effective than sodium bicarbonate in emergency situations, but they aren't as readily available. If you have frequent serious allergic reactions, it's a good idea to talk to your doctor about these products.

Some physicians prefer sodium ascorbate (an alkaline form of vitamin C) to sodium bicarbonate, since it combines alkalinity with vitamin C, which fights allergy in its own way. I personally recommend taking the sodium bicarbonate (or TriSalts or Alakala) first, followed within an hour by 1 to 2 teaspoons (4 to 8 grams) of the sodium ascorbate form of vitamin C dissolved in 6 to 12 ounces of water.

Keep in mind, though, that this method should not be used as an “everyday” remedy for chronic allergy. It could ultimately lead to excess alkalinity in the blood, which can cause its own set of problems.

Have your allergies and eat them too

There are some treatments that are helpful specifically for food allergies. The first is to pay close attention to digestion. The relationship between digestion and food allergy is really a “chicken and the egg” situation: Food allergy can impair digestive function, and faulty digestion can cause food allergy. It's usually impossible to say which is the cause. So the most practical and effective approach is to always consider, test, and treat both conditions at the same time.

At a minimum, you should have a Heidelberg capsule test done to measure your stomach acid production.

Also consider having a comprehensive stool and digestive analysis, which evaluates the adequacy of pancreatic digestive enzyme output and other aspects of digestive function. If you do have digestive abnormalities (usually underproduction of one or more “digestive secretions”), taking supplemental digestive aids with each meal will not only improve your digestive function and the assimilation of nutrients, but it will also slow down or prevent the development of additional food allergies.

Elimination diets are the time-honored method of uncovering food allergies. They're also an effective treatment, particularly if impaired digestion isn't a factor. Not eating the foods you're allergic to for long enough usually allows you to re-introduce them back into your diet gradually without re-activating your symptoms.

Elimination diets can be very time-consuming and restrictive. But on the “plus” side, they're quite inexpensive and effective.

Sometimes, just following a “rotation diet” is enough to help manage food allergies without employing other techniques. But more often, they're combined with food allergy desensitization for faster results. In a rotation diet, the patient can't eat any of his or her particular food allergen more than once every four to five days. This minimizes the impact of each individual allergen and doesn't let them build up in the system, magnifying symptoms. Since only the “major” allergens are completely eliminated, and then only for the first 30 to 60 days, rotation diets are easier to manage than elimination diets (although still not easy) and are most effective if the patient can fully eliminate the major allergens for a month or two before re-introducing them.

Nambudripad Allergy Elimination Technique (NAET) is a “body work” or “body energy” procedure that's actually very difficult to describe in just a few words. In very simplified terms, it involves mildly stimulating a patient's central nervous system while he is being exposed to an allergen. This stimulation “reprograms” the brain and energy flow in the body so that it doesn't recognize the allergen as a threat anymore. It usually requires weekly visits to an NAET practitioner for several months. Each visit takes about 10 to 20 minutes.

NAET is most often used for food allergy elimination, but it can also be effective for inhalant allergies.

Although NAET is very controversial with conventional allergists and medical doctors, it's helped tens of thousands of individuals eliminate multiple allergy symptoms.

Reversing the trend

While no one can say for certain why cases of allergies appear to be on the rise, the evidence does seem to point to industrial pollution and other man-made substances, which have altered the normal functioning of human immune systems.

An article published in the British medical journal *Lancet* years ago pointed out that while asthma was written about in ancient Greek and Egyptian medical writings, the very first cases of “rose fever” (now called “hay fever”) and upper respiratory allergy weren’t recorded until the early 1800s.

The first cases occurred in the immediate vicinity of Britain’s first major industrialized city, Liverpool. At first, there were so few cases that most doctors refused to believe them and actually ridiculed the doctors who published the case reports (sound familiar?).

But the *Lancet* authors hypothesized that this first concentrated center of industrial pollution (at that time, smoke, dust, and soot from coal were the major culprits) caused a few very sensitive individuals’ immune systems to malfunction, developing adverse reactions to many other items, both natural and man-made.

The authors went on to track the spread of rose fever across Britain and found that it directly correlated to the spread of industrialization. And the process repeated itself in other countries as they also underwent industrialization.

Since that time, literally millions of unnatural, man-made molecules and compounds have been released into the air, soil, and water. The widespread use of herbicides, pesticides, and insecticides started in industrialized nations in the early 20th century and has since spread around the planet. There’s no doubt that many of them cause immune system malfunction and a tendency toward allergies (among many other problems).

But industrial pollution and agricultural chemicals are only part of the picture. Health care practitioners and parents have observed that im-

munizations can also trigger allergies in children. The number of immunizations and vaccinations made with live viruses has increased dramatically in the last two decades, and human immune systems, particularly immature human immune systems, just aren't designed to handle the load.

Then there's the absolutely irresponsible practice of filling dental cavities with mercury-silver amalgams. Numerous studies have shown that mercury compounds cause immune system malfunction.

It's also true that allergy (like any other health problem) runs in families.

The list goes on and on...and it's a trend that's probably not going to be reversed any time soon. But with the strategies for detecting, preventing, and treating your allergies we've gone over in the past two issues, you can reverse your own allergy trend.

The best single resource for a very strong focus on allergy testing and treatment is the American Academy for Environmental Medicine (AAEM). This group of physicians investigates and treats all aspects of allergy, "conventional" allergy, chemical allergy and sensitivity, and food allergy. This is the first group I recommend contacting for "all things allergic." AAEM may be reached at (316)684-5500, www.aemonline.org.

However, many members of other natural medicine organizations (the American College for Advancement in Medicine, the International College of Integrative Medicine, and the American Association of Naturopathic Physicians) are also very good at allergy testing and treatment. See the Alternative Health Resources section on page 485 for these organizations' contact information. It's best to speak to each individual doctor's office about how much and what types of allergy/sensitivity testing and treatment are done there.

Chapter 5:

5 ways to make sure you've had your last bout with the common cold— And 3 cures you never knew could work so well

If you, your children, or grandchildren never get colds or the 'flu, then you can safely skip this chapter. Still reading? I thought so. But there's a lot you can do keep yourself and your family from catching those occasional—or not so occasional—colds. In fact, there's a good chance that if you follow the steps I'm going to outline you may have had your last bout with these all-too-common nuisances.

And if you do come down with one at some point, there are several research-proven things to do to make colds go away a lot more quickly. Some of them, like vitamin C and zinc lozenges, are things you've likely heard of and probably even tried at some point or another. Whether or not they were effective, though, depends on some important details.

But before we get into the details that will help make those old standbys work as effectively as they should, let's talk about how you can keep from needing them in the first place.

Give your white blood cells a (germ) fighting chance

The first step in beating cold and flu season once and for all is the same first step for preventing many illnesses—get rid of the sugar!

Decades ago, Professor Emanuel Cheraskin and his colleagues demonstrated that refined sugar significantly impairs the ability of white blood cells to fight germs. To reach this conclusion Professor Cheraskin drew blood samples from research volunteers, and then observed under a microscope how many germs the average white blood cell could destroy per minute. One hour after each volunteer swallowed approximately 1 teaspoonful of refined sugar, his or her white blood cells could only destroy half as many germs as before. And the white blood cells didn't recover their full "germ-eating" capability until four to five hours later.

So as Professor Cheraskin observed at subsequent lectures, if an individual ate a sweet roll or doughnut for breakfast (or even just sweetened his or her coffee or tea with sugar), then had a soft drink or candy bar at lunch, ate a piece of pie or other sugared dessert at dinner, and perhaps had some ice cream before bedtime, the only time he or she should ever expose him or herself to germs should be between 2 AM and breakfast time. Otherwise the likelihood of catching an infection would be significantly greater since the person's white blood cells would be impaired from sugar all day long.

Granted, the "germs" Professor Cheraskin's team observed were bacteria, not "common cold" viruses. But it's been my experience in over many years of practice that eliminating refined sugar (as well as refined carbohydrates) is absolutely necessary to minimize or eliminate colds.

Uncovering and eliminating (or desensitizing) allergies is a close second to eliminating sugar when it comes to cold prevention. Many family health practitioners have seen this in children with recurring colds, sore throats, ear infections, bronchitis, and 'flu. If the recurring infection hadn't subsided after the parents got rid of all the refined sugar in the child's diet, they would then check the kids for allergies, particularly food allergies. Every single one of these children had significant food allergies, and if the offending foods were eliminated (or in the long run, desensi-

tized), the recurrent colds and infections always vanished (or nearly so, except perhaps for the very infrequent case of sniffles).

The same strategy applies with adults, although in general adults have a greater proportion of inhalant allergies than children, which can only be dealt with by total removal from the environment, or desensitization.

Build your body's store of "natural human antibiotics"

Taking care of sugar and allergies will give your immune system a solid foundation for fighting all kinds of infections, including colds and the flu. But there are also a few supplements that can support your efforts even further.

Some of the most exciting recent vitamin D research has demonstrated its ability to prevent viral and other infections by stimulating the production of "natural human antibiotics" in your body. (For the best discussion of recent vitamin D research available anywhere, see www.vitamincouncil.com.)

For adults, I recommend 3,000 to 4,000 IU of vitamin D daily, for children, from 1,000 to 3,000 IU, depending on size. (It's certainly best to check with a physician skilled and knowledgeable in natural and nutritional medicine for recommendations for children.)

Many people still believe that long-term use of Echinacea can have adverse effects. The truth is that there is solid evidence showing this herb's ability to increase the production of natural killer (NK) cells in the body. NK cells are a critical part of fighting off any type of infection. To help prevent colds Kerry recommends 1 to 3 grams of dried Echinacea root per day. Echinacea is available in all natural food stores, compounding pharmacies and even many national supermarket and pharmacy chains.

A product called "Cold-fx," a standardized extract of American ginseng (*panax quinquefolius*) was touted as the "official cold and flu remedy of the National Hockey League and the National Hockey League Players Association." Double-blind, placebo-controlled research showed that regular use of a single 200-milligram Cold-fx capsule daily significantly

reduced the incidence of colds, and that when colds did occur, their duration was significantly shorter.

The evidence is convincing enough that the Canadian equivalent of the FDA recently “approved” Cold-fx and allows it to bear the therapeutic claim that it “helps to reduce the frequency, severity, and duration of cold and flu symptoms by boosting the immune system.”

Cold-fx is available at some compounding pharmacies, natural food stores and in some national pharmacy chains.

The germ-killing duo you need at the first sign of a sniffle

One of the things that makes Cold-fx unique is that it works for both treatment and prevention. Most people think that the next item on the list does so as well. But research on vitamin C done decades ago showed that this nutrient doesn’t actually help prevent the common cold. It does, however, reduce the severity and duration of colds that do occur.

At the very first sign of a cold, I recommend taking a minimum of 1 gram of vitamin C four times daily, and if the vitamin C is tolerated well (meaning it doesn’t cause loose bowels or diarrhea), considerably more is safe and even more effective.

Next to vitamin C, one of the most effective germ- and infection-fighting treatments available is something known as, colloidal silver, but I prefer to use a slightly more technical name, nano-particulate silver. The “nano-particulate” part is very important because the smaller the particle size of the silver, the greater the germicidal effect.

I recommend Argentyn 23™ and Sovereign Silver™, both of which are available at natural food stores and compounding pharmacies. At the first sign of a cold, use 1 tablespoonful to start, and then continue to take 1 teaspoonful on an empty stomach every 3 to 4 hours while you’re awake until the infection is gone.

Unlike vitamin C, nano-particulate silver should not be used every day (unless recommended for a very particular reason by a physician

skilled and knowledgeable in nutritional and natural medicine), but reserved only for treatment of active infections.

Forget what you've heard: Zinc can knock out colds in half the time

Some individuals with have sworn that zinc lozenges are “almost miraculous” for treating colds. Others swear they're useless. Research studies have been equally conflicting. The answer to this apparent contradiction is that *certain types* of zinc lozenges are indeed very effective, while other types are not very effective at all.

Ananda Prasad, Ph.D. (professor at Wayne State University School of Medicine) is widely recognized as one of the leading researchers and authors on zinc. Recently, he gave a presentation at the meeting of the International Society for Trace Element Research in Humans (ISTERH) about a randomized, double-blind, placebo-controlled study he and his colleagues conducted to examine the effects of zinc acetate lozenges against the common cold.¹

Fifty research volunteers took either zinc acetate lozenges (which contained 13.3 milligrams each of elemental zinc) or placebo every three hours while awake, starting within 24 hours of the onset of cold symptoms. In the zinc acetate lozenge group, the subjects' colds lasted an average of 3.5 days versus 7.4 days in the placebo group. Coughs lasted a mean 2.1 days and nasal discharge 3.0 days in the zinc acetate lozenge group versus 5.3 days and 4.7 days in the placebo group. In essence, the zinc cut the amount of time the subjects spent sick in half—that's quite a significant reduction (just ask anyone suffering a cold).

This was actually Dr. Prasad's second positive research report about zinc acetate lozenges shortening the mean duration of the common cold and its symptoms. Seven years ago, he published similar results in the *Annals of Internal Medicine*.²

As in his recent study, Dr. Prasad enrolled 50 volunteers who each took zinc acetate lozenges (these ones containing 12.8 milligrams each of elemental zinc) or placebo, every 2 to 3 hours while awake, within 24 hours of the onset of cold symptoms. Compared with the placebo

group, the zinc group experienced results similar to those seen in the recent study: Shorter overall duration of cold symptoms (4.5 vs. 8.1 days), cough (3.1 vs. 6.3 days), and nasal discharge (4.1 vs. 5.8 days) and decreased total severity scores for all symptoms.

A tasteful solution to zinc's spotty reputation

But despite the fact that Dr. Prasad's two research reports (as well as several others) have been very positive, there have been almost as many negative reports about zinc lozenges' ability to treat colds—including first-hand accounts from many people who have tried them and say they had no effect. So what's the real answer?

The real answer is that the zinc itself isn't what's contributing to the conflicting results: Zinc has been proven to interfere with virus replication by direct contact, as well as in other ways. So there's no doubt that the zinc itself works. To sort out which zinc lozenges are actually effective, you have to look at the “rest of the story,” meaning all the other things going into the various zinc lozenge products that have been put on the market since the first positive research on zinc and colds was published back in 1984.³

When you buy a mineral supplement, you never just buy just the mineral itself. The mineral is always attached to something called a “binding ligand” which makes it stable, and (in some cases) easier to absorb. For example, calcium tablets or capsules don't contain just calcium; they contain calcium carbonate, calcium lactate, calcium citrate, or some other “form” of calcium. Similarly, magnesium is sold as magnesium oxide, magnesium citrate, magnesium glycinate, magnesium taurate, and many other forms. Zinc is sold as zinc picolinate, zinc citrate, zinc aspartate, and—in lozenges—zinc acetate.

Making zinc lozenges to treat common colds is particularly tricky for manufacturers. First, the goal of the zinc lozenge isn't absorption of the zinc as it is with capsules or tablets. The goal of the zinc lozenge is to rapidly release the zinc so it can come into contact with both the cold virus itself and the mucous membranes of the mouth, throat, and surrounding areas.

But while it's doing that, the zinc lozenge must also achieve its second goal—to taste good, or at least acceptable, even to small children. Un-

fortunately, anyone who's ever tasted an "elemental" liquid zinc solution in chemistry class (usually zinc chloride) knows that zinc tastes terrible!

As George Eby, one of the original zinc lozenge researchers, explained: "[Manufacturers] found that zinc gluconate forms very bitter complexes with all sweet carbohydrates (except fructose) upon aging for a few days to a few months, depending on the exact formulation... Manufacturers and researchers alike in desperation to solve the taste problem added metal chelators, reduced [zinc] dosage or used other non-ionizable zinc compounds, resulting in a loss of Zn²⁺ ions and efficacy, with at least two formulations actually making colds worse in clinical trials; reports of which temporarily discredited this major medical discovery."⁴

But sometime before 1990, Mr. Eby found that zinc combined with acetate could be made into compressed tablets or hard candy lozenges that were both stable and pleasant tasting. When the lozenges dissolve, the zinc and acetate rapidly break apart, releasing the ionic (positively charged) zinc to come into contact with both the viruses and mucous membranes where it can "do its job." Research continued until zinc acetate lozenges were proven to be effective when mass produced. And this technology still holds today: As noted above, Dr. Prasad's very positive work used zinc acetate lozenges.

At present, to make certain of effectiveness against the common cold virus, I recommend only the zinc acetate lozenge formula designed by George Eby, called Zinx™. You should start taking it within 24 hours of the onset of cold symptoms, and continue with another dose every two to three hours while you're awake until the cold symptoms are completely gone.

Zinx™ lozenges are available through a few natural food stores and compounding pharmacies)

How to juggle that ounce of prevention and pound of cure

Obviously, prevention is always best. Your chances of eliminating or at the very least minimizing your bouts with the common cold are excellent if you follow the preventive measures noted above. But just in case, and particularly if you have children at home, it's a good idea to have some

nano-particulate silver (Argentyn 23™/Sovereign Silver™) and zinc acetate lozenges (Zinx™) in your pantry, along with a powdered form of vitamin C, which can be stirred into liquids to make it easier to take larger doses.

Of course, while getting better as quickly as possible is the ultimate goal when you come down with a cold, there are a couple of precautions to bear in mind before bombarding your system with all of these treatments at once.

Certainly eliminating sugar and allergies, and taking vitamin D, Echinacea, and Cold-fx are all compatible with each other and can be taken together safely. Vitamin C can be used with all of these, too, but at higher (treatment) quantities it's best taken with food to reduce chances of gastric irritation. By contrast, nano-particulate silver should be taken on an empty stomach, with no food for at least one hour before or after. And, as I mentioned above, nano-particulate silver isn't a preventive measure to be used on a daily basis. It should only be used when you're actually sick.

And last but not least, make sure you don't swallow those Zinx lozenges. To get the germ-killing effects, you should let the lozenge dissolve completely under your tongue. After that, you might gargle the resulting liquid or otherwise "swoosh it around" your mouth to try to contact as many infected surfaces as possible. If there's any liquid left after doing all this, it won't hurt to swallow it—after all, it's a low quantity of zinc—but it does the most good against the "common cold" by contacting the lining of your mouth and throat.

Chapter 6:

Fight lupus without dangerous prescription drugs

DHEA supplementation has shown to be effective in decreasing the need for prednisone (a cortisone-like drug often prescribed to patients with this disease) in people with lupus. It also appeared to have a beneficial effect on overall well-being, fatigue, and energy levels.

Some recent research has also uncovered a connection between the 2/16 ratio and lupus that could open up a whole new avenue of treatment for people suffering from this painful condition.

Researchers measured the “2/16” estrogen metabolites in 32 people with lupus and 54 healthy individuals. They reported that although all groups had very similar levels of 16-alpha-hydroxyestrogen (a “bad” estrogen), the healthy individuals had 10 times more 2-hydroxyestrogen (a “good” estrogen) compared to the individuals with lupus. That’s as far as the study went, but if you have rheumatoid arthritis or lupus, it suggests another possible way to improve your symptoms.

First, you should have your own “2/16” ratio measured. It’s a simple process you can do at home by ordering a test kit, collecting urine samples for 24 hours, and sending them back in to the lab. If your results aren’t

good (meaning you have more 16-hydroxyestrogen than 2-hydroxyestrogen), following the steps for correcting the imbalance may help ease your symptoms.

But since lupus is well known to be accompanied by numerous allergies to both foods and supplements (as well as other things), it's also a good idea to have a thorough allergy screening for both foods and potential supplements done before you get started with treatment.

Once you've gotten the "green light" to move forward, start adding more Brassica vegetables—broccoli, cabbage, cauliflower, bok choy, Brussels sprouts, etc.—to your diet. These vegetables contain a substance called indole-3-carbinol (I-3-C), which can help improve your 2/16 ratio.

You may also want to consider taking supplements of another 2/16-regulating nutrient called di-indolylmethane (DIM), 60 milligrams three times daily.

I-3-C also comes in supplement form, but, more often than not, individuals with autoimmune disease also have hypochlorhydria, a condition in which the stomach doesn't produce enough hydrochloric acid to effectively digest and assimilate foods and supplements. I-3-C needs stomach acid to help it work, so DIM supplements are a better choice. But, once again, determining whether or not hypochlorhydria is a problem for you—and treating it if it is—is a good idea in general: It will improve your overall health and your current symptoms by helping your body get the most benefit from the foods and supplements you take.

As you can tell, these suggestions can get a bit complicated, so it's wisest to work with a physician skilled and knowledgeable in natural and nutritional medicine to help you navigate through the tests, allergy screening, and anything else that may occur.

Contact the American College for Advancement in Medicine (800)532-3688; www.acam.org) for a list of physicians in your area.

Chapter 7:

Stunning research reveals gut bug balance causing everything from diabetes to colon cancer!

There an old adage among holistic docs that says health begins and ends in the gut.

Unfortunately, most of our mainstream colleagues have been a little slow to catch on. When most docs talk about gut bacteria or probiotics, they focus on how they affect digestion and even your bowel movements.

But we're learning fast that there's a whole lot more at stake than an upset tummy. Research is proving that maintaining a healthy balance of gut bugs (I'll show you how in a moment) can help you beat everything from diabetes to depression.

In fact, gut bacteria may even hold the key to beating one of the deadliest cancers around.

Is bad bacteria giving you colon cancer?

A recent study, published in the journal *Genome Medicine*, found that keeping enough healthy bacteria in your gut may be a powerful secret to preventing colon cancer.

Researchers analyzed the gut bugs in colon cancer patients and found they were far different than those of their cancer-free peers. Those volunteers with cancer had many more bacteria in their stool, including pathogenic—or potentially disease-causing—bugs than the healthy volunteers.

But even more telling was the fact that one of the bacteria the researchers found in greater quantity, *Providencia*, has been proven to damage the lining of the intestine.

It appears that infections caused by bad gut bugs like *Providencia* slowly damage the lining of the colon over the years. This damage eventually causes the healthy cells to turn into cancerous ones.

This groundbreaking theory not only provides us with a much greater understanding of how and why colon cancer occurs, it also provides us with a potential path to conquering this formidable foe once and for all. Some simple short- and long-term changes to our diet and supplement regimen could be all it takes to get the upper hand over these bad bacteria.

I'll have more on those changes in just a moment, but first let's take a closer look at what else we know about the connection between belly bugs and our overall health.

Could bacteria in your belly make you fat?

This cause-and-effect connection between gut microbes and cancer isn't as farfetched as it may seem at first glance. In the last decade we've seen a seismic shift in the way we view gut bacteria. Although we're really just beginning to understand the connection between our gut flora and disease, studies from the last several years have already linked the bacteria in our guts to inflammation, diabetes, mood, obesity and more.

In fact, two recent studies found that our gut flora may be at least partially responsible for whether we're overweight or normal weight.

The studies found that obesity is tied to a form of bacteria in the gut called Firmicutes. Obese patients had about 20 percent more of the Firmicutes bacteria on board. While another bacterium, Bacteroidetes, was

clearly associated with normal weight, with the obese patients having a shocking 90 percent less of the bugs.

However, when the obese patients lost weight the bacterial balance in their intestines shifted. Suddenly the thinned down patients had less of the fat producing Firmicutes in their guts and far more of the Bacteroidetes bacteria. Even more incredibly, when the obesity-linked Firmicutes species was implanted into “skinny” mice they actually gained twice as much fat as a control group of mice. It turns out the Firmicutes bacteria are apparently far more efficient at extracting calories out of food and depositing them in fat.

Belly bug balance linked to diabetes risk

In another study out of China in 2012 researchers revealed the link between the balance of bacteria in the gut and diabetes. Scientists looked at more than 60,000 markers associated with type-2 diabetes and found that people with the disease had an overabundance of bad bacteria and a lack of the helpful bugs in their guts.

And of course antibiotics, which use a scatter approach that kills off both good and bad gut bacteria, are associated with insulin resistance and diabetes. In fact, one recent study found that the more often you take the drugs the higher your risk of the disease rises. Downing an antibiotic just five times within 15 years can cause your diabetes risk to skyrocket by 50 percent compared to someone who took the drug just a single time or never.

Probiotics blow away anxiety

UCLA researchers have even found a link between gut bugs and how we think and feel. Within just four weeks of taking a probiotic supplement there were measurable changes in the brains of women who took them.

The areas of their brain that effect cognition and emotion and sensory stimuli were all affected, according to the study published in the journal

Gastroenterology. In the real world that means that the probiotics could help improve mood, reduce anxiety and perhaps even relieve depression. In fact the women in the study were subjected to tests designed to make them feel uncomfortable and those who received the probiotics were measurably less anxious than their peers.

Putting probiotics into action

So how do you keep yourself healthy and maintain your balance of gut bugs? Here are some simple things you can try:

1. Start with a quality probiotic supplement from a maker you trust. Look for one that contains several different strains of bacteria.
2. Limit the amount of sugar and processed foods you eat. They provide fuel for bad gut bugs. I recommend the Paleo Diet which focuses on the meats, vegetables, nuts and other natural foods that our ancestors would have eaten.
3. Next, beef up the number of fermented foods in your diet which will naturally help raise your good gut bug levels. Some good ones to try are non-sugar sweetened yogurts and kefir. In general you should limit the amount of dairy you eat, but dairy that's been fermented long enough to eat up the majority of lactose in it, in moderation, is fine.

You can also try homemade “pickled” fruits and vegetables such as sauerkraut, dilled cucumbers and gingered carrots (there are lots of recipes online, search for “homemade fermented foods”).

4. Work with a holistic doctor to test your gut flora and to get advice on achieving an optional gut bug balance.

Stick to this simple plan and before you know it your gut will be the picture of perfect health—and so will the rest of you.

PART VII

Women's Health

Chapter 1:

Forget your annual mammogram! New tool offers better, earlier breast cancer detection (and it's pain-free, too!)

Over the years, I have heard from many women who have reservations about mammography for breast cancer, and some who just refuse to get mammograms altogether—especially every year for a decade or more. Their concerns are understandable: While it's true that mammograms have increased the detection of breast cancer, more and more flaws associated with this screening tool have come to light too.

Some studies have found the sensitivity of mammography to be as low as 25 percent. In other words, it only detects about one quarter of breast cancers. Mammograms' "specificity" (accurately identifying an area as cancerous) is even worse: It can be as low as 17 percent—which means that as many as 83 percent of areas deemed "suspicious" from mammogram images actually turn out not to be cancerous after further checking. Obviously, this puts many women and their families through a great deal of unnecessary worry and emotional turmoil.

In addition, a little-publicized Canadian study of over 70,000 women found that mammograms done between ages 40 and 50 actually did not increase the breast cancer detection rate! The researchers attributed this finding to the fact that women’s breast tissue is denser between ages 40 and 50 (after age 50 breast tissue “thins out” due to menopause). Even though this study is well-known among medical “authorities” in these United States—and has never been refuted—these same “authorities” rarely mention it, and continue to recommend annual mammograms to all women over the age of 40.

But besides the general lack of accuracy, there’s an even darker side to mammography. It involves radiation, which (if repeated) actually contributes to breast cancer risk. In fact, each mammogram increases risk of breast cancer by 1 percent. So if you follow the “expert” recommendation to get a mammogram every year after you turn 40, by the time you’re 50, you’ll already have increased your chance of getting breast cancer by 10 percent.

And a follow-up to the Canadian study mentioned above disclosed that the women in the 40 to 50 year age group who’d had annual mammograms actually had a slightly higher death rate from cancer than women who only underwent manual breast exams.

Certainly doesn’t seem like a very good trade off!

All this probably leaves you wondering if there isn’t something else you can do to detect breast cancer—especially early cases. We’ve been wondering the same thing for a long time! Fortunately, there is equipment that can do the job.

Detect cancer without increasing your risk

In the 1950s it was discovered that cancerous tissue maintains a steady temperature independent of cooling or heating the surrounding tissue—and the concept of thermography for breast cancer screening was born. Thermography has been researched since then, gaining FDA “approval” in 1982 (the same year “regular” mammography was approved,

incidentally). Many versions of thermography (with variable reliability) have existed, leading up to this latest version, called infrared thermography, which has proved to be very reliable: It only misses 5 to 10 percent of cancers and the number of false positives is equally low.

Infrared thermography detects differences in heat given off by the body (in this case, the breasts) by precise measurement of infrared frequency wavelengths. These wavelengths are very close to visual frequencies, and measuring them doesn't involve radiation like what is used in mammography, x-ray, CAT scans, and other tests. So thermography won't increase cancer risk, since nothing is "beamed" into or at the body.

In addition to not using radiation, thermography has other advantages too. First of all, there is no compression of the breasts, which is good news for at least three reasons: 1.) It's painless; 2.) Women with implants can relax; and 3.) It eliminates the concern that preexisting cancer will be spread by the compression of the tissue.

Another benefit of thermography is that it's very likely—although not yet proven—that it's more accurate for women ages 40 to 50, since breast tissue density makes no difference to heat emissions.

Thermography can also tell you and your doctor other important things about your breast health in addition to assessing the possibility of cancer. It's also possible for it to identify fibrocystic breast disease and hormone imbalances.

Of course, the goal is always to prevent breast cancer.

Prevention is even more important than detection—even early detection—and thermography can help with that, too. In contrast to mammography, which detects only anatomical changes in the breasts, thermography detects functional changes in breast tissue. It finds areas of abnormally increased or decreased blood flow. This is a huge advantage, since cancer takes approximately 5 to 10 years to reach a size detectable with mammography or physical exam. With thermography, we're able

to monitor functional changes associated with very early breast cancer and possibly even changes which precede breast cancer. Although it's too soon to say for certain, it's very possible that appropriate treatment may reverse those risk-associated changes.

So with the goal of prevention in mind, I now recommend that women have a yearly breast thermogram starting at age 40, or age 30 if you have a family history of breast cancer.

What to expect from the breast thermography “experience”

To make sure thermography is as accurate as possible, temperature reading is the “name of the game,” so the procedure is performed in a room kept at 68° F. You sit in this cool temperature wearing the infamous “examination gown” (definitely not Dior!) for 15-20 minutes while your breast health history is reviewed. After you've acclimated to the temperature, a set of three pictures is taken—one frontal and two oblique (an angle between front and side)—followed by a one-minute “autonomic nervous system stress test” and another set of three images.

The autonomic system stress test involves placing your hands in cold water for exactly one minute. This challenge tells your body to send all the available heat via the blood from the surface of the body, inward. Any breast tissue that isn't functioning properly will not be able to do this and will then be highlighted on the second set of images.

Your appointment is finished with a manual breast exam, the findings of which are included in the notes that are sent with the thermographic images to be interpreted. (All thermographic images are sent electronically via the Internet to a qualified expert in thermographic image interpretation.)

Buyer beware

Although thermography is FDA “approved” it is still in the early stages of organization, so the facilities offering it may or may not have

kept up with the many advances in thermographic technology. A high quality thermographic imaging facility should at least include the following four things:

- **Temperature-controlled room:** This is a must, since you're measuring temperatures! If the room is too hot, the results won't be accurate.
- **High-definition radiometric camera:** This kind of camera measures actual temperatures, not temperatures calculated from colors on the image or averaged temperatures from a video card. With this type of camera, temperature measurement is much more accurate and can be repeated and compared with even more accuracy.
- **Autonomic challenge test:** As I mentioned above, the autonomic challenge is usually done by having the client place her hands in cold water for 60 seconds. Although it's not the most pleasant experience, it's vital to a complete infrared thermogram and greatly increases the accuracy. Without it, the number of abnormal results are often much higher than they actually should be and cause unnecessary follow-up testing and considerable worry. (As a side note, non-radiometric cameras will not be able to detect the changes caused by the autonomic challenge test.)
- **Quantitative and qualitative interpretation:** This is the most up-to-date interpretation scoring system at this time. It includes both "qualitative" data—including hot spots, cold spots or irregular vascular patterns, along with "quantitative" data, which includes temperature readings from each of the 76,000 "pixels" recorded by the radiometric camera.

At present, there are many more practitioners offering mammograms than infrared thermograms, but the number of certified thermographers is growing. To find a certified thermographer near you, go to the International Association Of Certified Thermographers (IACT) website: www.iactthermography.org.

To read more about the thermography research discussed above, please refer to the following study:

Kuhl CK. “The ‘coming of age’ of non-mammography screening for breast cancer.” *JAMA* 2008; 299(18): 2,203-2,205

I am very grateful to Olivia Franks, N.D., C.T.T (Certified Thermographic Technician) for much of the information contained in this chapter.

Chapter 2:

The natural secret to great sex after menopause

Over the years, it seems that much more attention has been paid to male sexual health and satisfaction than it has to female. Contrary to what the mainstream medical community might want to believe, that women are interested in having fulfilling sex lives too—yes, even after menopause. But sometimes it just physically isn't that easy. Atrophic vaginitis can make sex downright unpleasant for many women. This condition is very common and includes symptoms like vaginal dryness, itching or burning, painful sexual intercourse, light bleeding after intercourse, and sometimes incontinence.

You may have all of these symptoms or just a few. But, since the usual treatment for this problem is hormone replacement therapy (HRT), you may have decided to “just live with it,” rather than face the risks that have recently surfaced regarding synthetic hormone replacement.

Keep in mind you can take hormone replacement safely with all-natural, identical-to-human HRT, but there may be an even simpler solution—all-natural ginseng.

Decades ago, a British researcher found that *Panax ginseng* can be used effectively to treat atrophic vaginitis. Women with a history of vaginal dryness and painful intercourse were asked to volunteer for biopsies of the vaginal mucosa. When examined microscopically, the biopsy specimens showed typical atrophy, with a thinner skin and little to no mucous production. Physical examination prior to biopsy showed the same changes.

The women were asked to take *Panax ginseng* for two to three months. Repeat biopsies showed significantly thickened mucosa with more normal surface mucous. Physical examination showed the same types of changes, and women reported disappearance of vaginal dryness and painful intercourse.

I usually advise 100 milligrams of a standardized *Panax ginseng* extract three times daily. After comfort has returned and symptoms have diminished, you can usually lower your dosage of ginseng to an appropriate maintenance level that works for you.

No one should have to give up hope, comfort, or great sex after menopause. If any of the symptoms listed above apply to you, *Panax ginseng* is certainly worth a try. It's available in almost any natural food store, as well as many pharmacies and supermarkets.

Chapter 3:

Breast cancer—stop the most feared disease among women from happening to you

It's no wonder that breast cancer is the biggest fear of so many women. All you hear about these days are the dismal odds: Currently, researchers expect one in eight women—that's 17 million—to be diagnosed with the disease. And the treatment options are nothing short of barbaric: Surgery that leaves you disfigured, radiation that leaves you swollen and tender, and chemotherapy that leaves you weak, bald, and nauseous.

Sure, there are a few brave women (like Suzanne Somers) who refuse the conventional recommendations and opt for alternative natural therapies. But even if they succeed in their fight against the disease, they have to endure the constant and critical questioning of their decision—not exactly the most supportive environment for a cancer patient (who needs it most).

But with all of the attention focused on breast cancer lately, I'm disappointed at how much of it is geared toward, basically, waiting until a woman actually has the disease and dealing with it then. Unfortunately, this has been the standard practice for years—though I'm sure you'd rath-

er not become a part of that “standard.” So why not focus on preventing breast cancer before it ever happens?

Most mainstream doctors would probably say that we just don’t know enough about the causes of breast cancer to focus on prevention. That’s partially true: Not all of the causes of the disease have been identified, so you can’t completely eliminate the risk. But we do know about enough causes and risk factors to make it possible for you to cut your risk way back. First you have to determine just how at risk you are.

Measuring your levels of various estrogens is a simple technique to help predict if you’re at higher risk for certain types of cancer (especially breast and uterine). Then, once you have that information, supplementing with the right kind of estrogen (along with other supplements and a diet rich in certain foods) can reduce your risk of ever getting those cancers—or possibly even help treat existing cases.

But since not all estrogen is created equal, let’s take a few minutes to go over some of the intricacies.

Five estrogen metabolites you need to know about

The term estrogen doesn’t actually describe a single molecule; instead, it’s a “group word” covering two dozen or more molecules all built on a common framework. Since these molecules are transformed (metabolized) one into another into another, they’re also all called estrogen metabolites.

The “early days” of estrogen research focused mostly on three estrogen metabolites called estrone, estradiol, and estriol.

Over the last three decades, with improved analytic techniques and evolving research interest, attention has turned to some of the other estrogen metabolites, including “good” and “bad” estrogens. The technical terms for these are 2-hydroxyestrogen (good) and 16 α -hydroxyestrogen (bad), and together they make up what’s known as the 2/16 ratio. High 2/16 ratios generally mean a lower risk of estrogen-related cancers (like

breast, uterine, and ovarian). Low 2/16 ratios mean higher risk of these same cancers. (I've also observed an unusual number of low 2/16 ratios in men with newly diagnosed prostate cancer, and men with a strong family history of cancer.)

The good news is, testing your own 2/16 ratio couldn't be easier. You don't even have to leave home to do it. Some changes in the actual testing equipment have made the process a lot easier. In fact, the testing kits can be mailed to you at home, where you'll collect a urine specimen in the container provided. If you're pre-menopausal, try to collect the urine specimen during days 19 to 23 of your 28-day cycle, and be sure to note the cycle day and time, in case you need to take a repeat test or two. When you've collected your sample, just mail it back to the lab.

Once you send your sample back to the lab, it generally takes about two to three weeks to get your results.

Eat your way to a breast cancer-free future

You definitely want more “good” (2) estrogen than “bad” (16) estrogen—substantially more if possible. So when you get your results, check the proportion of these two substances: Any ratio below 1.0 is unfavorable. Although there's no consensus on an ideal ratio number, I recommend 2.0 or greater if possible.

If your 2/16 ratio is less than 1.0, there's a good chance you'll be able to boost it just by eating a few specific foods. Start with Brassica (or mustard family) vegetables. These include cabbage, broccoli, cauliflower, bok choy, Brussels sprouts and many others. You can also eat freshly ground flaxseed, 1 tablespoonful daily. You don't need to go overboard with Brassica vegetables. I know it seems odd to be warning you not to eat too many vegetables, but it is possible for Brassicas to cause suppressed thyroid function and even goiter if you eat a lot of them on a daily basis. Three to four servings a week is a good general range.

In a lot of cases, just eating these foods will bring a low 2/16 ratio to 1.0 or above in just four to six weeks without any other specific supple-

mentation. But if you find you're still not getting sufficient improvement, you can also take di-indolylmethane (DIM) supplements to boost it even further. DIM is actually a substance found in Brassica vegetables, but it's also available in most health food stores in supplement form. If you need some extra help, take 60 milligrams three times daily, and check your 2/16 ratio again in another four to six weeks.

Should you or shouldn't you? An answer to the soy question

When soy became a big-ticket item for American business giants, we were hit with an enormous wave of pro-soy promotion. Some of it is actually true. For example, in Asian countries where soy products are eaten regularly, the incidence of breast cancer is definitely lower.

But there's also been a "research backlash," including a recent study showing that former breast cancer patients who ate soy had a higher rate of cancer recurrence than a control group that ate no soy.

Despite the negative soy research, I'm not completely anti-soy. There is also a good deal of research about soy's health benefits. And incorporating soy products (tofu, tempeh, soy milk, etc.) into your diet is a good option for boosting 2/16 ratios. A little goes a long way though, and two or three servings a week is plenty.

Another do-it-yourself breast cancer risk test

There's another estrogen ratio that's just as important as the 2/16 for estimating your risk of estrogen-related cancer. It's called the estrogen quotient, or EQ.

As I mentioned above, early estrogen research focused mostly on three estrogen metabolites: Estrone (also labeled E1), estradiol (E2), and estriol (E3). Although it's only present in small quantities in the body, estradiol is the most "potent" estrogen, responsible for most of the feminizing changes of puberty. Unfortunately, estradiol and its nearby metabolite estrone were both found to be carcinogenic. Researchers found that the body treats

these two hormones with extreme care, rapidly converting them to estriol. As far as anyone could tell, estriol didn't have any carcinogenic tendencies.

With all of this in mind, Henry Lemon, M.D. (a women's cancer specialist), came up with an equation that, like the 2/16 ratio, can estimate a woman's risk of breast cancer. He called this idea the estrogen quotient, or EQ, and formally it's the amount of estriol divided by the sum of the amounts of estrone and estradiol. In mathematical terms, it looks something like this: $EQ = E3 / (E1 + E2)$.

If a woman's EQ is low, her risk of breast cancer is higher. Basically, the higher the EQ, the better.

Sounds too easy to be true, but time after time the EQ proved itself. Take a look at some of Dr. Lemon's EQ research:

In 34 women with no signs of breast cancer, Dr. Lemon found the EQ to be a median of 1.3 before menopause and 1.2 afterward. The picture was quite different in 26 women with breast cancer. Their median EQ was 0.5 before menopause and 0.8 afterward.

In another study, Dr. Lemon found that women with higher EQs survived significantly longer after cancer surgery than women with lower EQs.

So, knowing that women need more estriol to boost their EQs, Dr. Lemon also tried using estriol treatments for breast cancer. He asked a small group of women with untreatable breast cancer (because it had metastasized to bones) to take a large dose of estriol. By the end of the study, an astounding 40 percent of these women had their cancers go into remission.

Less estriol, more cancer

Of course Dr. Lemon's EQ and estriol findings met with their share of criticism, and some researchers did publish claims disputing Dr. Lemon's results. But there was also plenty of additional evidence supporting him. For example:

- In one study of 150 close relatives (sisters and daughters) of breast cancer patients, researchers found that the majority had lower lev-

els of estriol and higher levels of estrone and estradiol than women without a family history of the disease.

- American women (who have higher levels of breast cancer) have lower levels of estriol than Asian women (who have lower levels of breast cancer). Asian women living in Hawaii had levels of estriol midway between American women and Asian women living in Asia...and their levels of breast cancer were also midway between American and Asian women.
- Estriol enhances the ability of white blood cells to consume viruses, bacteria, and cancer cells.
- Women who have had children have significantly lower risk of breast cancer than women who have never had a child. During pregnancy, estriol levels climb enormously—by 1,000 times or more. Even after childbirth, estriol levels usually remain higher than they were before pregnancy.

This last bit of “pro-estriol” evidence concerning pregnancies leads me to some recent estriol research, which is once again reviving the “more estriol, less cancer” hypothesis.

A one-time boost can protect you for up to 40 years

In this one, 15,000 women were studied during a pregnancy occurring between 1959 and 1967. Invasive breast cancer cases or deaths from breast cancer were tabulated through 1997. What makes this study so remarkable is the fact that it looked ahead so far into the future of such a large group of women. Prospective studies like this are considered much more reliable than retrospective studies (ones that look back on information after it has occurred). And the results of this particular prospective study make it even more impressive:

The researchers found a clear protective effect based on the amount of estriol the women produced during their pregnancies: More estriol,

less cancer later in life. Women in the uppermost 25 percent of estriol production during pregnancy had 58 percent less breast cancer over the next 30 to 40 years than women with the lowest 25 percent of estriol.

The authors concluded (cautiously, of course—they'd be laughed out of their lab coats by mainstream medical “experts” if they didn't down-play findings that nature might know best after all): “If confirmed, these results could lead to breast cancer prevention or treatment regimens that seek to block estradiol estrogen action using estriol, similar to treatments based on the synthetic anti-estrogen, tamoxifen.”

After a decade or two of neglect, the EQ and the “estriol hypothesis” of estrogen-related cancer prediction and prevention (and maybe even treatment, like Dr. Lemon's unpublished research) are back. And some researchers are even starting to admit that maybe, just maybe, estriol in its natural form might work as well as (or even better than) synthetic drugs like tamoxifen.

What's your EQ?

Dr. Lemon tested estriol along with estrone and estradiol by having women collect their urine for 24 hours, then measuring the hormone levels in the specimens. It's still done the same way, and, like the 2/16 ration test, you can have a kit mailed to you at home, which makes things much more convenient, since you'll need to collect all your urine for a 24-hour period (only a small portion of the total collected amount is actually mailed in for testing, though).

If you haven't gone through menopause yet, and you have a menstrual cycle that follows the typical 28-day pattern, pick a 24-hour period between days 19 and 23 of your cycle (day 1 being the first day of menstrual bleeding) to collect your sample. If you've already gone through menopause, you can collect your sample anytime.

Again, once you send your sample back to the lab, it generally takes about two to three weeks to get your results.

The virtually fail-safe EQ-booster: You may only need one drop a day

When your results arrive in the mail, you'll see all of your different hormone levels listed. The ones we're most concerned with for determining breast cancer risk via the EQ are estriol, estrone, and estradiol. Remember, it's not the absolute amount of estriol that appears to be the most important number but the relative amount of estriol compared with the sum of estradiol and estrone. Again, the equation looks like this: $EQ = E3 / (E2 + E1)$.

The lab report might already have your EQ calculated and listed. Some labs today consider EQs of 0.4 to 0.6 as normal. But when Dr. Lemon did his research back in the 1960s and 1970s, he found that women need an EQ of at least 1.0 (this level or above was considered favorable; the further below 1.0, the more unfavorable). So was Dr. Lemon wrong?

Well, let's put it this way: If women only need an EQ of 0.4, why has breast cancer risk gone up? Not only do I think you still need an EQ of at least 1.0, as Dr. Lemon found 40 years ago, but in today's environment, with the amount of estrogen-mimicking carcinogens increasing dramatically, it's more important than ever to keep your level of estriol as high as possible. So I don't see any reason why we shouldn't still follow Dr. Lemon and shoot for an EQ of 1.0 or above.

If your EQ is below 1.0, there's a simple, almost fail-safe solution: SSKI. SSKI is a solution that combines iodine and potassium. It's the iodine that works to boost the EQ: Iodide (and iodine) reliably promote the metabolism of estrone and estradiol into estriol.

Take six to eight drops of SSKI mixed in several ounces of water daily for two to three months. Then repeat your test, doing the 24-hour urine collection at the same time of the month as your first one. More likely than not, your follow-up EQ will be above 1.0—sometimes considerably above. If it is, try tapering down the SSKI to the smallest amount that helps you maintain your EQ at 1.0 or above. Some women find that they only need one drop a day, though others need more.

Although SSKI is safe for the overwhelming majority of people, there are individuals who are very sensitive to it. On rare occasion, long-term use of larger quantities of SSKI may cause thyroid suppression. Thyroid blood tests always pick up on this if it occurs.

Start today to make sure you're cancer-free tomorrow

There's no reason to just wait and hope that you're not that one woman in eight who gets breast cancer. The 2/16 ratio and the EQ provide two easy ways to estimate your own risk of breast, uterine, and other estrogen-related cancers.

For more information on these tests, contact a physician-member of The American College for Advancement in Medicine (ACAM) at (800)532-3688 or www.acam.org or the International College for Integrative Medicine at (419)358-0273 or www.icimed.com.

If your risk factor calculations are unfavorable, or even if they're just OK, there are things you can do yourself—starting today—to lessen your breast cancer risk. Cancer is a frightening thing, but don't let that fear paralyze you: Do something about it—and pass the information along to your daughters and granddaughters, too!

Chapter 4:

Little-known cures for those all-too-common PMS problems

Despite the fact that premenstrual syndrome is one of the most common problems experienced by women of childbearing age, we still have little idea of what causes it or how we can “fix” it. In fact, there are some “experts” (usually male) who argue that it doesn't really exist—obviously very brave people.

In the past, sufferers usually focused on symptom control and over-the-counter treatments to get through the roughest times: Diuretics to help with bloating, aspirin for muscle aches, exercise for mood, etc.

But recently a new strain of super-PMS has been “uncovered.” It's called PMDD (premenstrual dysphoric disorder), and the symptoms are so strong that the traditional band-aids don't help. PMDD is basically the same as regular PMS, but the symptoms—breast tenderness, headaches, joint and muscle aches, bloating and weight gain, difficulty concentrating, and mood swings—are so intense that they markedly interfere with normal functioning in day-to-day life.

Surprise! Hand in hand with this “new” disease is a “new” treatment that popped up in TV advertisements. It's called Sarafem,[™] and its ac-

tive ingredient is fluoxetine hydrochloride. This product is prescription only, and the capsules are more attractive (pink and lavender)—but guess what...its original market name is the well-known SSRI (selective serotonin reuptake inhibitor)—Prozac!

But you don't have to rely on the prescription antidepressants that can have negative side effects or the only mildly effective over-the-counter PMS concoctions. There are a few natural therapies that can help. Here's what we know.

Say goodbye to mood swings, tension, and irritability with an old favorite—ultra-safe L-tryptophan

According to the TV commercials, Sarafem is meant to help women who suffer from the form of severe PMS, called premenstrual dysphoric disorder (PMDD). But with side effects ranging from weakness and nausea to hallucinations and has even been reported to cause violence, Sarafem is one of the last medicines I'd ever want to give a young woman. Luckily, there's a much safer treatment option available for women who suffer from this severe type of PMS: L-tryptophan.

L-tryptophan really is safe, although this essential amino acid was banned in the early 1990s. The FDA forbid over-the-counter sales of L-tryptophan but at the same time required it to be included in amino acid formulas for intravenous use and in infant formulas! The ban obviously wasn't logical 10 years ago, and it's still not.

As a quick recap, I should point out that the "problem" with L-tryptophan (which was indeed serious—38 people died) that prompted the FDA to make it unavailable was actually due to contamination. The contaminant was produced due to a mistake in genetic engineering. I won't deny that contaminated L-tryptophan was a problem; by contrast, uncontaminated L-tryptophan itself is not only safe in commonly used quantities, but it's also essential to life. So please don't worry about L-tryptophan's safety.

In one important study, 71 women with PMDD took either L-tryptophan or a placebo from the time of ovulation to the third day of

menstruation for three consecutive months. Compared with a placebo, L-tryptophan resulted in significant improvement in mood swings, tension, and irritability. The researchers suggested that increasing the brain's production of serotonin (one of the effects of L-tryptophan) is responsible for this beneficial effect.

This research used 2 grams of L-tryptophan three times daily after meals. In my experience, that much L-tryptophan is hardly ever required to relieve PMDD if it's taken properly and is accompanied by additional nutrients that help relieve other aspects of PMS, including water retention, bloating, and headaches.

Keep in mind that since L-tryptophan competes with other amino acids for absorption, it's absorbed best if taken before or after meals (by at least an hour or more). But unlike most other amino acids, L-tryptophan penetrates into the brain (where it's the precursor for serotonin production); it therefore works best when it's accompanied by a small amount of carbohydrates, such as 2 or 3 ounces of orange juice.

For a combination that eliminates a large majority of PMS symptoms for most woman, take 1,500 milligrams of L-tryptophan (twice daily between meals with a small amount of juice), along with 50 to 100 milligrams of vitamin B6, 100 to 150 milligrams of magnesium, and for some, 2 grams of gamma-linoleic acid (GLA) daily.

Even though it's a nutrient essential to life, not a patent medication, L-tryptophan is still not available in natural food stores as it was for over 20 years prior to the genetically engineered contamination episode. However, L-tryptophan is available by prescription through compounding pharmacies. For a prescription, check with a physician skilled and knowledgeable in nutritional medicine. If you need a referral to such a physician in your area, contact the American College for Advancement in Medicine, (800)532-3688 or www.acam.org; the American Academy of Environmental Medicine, (316)684-5500, www.aeonline.org; or the American Association of Naturopathic Physicians, (866)538-2267, www.naturopathic.org.

The vitamin cure for heavy menstrual bleeding most doctors don't even know about

If you're a woman who has abnormally heavy menstrual bleeding, you're probably all too familiar with the inconvenience caused by your period each month. The clotting and cramping that often accompany this heavy bleeding may be painful; there's a risk for anemia from the high blood loss; and, you may just feel weak, tired, or sick for days at a time every month.

Unfortunately, there aren't many effective or appealing treatments for this problem. And, in some cases, the mainstream recommendations just don't work. One option is to go on the birth control pill, which means pumping your body full of synthetic hormones. Another is to undergo dilation and curettage, often referred to as a "D&C." This procedure involves scraping the uterine lining: Not at all pleasant, and it doesn't even work in the majority of cases. A third option—if you can call it that—is to undergo a hysterectomy.

Obviously, most women would prefer to try a natural line of treatment before resorting to any of those mentioned above. But unfortunately, most doctors just don't know that there is one.

Many physicians have used vitamin A with tremendous success to treat heavy menstrual bleeding. I recommend 50,000 units of vitamin A (not beta-carotene) daily, and have found that the majority of women return to a normal bleeding pattern in just one or two months.

Although the original research found that 50,000 units of vitamin A daily was effective when given for 15 days, I recommend at least 30 days at this amount. Then, you can reduce the amount to 15,000 to 25,000 units daily to prevent recurrence.

Of course, you should first be checked by a gynecologist or family doctor for fibroids and/or other structural or functional abnormality before trying any line of treatment.

PART VIII
Men's Health

Chapter 1:

Drop the finasteride! The benefits—and risks—of natural prostate treatments

Prostate enlargement (benign prostatic hypertrophy or BPH) sometimes seems an inevitable hazard of male aging.

A small minority of men notice symptoms of hesitancy (taking longer than usual to urinate), one or more trips to the bathroom at night, and diminished force of the urine stream as early as in their 40s. Many more develop these symptoms in their 50s, and the numbers only increase with age. It's unusual to encounter a man in his 70s or 80s who's had no symptoms of prostate enlargement at all.

Zinc, essential fatty acids (including alpha linolenic acid), and saw palmetto are all helpful in reducing or eliminating symptoms of BPH. There's just no need at all to take a patent medication such as finasteride or its patent medication competitors!

But even natural substances can be overdone—and possibly increase your risk of prostate cancer—so it's important to understand the benefits and risks.

From ALA to zinc: Natural treatments that work

In 1941, the Lee Foundation for Nutritional Research published a small study of 19 men who had all the symptoms of BPH. Each participant in the study had a prostate examination confirming an enlarged but not cancerous prostate gland. Each man then took six capsules of an essential fatty acid complex (10 milligrams linoleic acid, 10 milligrams alpha-linolenic acid or ALA, and 10 milligrams arachadonic acid per capsule) daily.

After three days at six capsules daily, the quantity was reduced to four capsules daily for several weeks, then maintenance quantities of two capsules daily. All 19 men had reduction in prostate size as determined by physical examination, and the majority had all other symptoms of BPH reduced or eliminated as well.¹

In 1974, Dr. Bush, head of the division of urology at Cook County Hospital in Chicago, presented another study of BPH treatment in a “poster session” at the annual meeting of the American Medical Association. Curiously enough, he also worked with 19 men with BPH, this time confirmed not only with a physical examination, but also with X-rays and other means that were “high-tech” in 1974.

These 19 men took 50 milligrams of zinc (from zinc sulfate) three times daily for two months, then 50 to 100 milligrams daily for another two to three months. Fourteen of 19 had shrinkage of the prostate gland as shown by the same examination techniques.²

In his presentation, Dr. Bush also observed that 105 of 150 men with “chronic prostatitis” not caused by bacterial infection were cured with this same zinc treatment. In 1976, another group also reported that zinc treatment reduced the size of enlarged prostate glands.³

I recommend taking one tablespoonful of flaxseed oil daily (along with 400 IU vitamin E), and 50 milligrams zinc (from sulfate) twice daily (later modified to 30 milligrams zinc from picolinate two to three

times daily). After three to four months, symptoms are almost always improved and the prostate is usually smaller.

I then recommend reducing the zinc (from zinc picolinate) to 60 milligrams every other day or 30 milligrams of zinc (from picolinate) daily, along with one to two teaspoons of flaxseed oil daily (and vitamin E). Men who eat enough unroasted sunflower seeds or pumpkin seeds (for essential fatty acids and zinc) and oysters (mostly for the zinc) can sometimes cut the supplements back further or even eliminate them for weeks to months at a time.

Saw palmetto is not my first choice

As natural medicine became ever more popular in the last quarter of the 20th century, more and more herbal products were introduced—among them a “breakthrough” herbal treatment for BPH: Saw palmetto. Saw palmetto quickly became available in nearly all natural food stores, and almost immediately became a bestseller, as it is quite effective for reducing—sometimes dramatically—the symptoms of BPH.

But even though saw palmetto was usually effective for the symptoms of BPH, I continued to recommend using zinc and essential fatty acids first for at least three to four months, followed by saw palmetto only if zinc and essential fatty acids together weren't effective in that time.

My reasoning, admittedly theoretical, is that zinc and essential fatty acids are essential to life and health, and saw palmetto isn't. Most Americans live entire lifetimes without even one microgram of saw palmetto, but no one can live long without zinc or essential fatty acids! So even though saw palmetto isn't thought to be harmful (more about this below), it's best to use zinc and essential fatty acids for BPH first.

If a man's prostate function improves with more zinc, then his retina and “hearing apparatus” (both of which normally contain more zinc than the prostate) will very likely benefit from some of that supplemental zinc, too—even if those areas aren't yet symptomatic. Similarly, if a man's prostate function is improved with additional essential fatty acids, then likely

his cardiovascular health will be improved as well—in just the last few years many research studies have shown that essential fatty acids significantly reduce risk of atherosclerotic vascular disease.

Again, if after three to four months zinc and essential fatty acids aren't effective, saw palmetto can always be tried next.

Everything in moderation

But in the last few years, evidence has been accumulating that —like many other individual nutrients—both zinc and essential fatty acids can be “overdone” and that excessive quantities may increase a man's risk of prostate cancer. The same risk hasn't been reported for excess quantities of saw palmetto yet. However, the effects of saw palmetto in laboratory tests of steroid metabolism appear to also make increased cancer risk a possible effect of excessive saw palmetto use.

That's because zinc, essential fatty acids, and saw palmetto all share a common “mechanism of action” with finasteride, a patented “space alien” molecule frequently prescribed for symptoms of BPH. This mechanism of action is inhibition of a testosterone-metabolizing enzyme called “5-alpha-reductase.” As might be expected, the patent medication is a much more potent inhibitor of this enzyme than the natural substances.

The 5-alpha reductase enzyme metabolizes testosterone into di-hydrotestosterone (DHT), which is a much more potent testosterone, but also has been termed a “bad testosterone” since it causes more cellular disorganization. Cellular disorganization increases the risk of cancer.

For many men, finasteride reduces the symptoms of BPH. The well-known (to many physicians, at least) Prostate Cancer Prevention Trial⁴ demonstrated that finasteride also lowers prostate cancer risk—but at the price of spurring more aggressive cancer when it does occur. In this trial, 18,882 men with normal prostate exams and PSA below 3.0 (normal) took either finasteride or placebo for seven years.

At the end of that time, 18.4 percent of the men in the finasteride group and 24.4 percent in the placebo group had developed prostate

cancer; the reduction of cancer occurrence (24.8 percent) was statistically significant. But 37 percent of the cancers occurring in the finasteride group were more aggressive types (translation: more likely to kill you) versus 22.3 percent more aggressive cancers in the placebo group.

This shows us that inhibiting 5-alpha reductase may not be entirely a good idea. Since alpha linolenic acid, zinc, and saw palmetto all inhibit 5-alpha reductase, could they also have this downside? This appears to be the case if the quantities used are too high.

Evidence for increased cancer risk

Evidence has been accumulating for over a decade that higher levels of a major essential fatty acid found in flaxseed oil, alpha linolenic acid—much smaller quantities of ALA are found in canola and soy oils—may be associated with higher prostate cancer risk.

A large case-control study from Uruguay found that men in the highest quartile of ALA intake had almost four times the risk of prostate cancer compared with those in the bottom quartile of intake.⁵ In a recent dietary case-control study,⁶ 217 Spanish men with prostate cancer were matched with 217 hospitalized men (with non-cancer diagnoses) and 217 healthy “controls.”

The prostate cancer patients were three times more likely to be in the upper quartile of ALA intake. (Other findings from this study: Animal fat intake was positively correlated with increased prostate cancer risk, while vitamin C intake was correlated with decreased prostate cancer risk).

Although the preponderance of the evidence (so far) indicates caution about higher quantities of ALA-containing oils being associated with higher prostate cancer risk, a smaller amount of evidence is contradictory. One review article noted that five research studies were positive (including the two noted above), but one was negative. It also pointed out that one study using actual prostate cancer cells showed that ALA promoted their growth,⁷ while another showed growth suppression.⁸

Zinc also reduces 5-alpha reductase activity, and excess zinc may also be associated with increased cancer risk. A research group at the National Institutes of Health⁹ reported data from a study of 46,974 U.S. men participating in the Health Professionals Follow-Up Study. They wrote: “Supplemental zinc intake at doses of up to 100 mg/day was not associated with prostate cancer risk.” By contrast, men who took more than 100 mg/day of supplemental zinc had an increased risk of prostate cancer.

So far, there aren't any research reports that implicate excessively high doses of saw palmetto as possibly increasing risk of prostate cancer. But in doing very careful laboratory follow-up of men taking both bio-identical hormones and saw palmetto, physicians have observed too many instances of definite over-inhibition of the 5-alpha reductase enzyme by saw palmetto supplementation. In these cases, the men involved have reduced their saw palmetto intake and the laboratory signs of 5-alpha reductase over-inhibition have gone away.

So what do I do?

If you're a man starting to have symptoms of BPH or already taking zinc, and/or alpha linolenic acid-containing flaxseed oil, and/or saw palmetto to control BPH, the information above does not mean you should stop taking these substances.

Correct quantities are good for you, but correct quantities can vary from person to person. For example: there was one man whose metabolism was so sensitive to saw palmetto (as shown on his lab test by severe 5-alpha reductase inhibition) that he had to quit it entirely before the test result normalized. But zinc supplementation didn't have the same effect on his lab test, and helped his BPH symptoms, so he used that instead.

Very few men are that sensitive to the effects of saw palmetto, but laboratory testing has led me to recommend reduction, although not elimination, of saw palmetto supplementation for a significant minority of men.

But over-inhibition of 5-alpha reductase doesn't have symptoms, and waiting to see whether you've possibly increased your risk of a more ag-

gressive type of prostate cancer isn't a good idea, either. Check with a physician who knows how to monitor testosterone metabolism with appropriate laboratory testing! Whether 5-alpha reductase is over-inhibited isn't the only question that needs to be answered; you also need to know whether the enzyme "aromatase" is turning too much of your testosterone (or DHEA) into excessive (for a man) estrogen, which may be equally if not more hazardous to your prostate.

Find a physician who uses the "24-hour urinary steroid analysis" to monitor steroid hormone metabolism. At present, neither saliva testing nor blood testing has the "breadth" (total number of steroid metabolites) to follow these and other aspects of testosterone metabolism. The test follows estrogen metabolism much more completely, too, and allows your physician to keep both testosterone and estrogens as safe for you as is presently possible.

Chapter 2:

The male side of the Great Hormone Debate: Is testosterone dangerous?

Eventually, nearly every man reaches a point where his testosterone no longer drives his sex life as well as he might like. And testosterone also shares a large part of the responsibility for a variety of other symptoms and diseases thought to be part of normal aging, including heart disease, prostate disease, muscle and bone weakness, depression, high cholesterol, abdominal weight gain, and loss of mental acuity. But you don't have to just sit back and let these things happen. You can significantly reduce your risks of these and many other "normal" symptoms of aging by replacing the testosterone your body is missing.

Unfortunately, most mainstream doctors actually warn against testosterone replacement therapy, since this hormone has been blamed for all sorts of health problems, including prostate cancer.

But there's one question that always pops into my head when I hear warnings against testosterone: "If testosterone is bad for the prostate, why don't young men have more prostate disease?"

Older men get enlarged prostate glands (BPH); younger men don't. Older men get prostate cancer; younger men don't. Yet younger men

have the highest testosterone levels. So why do the conventional medical community, patent medicine companies, and government “authorities” continue to warn us of the hazards of testosterone?

Don't let the artificial scare you away from the real deal

The warnings are due, in part, to a 1940s and 1950s disaster with a synthetic, patented form of testosterone called “methyltestosterone.” This molecule was invented for the singular purpose of being patented and making a profit. And even though it had never been found on earth before it was invented, it was sold to literally hundreds of thousands of unsuspecting men as “testosterone.” After an initial wave of favorable publicity, researchers observed that methyltestosterone caused (among other things) cancer and heart disease. Sales dropped to virtually nil for years, and research on real testosterone was neglected for more than 20 years afterward, since “everyone knew” that “testosterone” was dangerous.

Sounds familiar, doesn't it? Just change the names to “estrogen” and “horse estrogen (equilin),” “progesterone” and “medroxyprogesterones”... and the scientific community is repeating the same error all over again, only this time for women. But back to testosterone...

The fact is, testosterone—real, natural testosterone—is very safe, and can help you tackle all sorts of health problems associated with aging.

Natural testosterone replacement steps back into the spotlight after 60 years

In 1935, Leopold Ruzicka discovered that although the testes produce testosterone, they really contain very little of it. And, instead of extracting minuscule amounts from testicular tissue, he discovered that it is possible to produce testosterone from a much more abundant substance—cholesterol. In fact, that's basically how the body does it. The testosterone Ruzicka produced from cholesterol in his experiment had an identical molecular structure to the body's natural testosterone. Even though it was synthesized in a laboratory, the natural testosterone mol-

ecules couldn't be distinguished from human hormones, and the body treated them as such.

So natural testosterone replacement has been around and available for over 60 years, but pharmaceutical companies thought they could “improve” on nature (or at least find a way to profit from it) and wound up making such a mess of it that most men are still too afraid to use either type.

The good news is that research on real testosterone has finally revived. A recent report drives home the point: Testosterone is good for the prostate!

90 percent of men find relief in just six months

Researchers studied 207 men, ages 40 to 83. The first group of 92 men had low testosterone levels. They were treated with 80 milligrams of testosterone daily. The second group of 115 men had very low testosterone levels. This group was treated with 120 milligrams of testosterone daily.

Measurements were done at one, three, and six months. These included prostate volume (size), PSA (prostate specific antigen), lower urinary tract symptoms, and several hormones, including testosterone itself, di-hydrotestosterone (“DHT,” a supposedly “bad” metabolite of testosterone), estradiol, and FSH and LH (LH stimulates testosterone in men; FSH stimulates estrogens in women).

Before treatment, LH was elevated in all the men. LH should go back down in men given testosterone, and it did in all men in the first group, and all but 20 men in the second group. (The decline in LH indicates successful testosterone treatment.)

All the men whose LH declined with testosterone treatment had marked decreases in the size of their prostate glands. They also had marked decreases in PSA levels and lower urinary tract symptoms, and striking suppression of not only LH but also DHT, estradiol, and FSH.

Although this is (so far) just one study, it's certainly convincing: Every one of 187 men whose tests indicated effective testosterone treatment

had improvement in all parameters measured, including a decrease in prostate size! Given “younger” levels of testosterone, it appears the prostate gland gets “younger” too.

The more testosterone, the sharper your brain

Researchers also continue to demonstrate that testosterone is beneficial for male mental function. Here are a few excerpts from some of the recent studies supporting this conclusion:

- “short-term testosterone administration enhances cognitive function in healthy older men”
- “decreased serum testosterone levels...adversely affect verbal memory in normal young men. These results suggest that short-term changes in sex steroid levels have effects on cognitive function in healthy young men”
- “beneficial changes in cognition can occur in...men using testosterone replacement and di-hydrotestosterone [DHT] treatment...”
- “Positive associations between testosterone levels and cognition are consistent with an effect of androgen treatment...”

There’s much more research showing that adequate bio-identical testosterone is important for male cognitive function. Hopefully the “experts” will get around to reading it someday. But in the meantime, let’s move on and go over testosterone’s benefits for your heart.

70 years of heart-health benefits

Not one piece of research since the 1930s has shown bio-identical testosterone to worsen any parameter of cardiovascular function—quite the opposite, actually.

All the way back in the 1940s, testosterone was found to be an effective treatment in 91 of 100 cases of angina. Then in the 1970s, research showed it to be effective in improving abnormal electrocardiograms. And in the 1990s, a Chinese study showed improvement in both angina and electrocardiograms in older men using testosterone.

Research continues to confirm that testosterone is good for men's hearts. Two examples taken from very recent studies:

- “Men with proven coronary heart disease had significantly lower levels of total testosterone, free testosterone, free androgen index and estradiol...For the first time in clinical settings it has been demonstrated that low levels of free-testosterone was characteristic for patients with low ejection fraction.” Ejection fraction measures the amount of blood pumped from one of the heart's chambers, so low testosterone is associated with less blood being pumped.)
- “Testosterone reduced QT dispersion in [men with] heart failure.” Higher QT dispersion, a measurement taken from an electrocardiogram, indicates higher risk of death from cardiac arrhythmia. That means in the above study, testosterone reduced the risk of death from cardiac arrhythmia.

The reason you still need those regular check-ups

If your testosterone levels are low, and you decide to take testosterone (that's real, bio-identical testosterone, not a patentable version) make sure to have your PSA level checked before you start, and then check it again in three to four months. If it rises more than a little in that time, you may have uncovered a pre-existing prostate cancer, so check with your doctor or a urologist right away, and stop using testosterone until you've fully investigated the situation.

Remember: Testosterone doesn't cause prostate cancer (if it did, young men would have the highest rates), but it does increase the growth rate of a cancer that's already there.

But don't settle for “plain” PSA measurement; there are more advanced and more accurate measurements. At present I prefer the “cPSA” (complexed PSA) test; your doctor may prefer another.

Even bio-identical hormones can be dangerous in excess. So no matter how great you might feel, don't take more than your tests show you need!

Natural testosterone: Easier to use than ever

The current trend in testosterone replacement therapy is the application of natural testosterone to the skin (transdermal administration). The first of these methods is the scrotal patch (sold under the name Testoderm®) made from a vegetable source. Scrotal patches tend to be rather inconvenient, though, so there have been some other innovations in testosterone replacement.

The “almost anywhere” patch works in much the same fashion as the scrotal patch but can be applied anywhere except the scrotum or bony areas. This type of patch is sold under the names Androderm® and Testoderm TTS®. The use of Androderm resulted in significant improvements in fatigue, mood, and sexual function.

Two more options in natural testosterone replacement are creams and gels, which are usually much cheaper than the patches.

Finally, an oral form of natural testosterone can be formulated by a compounding pharmacist and can essentially function as the most convenient and inexpensive natural testosterone delivery system.

The quickest, most efficient way to find a knowledgeable, open-minded doctor who will consider prescribing natural testosterone is to locate one who is a member of the American College for Advancement in Medicine (ACAM). Members of this professional organization are skilled and knowledgeable in the prescription and use of natural hormones, as well as various nutritional, herbal, and botanical products. For a list of ACAM doctors near you, contact ACAM by calling (800)532-3688 or via the Internet at www.acam.org.

Once you have a prescription for natural testosterone, you'll need to find a compounding pharmacist. Compounding pharmacies are located all over the country, so you shouldn't have too much trouble finding one. For a list of compounding pharmacies near you, contact the International Academy of Compounding Pharmacists (IACP) by calling (800)927-4227, (281)933-8400, faxing (281)495-0602, or via the Internet at www.iacprx.org.

Chapter 3:

Forget the Proscar propaganda— shrink an enlarged prostate the natural way

Nothing focuses on the differences between the pharmaceutical and natural approaches to health care more sharply than the treatment of an enlarged prostate, or benign prostatic hyperplasia (BPH). Take finasteride (the generic name for Proscar™) for example. Designed by a computer to fit a particular chemical receptor site, finasteride is a chemical laser beam aimed at the metabolic juncture where testosterone turns into DHT—the enzyme 5 α -reductase. By inhibiting the action of 5 α -reductase, finasteride drastically reduces the amount of DHT formed in the prostate.

This strategy has had its share of clinical success, not to mention commercial success. But it's also helping to propagate the myth that excess DHT is the cause of BPH. If you believe this myth, of course, then Proscar™ is just what the doctor ordered. But the truth is, BPH is a lot more complicated than just “too much DHT binding too many androgen receptors for too long.” Effective treatment requires a strategy that approaches the problem from several different angles.

The best alternative to Proscar

You've probably heard a lot about saw palmetto over the past few years. It has a well-deserved reputation for reducing and, in many cases, eliminating the symptoms of BPH. In fact, the results of numerous trials on saw palmetto and BPH are so indisputably good that, these days, you can find this supplement in most supermarkets.

Even better, there doesn't appear to be any side effects from using this herbal preparation.

But when it comes to prevention, I'm willing to bet that no man ever got BPH because of a deficiency of saw palmetto or stinging nettle. It seems that men who try diet and supplemental essential nutrients first almost always experience a big decrease and sometimes even a complete elimination of their BPH symptoms. BPH may actually be a symptom of zinc and/or essential fatty acid (EFA) insufficiency for some men.

Both zinc and essential fatty acids are essential nutrients, saw palmetto isn't. And, it's more than likely that if one body tissue is deficient in an essential nutrient, there are other tissues, glands, and organs that are also deficient (even if they're not apparent). So if the prostate is "hurting" for lack of zinc and essential fatty acids, you need to make sure to get these nutrients first. These supplements will help the rest of your body, too, wherever they're needed. By contrast, taking saw palmetto will help the prostate, but it won't help the possibly hidden need for essential nutrients elsewhere in the body.

Zinc and essential fatty acids are the most important parts of a supplement program designed to reverse BPH and its symptoms. And sometimes these two essential nutrients (taken together as supplements) are all that many men with BPH need.

Two of the best and most easily accessible dietary sources of zinc and essential fatty acids are unroasted sunflower seeds and pumpkin seeds. Nearly all other unroasted seeds and nuts are also good sources of these two nutrients.

While food sources of zinc and essential fatty acids may be enough to prevent BPH in the first place, they're usually not sufficient to reverse it. Once BPH and its symptoms have occurred, I usually recommend 30 milligrams of zinc (picolinate or citrate) three times daily to start, tapering down slowly as symptoms recede, along with 2 milligrams of copper. I also recommend taking 1 tablespoon of organically grown, carefully processed "high-lignan" flax oil twice daily along with 400 IU of vitamin E.

One note of caution: There has been some recent research linking alpha-linolenic acid (ALA), an essential fatty acid found in flaxseed and flaxseed oil, with increased risk of prostate cancer. According to these studies, too much ALA can suppress 5-alpha-reductase, so if you decide to try this approach for managing your BPH symptoms, you might want to have your 5-alpha reductase enzyme activity measured. This is easily done from a 24-hour urinary steroid test.

A few more botanical tricks up Nature's BPH-relieving sleeve

Of course, saw palmetto shouldn't be ignored completely. It can make a difference if zinc and essential fatty acids don't completely eliminate your symptoms.

Since it's a complex, naturally occurring substance, you might expect saw palmetto to have a few more therapeutic tricks up its sleeve than a one-trick pony like finasteride, and you'd be right. Exactly how saw palmetto works is not certain. What is certain is that unlike finasteride, it appears to have a variety of different actions, any or all of which may be beneficial for prostate health.

The vast majority of trials of saw palmetto extract in men with BPH have shown it to be an effective and exceptionally safe therapeutic option.

Saw palmetto extract is widely available in health food stores and by mail order from nutritional supplement companies. Keep in mind, though, that not all saw palmetto extracts are alike. It's important to make certain that the product label indicates that the saw palmetto extract is 85 to 95 percent fatty acids and sterol. Anything less may not

have the potency to do any good. The dose most often found to be safe and effective is 160 milligrams twice daily. No serious side effects of saw palmetto extract, taken in reasonable doses, have ever been reported.

Another helpful botanical in fighting an enlarged prostate is stinging nettle (*urtica dioica*). Like saw palmetto extract, stinging nettle extract is a complex natural substance, and it probably helps in several effective ways to combat BPH. Studies have shown that the extract binds the protein called sex-hormone-binding globulin (SHBG). SHBG permanently binds testosterone (and other “sex hormones”), and its levels increase with age as testosterone levels decline. To the degree that they bind to SHBG, the components of stinging nettle extract “crowd out” testosterone, which may raise the levels of free testosterone circulating in the body. Elevated free testosterone may have a variety of beneficial effects all over the body. Specifically in terms of the prostate, though, this added free testosterone may help restore the normal estradiol/testosterone ratio, removing an important stimulus to prostate growth.

Stinging nettle extract is also widely available from health food stores and nutritional supplement suppliers. The dose of stinging nettle extract used most often in clinical studies is about 300 milligrams per day. Stinging nettle makes a great soup and a bowl of soup a day should readily achieve this dosage level. (The active components of nettle appear to be water-soluble). No serious adverse effects have been associated with reasonable doses.

In addition to saw palmetto and stinging nettle, other botanical products that appear to have beneficial effects on the aging prostate are *Pygeum africanum* bark and a flower pollen extract, Graminaceae, usually called by its brand name, Cernilton™. Since each of these substances may have slightly different mechanisms of action, it is common to combine two or more of them to achieve an additive effect.

The best solution might mean more than one “right” answer

So, why not use all of these treatment options? This may actually be the best solution. But whatever you do, if you have an enlarged prostate

along with its symptoms, don't just reach for the saw palmetto or stinging nettle without picking up the zinc and essential fatty acids too. And make sure to talk to a doctor skilled in natural medicine, who can work with you to develop the best regimen for you.

(Of course, any prostate health supplement program should also include selenium, vitamins E and D, and lycopene from tomato products.

There are several widely available prostate supplements that contain all the useful ingredients mentioned above. Check your local natural food or vitamin store for one that best suits your needs. Though it's perfectly fine to take the supplements individually, one of the combinations could save you time and money—not to mention space in your medicine cabinet!

BPH medications aren't helping? Maybe you're treating the wrong problem

Some men may suffer what they think are typical BPH symptoms (frequency, urinary urgency, nocturia, decreased size and force of stream, incomplete bladder emptying, and dribbling) and get treated (unsuccessfully) for BPH, but the symptoms may not be caused by an enlarged prostate at all.

Instead, they may be caused by a condition known as prostatism, which is related to the muscles in the prostate and the neck of the bladder. These smooth muscle cells are under the control of the sympathetic nervous system, and they tense up and contract just like all other muscles. The feelings that occur mimic the symptoms of BPH.

The key to relieving prostatism is adopting a treatment program that includes something that will relax your muscles. I usually recommend that people take a combination of muscle relaxing herbs.

Kava is a good muscle relaxant and may benefit prostatism. I've recommended it to patients who've had successful results. Other relaxation herbs include zizyphus spinosa, skullcap, and cramp bark, often used as a mixture.

You might need to try a few different approaches and dosage amounts before you find relief. For a list of physicians in your area who can help you determine the best program to fit your needs, contact the American Academy of Environmental Medicine at (316)684-5500 or www.aeonline.org.

Chapter 4:

Help for a lagging libido and potency problems—beyond Viagra

If Viagra were harmless and inexpensive, I wouldn't emphasize the use of natural therapies so heavily. But Viagra just poses too many risks to be considered the treatment of choice—especially when there are safe, natural options readily available for you to try.

L-arginine: Just say yes to NO

The first step is to make sure your testosterone levels are where they need to be (see Chapter 2 for more on that). From there, you need to increase your body's levels of nitric oxide (NO). It sounds somewhat ominous (like you're pumping yourself full of rocket fuel), but nitric oxide is actually the natural substance primarily responsible for causing and maintaining erections. It is possible to raise NO levels safely and naturally, enabling normal erections, by raising levels of the amino acid L-arginine, which can be rapidly converted to NO when needed in the body. The best food sources of L-arginine are grains, seeds, beans, nuts, and chocolate. You can also take L-arginine supplements, which are available in most natural food stores. L-arginine is generally considered to be very safe, even at the high doses that may be required for sexual

enhancement—3 to 6 grams per day or more. However, if you have cancer or any form of herpes, you should consult your physician before supplementing with L-arginine.

The pre-Viagra treatment of choice still holds its own

For the last 70 or 80 years, the most widely accepted treatment in the United States for sexual problems in both men and women wasn't a "magic" little pill from a patent medicine company. Instead, the mainstream relied on something completely uncharacteristic: An all-natural herb called yohimbine. In fact, until Viagra came along, yohimbine was the only medicine approved by the FDA for treating impotence.

But since yohimbine is completely natural, it couldn't be patented, which means no one could make enormous profits from selling it. So the big patent medicine companies didn't rest until they came up with a "solution" to sexual dysfunction that would boost their stock prices, even if it turned out to cause significant side effects—and so, Viagra was born. But yohimbine is still effective and is available over the counter in a variety of formulations and by prescription in 5 mg tablets.

Yohimbine probably works because it prevents noradrenaline from stimulating α_2 -adrenergic receptor sites, but it is not clear whether it exerts its effect in the brain or in the penile arteries. The doses of yohimbine most commonly reported to be safe and effective range from 18 mg to 100 mg per day, usually divided into three to four doses.

Although they're nowhere near as dangerous as those associated with Viagra, there are several side effects to watch out for when using yohimbine, particularly when recommended quantities are exceeded. The most common ones include anxiety, dizziness, headaches, and insomnia. Men who have high blood pressure are generally advised not to take yohimbine and use of the herb should be discontinued if you experience any increase in your blood pressure.

Better than testosterone

When testosterone levels decrease, sexual dysfunction isn't the only result. The chemical imbalance can lead to symptoms such as depression, fatigue, and muscle weakness. But researchers specializing in male health and sexual function have reported that a combination of two safe natural metabolites—propionyl-L-carnitine and acetyl-L-carnitine—are even more effective than testosterone in treating the depression, fatigue, and sexual dysfunction that can be associated with male aging.

It's not that testosterone doesn't work—in fact, the researchers reported that testosterone worked significantly better than placebo. It's just that the combination of “carnitines” worked even better.

None of the groups experienced significant side effects. And since they're safe and effective alternatives to testosterone, the carnitines offer the perfect solution for men who have had prostate cancer and can't take testosterone.

A safe alternative for men who have (or have had) prostate cancer

Poor sexual function is especially common in men who have had prostate cancer. For them, taking testosterone usually isn't an option because it could potentially stimulate cancer growth. (In fact, many are even given patent medications that reduce testosterone levels to zero or close to zero.) This is really one of the very few instances where Viagra can be helpful. Of course, Viagra does nothing for other symptoms of low or no testosterone, including fatigue, depression, and muscle weakness.

But researchers have found that taking the carnitine combination mentioned above along with Viagra (when needed) provides significantly more improvement in sexual function for men in this situation than taking Viagra alone.

And as a bonus, the combination of acetyl-L-carnitine and propionyl-L-carnitine can improve your mood, alleviate fatigue, and improve

muscle strength and function, making up for many of the problems that go with low or absent testosterone (and which Viagra doesn't help at all).

Better sexual function in a single—natural—formula

Although you can purchase the carnitines separately, propionyl-L-carnitine can be hard to find, so I recommend buying them in combination.

The best formula presently available is called PROPeL, which is a combination of acetyl-L-carnitine, propionyl-L-carnitine, and alpha-lipoic acid. (Alpha-lipoic acid has been found to improve erectile function in lab animals.) PROPeL is available in natural food stores and compounding pharmacies carrying Life Enhancement products and Life Enhancement, Inc., www.life-enhancement.com, (800)543-3873.

Three more herbal options for a satisfying sex life

There are numbers of studies proving the libido-enhancing benefits of herbs. Some of the most impressive results refer to muira puama, ginseng, and Ginkgo biloba. Muira puama's origin is as exotic as its name implies. It is derived from a shrub that grows in the Amazon region of Brazil. Studies suggest that supplements of this herb can increase libido and improve erectile dysfunction. And you don't have to travel halfway around the world to get it. You can find this product in many natural food stores.

Various studies have demonstrated that ginseng has increased serum testosterone levels and that it may improve blood flow to the penis. Ginkgo biloba is also a major aid in improving blood flow, especially through small arteries like the ones in the penis. Both are available in natural food stores, as well as many grocery stores.

This list might seem a little overwhelming, but I doubt you will need to take all of the items mentioned. Usually one or maybe a combination of two to three will do the job. Whichever combination you decide to try, the dosage amounts I generally recommend are as follows: 1,000 to 1,500

milligrams of muira puama daily; 100 milligrams of ginseng two to three times daily; and/or 40 milligrams of Ginkgo biloba three times a day.

In addition to these supplements, don't forget diet and exercise: Supplements can help, but they can't fix everything. We're all creatures of habit. Moving from old unhealthy patterns to new, more health-promoting ones isn't always easy and it won't happen overnight. But it definitely is worth the time and trouble: Making sure your body is healthy overall will lead to a more fulfilling sex life for you and your partner.

Chapter 5:

Become “King of the Bedroom” again!

Powerful three-part combo helps reverse erectile dysfunction

Nothing messes with a man's head more than an episode of erectile dysfunction (ED). It can make even the most confident guy start to question his manhood.

ED can be an upsetting—and embarrassing—topic for men and their doctors. Which is why many health experts (including me) believe that research estimating that 10 percent of the world's population suffers from ED is way too low.

The fact is, if you're a senior suffering from ED, you're not alone. When you're in your 20s you have around a 6.5 percent chance of experiencing ED. But as your age rises your risk for ED jumps right along with it. By the time you reach 75 (and beyond) that risk will have climbed up to 77.5 percent.

If there's one piece of good news about ED it's that you don't need some pricey and dangerous prescription drug to get your sex life rolling

again. In fact, I've found that three all-natural supplements may be all it takes to banish your bedroom woes for good.

But first let me explain what's *really* causing your ED.

From diabetes to drugs... ED has many triggers

Carrying around extra pounds, smoking and diabetes will all raise your risk of experiencing erection issues. In some studies, about half of the men with diabetes report having erectile dysfunction. Add that to that the number of men who have ED due to heart disease, and that accounts for 70 percent of all cases of the disorder.

But the most overlooked—and perhaps easily correctable—cause of erectile issues is prescription medications. ED is a stunningly common side effect of a whole slew of popular drugs.

Using the SIDER 2, an online side effects resource tool, I've counted no fewer than 84 prescription drugs that list erectile dysfunction as a side effect! Some of the main culprits are:

- **Antidepressants and antianxiety agents.** That's a huge problems because many doctors wrongly assume ED issues are psychological and prescribe these drugs.
- **Cardiac medications.** Calcium channel blockers, angiotensin II antagonists and non-selective beta blockers have all been linked to ED. All three classes are widely used to treat heart disease and hypertension, making it likely that much of the ED attributed to heart disease is actually a side effect of these drugs.
- **ED meds like Viagra and Cialis.** Believe it or not, these pills can actually worsen heart disease (and ED associated with heart disease), and can create a dangerous situation when combined with certain cardiac drugs.

Tackle erectile dysfunction with this triple threat

Fortunately, my research has led me to a natural three-part combo that safe... that's been proven to help restore erectile function... and could give you your bedroom mojo back in a hurry.

In a breakthrough study published in the *World Journal of Pharmacy and Pharmaceutical Sciences*, researchers found that a combination of L-arginine, Pycnogenol and Red ginseng may help successfully treat erectile dysfunction in most guys.

Better blood flow means stronger erections

L-arginine has many roles in the body, but its main uses are tied to its ability to form a substance called nitric oxide (NO). One of NO's primary functions is to relax blood vessels, including those located in the muscles of the corpus callosum, the channels of the penis that engorge with blood during sexual arousal.

When there's more NO present there's greater blood flow into the penis resulting in a stronger erection.

In fact, drugs like Viagra work by enhancing the effect of nitric oxide on the penis—but they still need L-arginine to produce the NO.

A number of studies, including some double-blind placebo controlled crossover studies, have confirmed L-arginine's unique ability to relieve ED. But combining it with Pycnogenol and Red ginseng seems to supercharge its effects.

Bark leads to dramatically increased blood flow

Pycnogenol, extracted from the bark of French pine trees, is a potent antioxidant and anti-inflammatory.

The extract is one case in which the whole really does exceed the sum of its parts. When studied separately the individual flavonoids and other organic acids found in Pycnogenol don't do very much for ED.

But together they form a powerful synergistic response. Pycnogenol dramatically increases overall blood flow, especially to the sexual organs.

Combo leads to over 90% improvement!

In one recent study, 40 men ages 25-45 with documented ED were given oral L-arginine for a month. The dose was relatively low, but the researchers did record a mild positive effect.

In the second month, 40 mg of Pycnogenol was added twice a day. The results were incredible... the men had a nearly 80 percent improvement.

But the researchers didn't stop there. They bumped up the dose of Pycnogenol in the third month and the improvement skyrocketed to over 90 percent!

Red ginseng, the third component of this “magic” ED formula, is no slouch either. Sometimes called Korean ginseng, Panax ginseng or Asian ginseng—and abbreviated KRG—Red ginseng is traditionally used in Chinese medicine to increase stamina, strength and virility in men.

And research reveals why.

KRG is very effective and exceptionally safe

Several studies have confirmed that KRG can be used to both treat, and prevent, male sexual dysfunction. In one double-blind, placebo-controlled study—published in the Asian Journal of Andrology—80 men with documented ED were given either 1,000 mg of KRG or a placebo. The results were uniformly positive.

In another study, published in the British Journal of Clinical Pharmacology, researchers poured over 28 studies on the use of KRG to treat ED. They identified seven which were of high enough quality to include in their meta-analysis.

The analysis revealed that not only did KRG perform significantly better than a placebo, but that the herbal remedy was also exceptionally safe to use.

Keeping it real with Korean ginseng

Korean Red ginseng (also known as Panax or Asian ginseng) shouldn't be confused with Siberian ginseng. The Siberian variety doesn't contain the ginsenosides that scientists believe are the active, and therapeutic, ingredients found in the other ginsengs. So be sure to read the label to make sure you're getting the right kind.

In fact, one great thing about this combination of L-Arginine, Pycnogenol and Red Ginseng for male sexual dysfunction is its safety record. And this is essential in an ED remedy, since the potential side effects of Viagra, Cialis and other common ED drugs aren't tolerated well by many men, and are dangerous to some.

Chapter 6:

Detect and reduce your prostate cancer risk with these simple steps

Of course, prostate cancer is the worst case scenario of prostate problems. But there's plenty you can do to prevent it from happening to you. You can determine your own risk of prostate cancer by testing yourself for two major risk factors. And if your test results aren't as favorable as you'd like, you can make a few simple diet changes and take certain supplements to lower your risk.

You need to know your 2/16 ratio too

The first step in reducing your prostate cancer risk is actually one of the same steps women can take for breast cancer: The 2/16 ratio test.

Recently, the journal *Cancer Causes and Control* published a study that directly examined the 2/16 ratio/ prostate cancer relationship. Researchers compared 113 men with prostate cancer to 317 men without prostate cancer. They reported that "...elevated 2-hydroxyestrone urine levels suggested a reduced prostate cancer risk...Conversely, elevated 16 alpha-hydroxyestrone levels were associated with an increased risk of prostate cancer...finally, the [2/16] ratio was associated with a reduced risk of prostate cancer."

This wasn't the first clue that the 2/16 ratio might be relevant for prostate cancer. A few years ago, another study showed some intriguing results. Researchers "followed" the diets of several thousand men for several years and found that men who ate at least three 1/2-cup servings of Brassica vegetables per week had a 41 percent reduction in prostate cancer risk. (Brassica vegetables include cabbage, cauliflower, broccoli, Brussels sprouts, bok choy, and others.) Since these vegetables raise the 2/16 ratio, it seemed reasonable to guess that at least some prostate cancer is related to the 2/16 ratio. Now the new study mentioned above confirms that guess.

The good news is, testing your own 2/16 ratio couldn't be easier. You don't even have to leave home to do it. Some changes in the actual testing equipment have made the process a lot easier. In fact, the testing kits can be mailed to you at home, where you'll collect a urine specimen in the container provided. When you've collected your sample, just mail it back to the lab.

Once you send your sample back to the lab, it generally takes about two to three weeks to get your results.

You definitely want more "good" (2) estrogen than "bad" (16) estrogen—substantially more if possible. So when you get your results, check the proportion of these two substances: Any ratio below 1.0 is unfavorable. Although there's no consensus on an ideal ratio number, I recommend 2.0 or greater if possible.

If your 2/16 ratio is less than 1.0, there's a good chance you'll be able to boost it just by eating a few specific foods. Start with Brassica (or mustard family) vegetables. These include cabbage, broccoli, cauliflower, bok choy, Brussels sprouts and many others. One thing to keep in mind: It is possible for Brassicas to cause suppressed thyroid function and even goiter if you eat a lot of them on a daily basis, so three to four servings a week is a good general range.

The natural cancer-fighting substances in these vegetables—isothiocyanates and indoles—help regulate and improve the 2/16 hydroxyestrogen ratio. In essence, a normal 2/16 ratio means less cancer risk.

You might find that you only need to incorporate one of these foods into your diet to raise your 2/16 ratio, but sometimes it takes a combination to make a big difference. In a lot of cases, just eating these foods will bring a low 2/16 ratio to 1.0 or above in just four to six weeks without any other specific supplementation. But if you find you're still not getting sufficient improvement, you can also take di-indolylmethane (DIM) supplements to boost it even further. DIM is actually a substance found in Brassica vegetables, but it's also available in most health food stores in supplement form. If you need some extra help, take 60 milligrams three times daily, and check your 2/16 ratio again in another four to six weeks.

Of course, it's also important to note that the 2/16 ratio is only one risk factor for prostate cancer, and while fixing this problem definitely lowers cancer risk, it doesn't eliminate it. And, unfortunately, once cancer has started, lowering the amount of "bad" estrogen is not likely to cure the cancer—but it is very likely to slow the progression.

Is your testosterone turning into estrogen?

By now you might be wondering why a test that predicts estrogen-related cancer risk also works for evaluating prostate cancer risk. Well, even the manliest men produce some estrogen. In fact, your body actually turns testosterone into estrogen. This process is called aromatization.

If everything is functioning properly, only a small fraction of your total testosterone becomes estrogen. Unfortunately, as men get older, there's a tendency for this process to speed up, turning more and more testosterone into estrogen. (This is called excess aromatization.) With excess aromatization, your body makes more estrogen than is good for your prostate—and it leaves too little testosterone behind. This raises your risk of both prostate enlargement and prostate cancer.

Excess aromatization is rare before age 40 to 45 (although it is possible). So if you're in that age bracket, you might want to have your aromatization checked—especially if there's a history of prostate cancer in your family.

The excess aromatization test involves collecting your urine for 24 hours. You only need to mail a small amount of the total sample to the laboratory for testing, and, if you want, the 2/16 test can be done on the same specimen. If you have trouble getting your doctor to order these test kits for you, contact a physician-member of The American College for Advancement in Medicine (800)532-3688; www.acam.org or The International College of Integrated Medicine (419)358-0273; www.icimed.com.

Boost your manhood with a flower?

When your test results arrive in the mail, look at your total estrogen and testosterone levels. If your total estrogen exceeds the “normal” range listed for men, or if your testosterone level is way too low (less than your estrogen level), that indicates excess aromatization.

If your lab results show excess aromatization, chrysin, a flavonoid derived from passionflower, can slow it down to normal again. Take 500 milligrams of chrysin three times daily. (The brand of chrysin containing a very small amount of diadzein, an isoflavone, appears to be more effective.) Then take another test in four to six weeks.

In the majority of cases, a follow-up test shows more testosterone and less estrogen, which means that the excess aromatization has been slowed. I definitely recommend trying chrysin first. But if it doesn't seem to work for you, the only alternative available right now is a patent medication called Arimidex. Carefully adjusted fractional doses of Arimidex will effectively slow aromatization. If you end up needing to take Arimidex, please work closely with a physician who can help you take the smallest dose necessary to do the job.

Make a different sort of “date”

There you have it: Two simple tests for figuring out your prostate cancer risk—and a few easy solutions to lower it if it's too high. In fact, since so many of these steps are similar to breast and cervical cancer risk testing, you and your wife may want to consider ordering your test kits at

the same time. Then, if you need to take steps to lower your risks, you'll be able to help each other through the process.

You should still continue to take as many other protective measures as you can—including taking 200 to 300 micrograms of selenium, 20 to 30 milligrams of lycopene, and 3 milligrams of boron per day: The more you protect yourself, the better!

PART IX

**Anti-Aging,
Memory, Hearing
and Vision**

Chapter 1:

The ICT Protocol for reversing and even curing Alzheimer's

If you or a loved one suffers from Alzheimer's, you're about to discover a simple, proven, 10-step program to reverse—and even cure—this frightening disease.

It's an all-natural, at-home treatment known as the ICT Protocol.

ICT (Individualized Combination Therapy) is an individualized program tailored to suit each person. No more generic treatments...or one-size-fits all remedies that fail for most people.

And the ICT Protocol is specifically designed to target multiple causative factors in Alzheimer's instead of only focusing on one potential factor. Patients undergo a number of clinical tests, including blood analysis, to determine what deficiencies and imbalances may exist.

So far, researchers have identified 36 deficiencies, sources of inflammation and hormonal imbalances that all play a part in decreasing memory function in Alzheimer's.

Dr. Dale Bredesen, the director at UCLA's Mary S. Easton Center for Alzheimer's Disease research, explains that every deficiency is like a piece

of a puzzle. And they all fit together to create the memory problems in Alzheimer's.

As he explains, some people may have a larger deficit in one area, such as a deficiency in vitamin D, but smaller deficits in another, such as estrogen. But when both of these deficiencies are combined together, they can cause the cognitive function to decline.

As the author of one of the most important studies into Alzheimer's disease, Dr. Bredesen has identified a program that covers all of the deficiencies...instead of simply treating one. This study was very small, only involving 10 patients, yet the results were extremely promising. You see, 9 out of the 10 participants showed a remarkable improvement in just 3-6 months. And the 1 participant who did not show an improvement was in the late-stages of Alzheimer's dementia, which shows it's best if you can catch Alzheimer's in its early stages.

How the Study Was Conducted

Each of the participants came in with a wide range of dementia symptoms, from mild memory loss to the more severe. They were aged between 55 and 75, and were put through a variety of tests. These included brain scans, blood tests, and other assessments. The results of the testing showed that the study participants had a range of between 10-24 deficiencies and imbalances, including vitamins, hormones, glucose metabolism and lifestyle factors that could be corrected.

Once the deficiencies and hormonal imbalances were identified, each participant was given a tailored program to follow. Some of these treatments included optimizing the health of the gut. Others included repairing Vitamin D deficiencies, fasting from meals to balance insulin levels in the blood and the use of DHA (omega-3 fatty acids) to improve any faulty connections in the brain.

Within a few months, 9 of the participants were showing an improvement. Some had returned to a normal level. Six of the participants in the study had previously had to either give up work or were struggling

to stay in employment due to their symptoms. Within 6 months of starting the program, all 6 had managed to either go back to work or showed a large improvement in their ability to do their job.

Although this study was small, it's a big step forward in the treatment of Alzheimer's disease. The ability to restore memory and cognitive function to the point where the patient can return to work and do their job well is a huge result.

Until now, people with Alzheimer's would continue to deteriorate until they needed full-time care. Instead of Alzheimer's disease being considered a death sentence, and the 3rd highest killer in the United States, this study shows promising results that could turn that situation around completely.

10 Simple Steps to Eliminate Alzheimer's: The ICT Protocol in Action

For the ICT protocol to be successful, the participant must follow each stage step by step, starting at the first step and working their way down. Completing the steps out of order won't create the same results, so it is very important to follow them carefully.

Here are the steps, how to take yourself through them, and the reasoning behind them:

Step 1: Reduce Inflammation and Stabilize Blood Sugar Levels

Alzheimer's disease is often referred to as Type 3 Diabetes, because of insulin resistance in the brain. A research team at Brown Medical School discovered that not only was insulin produced by the pancreas, it was also produced in the brain. This is why those with Type 2 Diabetes have a higher risk of developing Alzheimer's disease. High levels of glucose in the blood are accepted as one of the main causes of Alzheimer's disease.

Treatment: Diet

Many medical problems can be treated by following certain diets, and this is also true in Alzheimer's disease. A diet that is low in grains,

simple carbohydrates, sugars and on the low glycemic index are recommended for this step. Suitable diets include the Paleo diet, Bulletproof and low-carbohydrate Mediterranean diet. Instead of processed foods, you should consume plenty of fresh foods, like vegetables, and good quality meats and fish.

Also, you shouldn't eat later than 3 hours before bed. A fasting period of 12 hours between dinner and breakfast should be followed each day. Fasting has a superb effect on the production of insulin and the body's sensitivity to it—and can make all the difference when it comes to preventing Alzheimer's.

Treatment: Supplements

Recommended supplements for this step are DHA (docosahexaenoic acid—an omega-3 fatty acid), EPA (eicosapentaenoic acid—also an omega-3 fatty acid), and curcumin. According to research studies, both DHA and EPA can reduce the risk of a decline in cognitive function, possibly due to the effect of omega-3's on the blood circulation. Curcumin is naturally found in turmeric, and research has shown that it helps to reduce the amyloid plaques in the brain, therefore enabling better function.

Treatment: Other

The final recommendation for this step is to improve oral care. It is essential to look after your teeth, gums and mouth, as swelling and infection in the gum can cause an inflammatory response through the body. Regular dental check-ups and the use of electric toothbrushes and dental floss are highly recommended.

Step 2: Optimize Hormones

As we age, different hormones that are produced by the body can be affected, leading to imbalances. When there is an imbalance of a hormone, it can greatly affect how different organs function...and this includes the brain. The most common hormonal problems are related to

the thyroid and decreasing estrogen production. Hormone replacement therapy can be used to balance out the levels of each hormone, optimizing their performance in the body—but isn't necessary to restore cognitive function.

Treatment: Test Your Hormone Levels

A full hormone assessment needs to be carried out to determine if there are any imbalances that may be present. This includes thyroid hormones and the steroid hormones such as cortisol, estrogen and testosterone. Simple blood tests ordered by your doctor can identify the levels of certain hormones in your blood. You can't test your own hormones at home; it needs to be done by a laboratory. You should ask your doctor about conducting a hormone test during your next check-up.

If tests show you have a hormonal imbalance, hormone replacement treatments should be introduced by your doctor to correct any hormonal imbalances.

Treatment: Stress Reduction

Finding methods to help you relax and remove stress is important at this step. Stress can have a major impact on your body, due to anxiety symptoms and tightening of your muscles. Uncontrolled stress can lead to a number of dangerous medical conditions including heart disease... and can even lead to cognitive decline. Daily meditation, yoga, or using music to relax are all recommended treatments for stress. You don't have to go to special classes to learn how to meditate; there are numerous books and instructional videos you can learn from. Yoga is easier if it is learnt in a class, but once you have the basics, you can do this at home.

Treatment: Supplements

The recommended supplements at this step include vitamin D3 and Ashwagandha. Research is ongoing at the moment, but what is known so far is that those with a deficiency in vitamin D are twice as likely to develop Alzheimer's disease. Supplementing vitamin D3 can therefore help to reduce

the risk. Ashwagandha is known to prevent beta-amyloid plaques from forming in the brain, and therefore reduce the symptoms of Alzheimer's.

Step 3: Optimize Antioxidants

Antioxidants are important because research has shown that when fats oxidize in the brain there is a strong relationship with Alzheimer's disease. The results of a study published in the *Journal of Alzheimer's Disease* showed that people with a deficiency in antioxidants like beta-carotene and vitamin C had a higher rate of Alzheimer's disease. Therefore, they came to the conclusion that supplementing the antioxidants could prevent or slow down the development of Alzheimer's. And I recommend adding foods high in beta-carotene and vitamin C to your diet as soon as you can.

Treatment: Diet

As well as the recommended diets in step 1, including the Paleo, Bulletproof and low-carb Mediterranean diet, a cup of organic blueberries each day is a good addition to your diet. Also spinach, kale, oranges—and other foods high in beta-carotene or vitamin C. Researchers believe that blueberries can help with memory decline due to their antioxidant properties.

Treatment: Supplements

The supplements used in this step include tocotrienols, tocopherols, selenium, vitamin C, N-Acetyl cysteine and alpha-lipoic acid. Tocotrienols and tocopherols are types of vitamin E, and Swedish researchers found that people with low levels of vitamin E were more likely to suffer from Alzheimer's. Selenium helps to protect the nerve cell function in the brain, preventing memory loss. N-Acetyl cysteine protects the nerve cells by acting as an anti-inflammatory agent in the brain. And alpha-lipoic acid is a powerful antioxidant that can slow down the Alzheimer's process.

Step 4: Optimize Gut Health

Researchers have discovered that there is a very strong link between the number of healthy flora in the gut and brain function. In fact, gut health is essential for managing many different medical illnesses—especially Alzheimer's.

Treatment: Diet

Again, the diets mentioned in step 1, including the Paleo, the Bullet-proof and the low-carb Mediterranean, should help to improve the health of your gut. They help to balance out the flora and bacteria that lives in the gut, which greatly improves the digestive system. This is because these diets are based on whole, healthy foods, and eliminate grains, carbohydrates and sugars, which can all upset the balance of flora in the gut.

Treatment: Supplements

The main supplement used in this step for promoting a healthy gut is a probiotic. A probiotic that also includes a prebiotic is even better. Probiotics break down glutamate, which produces gamma-amino butyric acid (GABA). GABA is a neurotransmitter in the brain, and research has shown that a deficiency in GABA results in memory decline and dementia. Therefore, probiotics are essential in ensuring the level of GABA is optimal.

Step 5: Plenty of Healthy Fats

Although we should stay away from harmful fats, there are some which are essential for our health. Healthy fats are needed to keep our brain functioning well. Unhealthy fats include trans and saturated fats, such as eggs, dairy and meat. Healthy fats are those that are polyunsaturated and mono-unsaturated, and include avocados, olives, seeds and nuts. Healthy fats help towards the production of acetylcholine, which is a vital chemical for learning, concentration and memory—which is why you should add some of these delicious healthy fats to your diet immediately.

Treatment: Fats

As well as DHA and EPA that were mentioned in step 1, another recommended fat to consume is MCT oil, which is derived from the oil of coconuts. This has been shown in research to be very good for improving Alzheimer's disease symptoms. MCT oil, or coconut oil, is readily available these days and can be used the same way as other cooking oils. This type of oil can also be used in many different types of recipes, including baking, instead of using unhealthy oils. The best way to tell if a fat is unhealthy is to look at the ingredient list. Watch out for anything labelled

as partially hydrogenated, as this is referring to a trans-fat.

Step 6: Enhancing Cognitive Performance and NGF (Nerve Growth Factor) Levels

This step is made up of supplements that should be taken to boost the speed of your cognitive function and regenerate the cells of the brain by stimulating the nerve growth factor. When the cells are healthy and regenerated, they function more effectively, thus improving memory. Many of these supplements are found in natural sources, particularly in mushrooms. These supplements also include an herb that has been used by Indians medicinally for generations.

Treatment: Supplements

Recommended supplements for this step include Lion's Mane (*Hericium Erinaceus*), mushroom extract, Bacopa Monnieri and citicoline. Lion's Mane is a type of mushroom that research has shown it contains 2 types of NGF. Multiple studies have shown it to have positive effects on how the brain works. Bacopa is an herb that has been used in traditional Indian medicine to treat memory problems. A trial on humans has shown an improvement in the areas of maintaining attention and verbal recall. Citicoline is a chemical that is naturally found in the brain. It has long been known that it increases the production of another chemical called phosphatidylcholine which is very important for brain function.

Step 7: Boost Mitochondrial Function

A contributing factor in Alzheimer's disease is when there is a decline of activity in certain brain cells. This may seem obvious, but here's *why* your memory starts slowing down:

It all has to do with mitochondria. Mitochondria regulate the metabolism of energy in the cells of the brain, which is vital for cell health and function. When there is a mitochondrial dysfunction, the ability of the brain to work effectively in areas of memory declines. You can treat this quickly, and easily, by adding a supplement to your daily routine.

Treatment: Supplements

The supplements recommended for this step are PQQ and CoQ10. In Alzheimer's there is often an accumulation of a protein called amyloid in the brain, and PQQ has been shown to reduce the amount of amyloid from forming. The use of CoQ10 in mice studies has shown it can help with improving memory and learning capabilities in the mice. I recommend you take a PQQ or CoQ10 supplement daily, in addition to the steps above.

Step 8: Mental and Physical Exercise

Mental and physical exercise is essential for everyone to stay healthy. Mental exercises keep the brain alert, and help to improve thought processes and memory. Physical exercise is vital to the health of your body, as it stimulates the circulation of blood throughout the body, making tissues and cells healthier.

Treatment: Mental Exercise

Any type of mental exercises is helpful at this step, including those that can be found on websites such as BrainHQ.com. Some suggestions are crossword puzzles, Sudoku, or any type of activity that requires memory and recall. It has been shown that simply exercising your brain helps to keep brain cells active—and prevent cognitive decline.

Treatment: Physical Exercise

You should try to do at least 30 minutes of physical exercise every day...preferably up to 1 hour if possible. Strength training or low impact cardio exercise should be undertaken between 4- 6 times each week. Low impact cardio and strength training are less strenuous on the body, but still increase the blood flow to vital organs such as the brain.

Step 9: Ensure Nocturnal Oxygenation

Nocturnal oxygenation refers to the amount of oxygen your brain receives during the night while you are sleeping. Not only do you need a good night's sleep, more importantly you need a good quality sleep. Some medical problems can interfere with your breathing while you are sleeping, which can lead to your brain being starved of vital oxygen.

Treatment: Sleep

Your brain needs plenty of oxygen to function correctly, and a disorder called sleep apnea can prevent this from happening. Sleep apnea causes multiple episodes during sleep where the breath is held, or stopped, and it starts again after a pause. When this occurs, your brain gets less oxygen, which can damage the cells of the brain. Treating apnea will allow your brain to get the oxygen it needs to keep the cells healthy and working properly. If you think you have sleep apnea, your doctor will refer you to a sleep clinic for a sleep study, and you may need to use a machine to keep you breathing while you sleep. This is called a CPAP machine, and you have to wear a mask which forces air into your lungs. A good hint that you may have sleep apnea is excessive snoring.

Step 10: Detox Heavy Metals

We are often exposed to heavy metals in our environment, and these have been linked to the development of Alzheimer's disease. Research has shown that getting rid of heavy metals in the blood can prevent Alzheimer's disease symptoms from worsening.

Treatment: Detox

Chelation therapy is the only method for removing heavy metals from the blood and the body. A chemical is injected into the bloodstream which removes any heavy metals and some minerals. It must be done by a medical professional in a clinical setting, as it can have dangerous side effects.

Case Studies—How the ICT Protocol Works on Real Patients

Patient 1

A 67 year old female presented with increasing loss of memory over a period of 2 years. Her job was very technical and demanding, where she needed to travel a lot and also had to prepare documents and reports. She was starting to struggle doing the reports, and she couldn't analyze data properly anymore. She was considering leaving her job.

Whenever she read a document, by the time she got to the bottom of the page, she couldn't remember what she had already read, and would have to start all over again. Her ability to recall numbers was also affected. She would often get lost driving along roads that she used to know very well. Other effects included forgetting where the light switches were in her home, and confusing the names of her pets.

Her mother had suffered a severe decline in her cognitive function in her early 60s. By the time she passed away in her 80s, she was seriously demented and had spent many years in a nursing home. Concerned she was suffering the same problem, the patient discussed her issues with her doctor who told her she did have the same problem as her mother and there was nothing that could be done. Unfortunately, because the doctor only documented 'memory problems' in her medical notes instead of a diagnosis of Alzheimer's, she did not qualify for long-term care if it was needed.

The thought of ending up like her mother, and knowing she couldn't get the care she needed, made the patient depressed and she thought about suicide. Thankfully a friend managed to get her an appointment to be assessed.

She began the protocol, and although she couldn't follow all of the steps, she still experienced a great improvement in her symptoms. Her memory improved dramatically, and she no longer got lost easily and was able to continue her work. In fact, she was still able to work full-time 2 ½ years later and at the age of 70.

Once during the protocol, the patient developed a viral illness, and had to stop following the program. Almost straight away she noticed her cognitive function and in particular her memory were starting to decline again, but once she restarted the protocol, the symptoms disappeared.

The parts of the protocol the patient was able to complete included:

- Eliminating simple carbohydrates from her diet
- Weight loss of 20 lbs.
- Removed processed food and gluten from her diet

- Increased her intake of fruit, vegetables and wild fish
- Began studying yoga
- Meditated for 20 minutes 2 times a day
- Used melatonin to help her sleep better
- Increased the amount of sleep to 7-8 hours per night
- Took 1 mg of methylcobalamin each day
- Supplemented with vitamin D3 each day
- 2000 mg of fish oil tablets every day
- She took 200 mg of coenzyme Q10 each day
- Began using an electric toothbrush and flosser
- Restarted hormone replacement therapy
- Fasted for 12 hours between dinner and breakfast
- Had her evening meal 3 hours before bed
- 30 minutes of exercise for 4-6 days each week

Patient 2

A 69 year old professional man had presented with memory loss that was getting worse over a period of 11 years. During the last 2 years before presentation, the loss had been increasing at a much faster rate. A scan of his brain in 2003 showed typical patterns for early Alzheimer's disease. Similar to patient 1, patient 2 also had difficulty recalling numbers, and forgetting what had been read previously by the bottom of the page.

Within 6 months of starting the protocol, patient 2 had improved a lot, and he was able to remember his schedule each day. He was also able to recognize faces again. His wife and co-workers noticed the dramatic improvements, and he was able to perform his work a lot easier than he had previously. Once again he was able to add up several numbers in his head quickly, a skill he had lost. Not only had he improved, but the speed he had been declining had been stopped.

For patient 2, the protocol involved the following:

- Fasting for at least 3 hours before bed
- Fasting for 12 hours between dinner and breakfast
- Eliminating simple carbohydrates and processed food from his diet
- Increased consumption of fruit, vegetables, wild fish, grass-fed beef and organic chicken
- He took probiotics
- Took 1 tablespoon of coconut oil twice a day
- Increased exercise to swimming 3 or 4 times each week, running once a week, and cycling twice a week
- He took melatonin to help him sleep
- Increased his sleep to 8 hours per night
- Took 250 mg of Bacopa, 500 mg of Ashwagandha and 400 mg of turmeric each day
- Took 1 mg of methylcobalamin, 0.8 mg of methyltetrahydrofolate, and 50 mg of pyridoxine-5 phosphate each day
- Also took 500 mg of citicoline twice a day
- Supplements of vitamin C, vitamin D3 and vitamin E each day
- 200mg of coenzyme Q10 daily
- Zn picolinate 50 mg per day
- DHA and EPA

Patient 3

A 55 year old female attorney had suffered progressive loss of memory over a 4 year period. She often left the stove on when she left the house. She also forgot about meetings that were scheduled and often overbooked meetings because she couldn't remember she already ones to attend. She started using an iPad to record meetings. Her children

noticed she would sometimes forget what she was talking about mid-sentence, and she was much slower in responding. Also, she would think she had asked them to do something, when she hadn't.

Patient 3 spent 5 months following the protocol and had a huge improvement. She could finally go back to work, and no longer needed to use the iPad or recording device during meetings. Not only was she able to return to her previous working standards, she was also able to go on to do more study.

The treatment for patient 3 on the protocol included the following:

- Fasting for at least 3 hours before bed
- Fasting for 12 hours between dinner and breakfast
- Eliminating simple carbohydrates and processed foods from her diet
- Increased her intake of fruits, vegetables, and wild fish
- Exercise 4-5 times each week
- Took melatonin to help her sleep
- Tried to get at least 8 hours sleep each night
- Used meditation and relaxation techniques to reduce stress
- Took 1 mg of methylcoalamine 4 times per week
- 20 mg of pyridoxine-5 phosphate per day
- 200 mg of citicoline each day
- Supplements of vitamin D3
- 200 mg of coenzyme Q10 per day
- DHA and EPA
- Hormone replacement
- Reduction of bupropion prescription

How to Make the ICT Protocol Work for You

As you can see, the steps of the ICT Protocol include diet, exercise for your body and brain, correction of hormone and antioxidant levels, and improving the gut flora. When gut flora become imbalanced, it can have a wide range of effects on the health of your brain and your body.

As shown in some of the case studies, stopping the protocol can result in a return of mental and memory problems. Yet restarting the protocol can reverse this trend. This may seem like the protocol is going to be difficult for some people to manage long term. However, it is just about changing your diet, and managing your vitamin and hormone levels.

Alzheimer's disease is a terrible disease, and the decrease in cognitive function can stop anyone from being able to take care of themselves. The development of the ICT protocol is exciting, and the potential it has to return people with Alzheimer's back to their normal state is a tremendous breakthrough. No longer does Alzheimer's disease have to be a death sentence.

If you believe you are suffering from early Alzheimer's disease, talk to your doctor to find out whether or not the ICT protocol is a possibility for you. The results of the studies completed to date are staggering, and the sooner you start the protocol, the sooner you can reclaim your cognitive function.

Chapter 2:

Five ways to avoid that hearing aid

I'll be honest with you: There's not much new to say about hearing loss. Mainstream medicine hasn't "discovered" the cause or cure for hearing loss, so they're usually not interested in spending much time on it. If your doctor has bothered to talk to you about it at all, it was probably just to recommend a hearing aid. But that's certainly not your only option.

Most of the research points to a link between age-related hearing loss and low levels of vitamin B12 and folic acid. In one study published in the *American Journal of Clinical Nutrition*, researchers examined hearing in 55 women.¹ They found that the lower the women's levels of vitamin B12 and folic acid, the worse their hearing. Specifically, women with impaired hearing had 38 percent lower serum vitamin B12 levels and 31 percent lower folate levels than women with normal hearing.

It sounds easy enough to correct: Just take vitamin B12 and folic acid supplements. But these results were found in women already taking B12 and folic acid. It doesn't seem to add up: Low levels of these nutrients are associated with hearing loss, so why didn't their supplements help? My guess is that their stomachs had something to do with it.

It all goes back to your stomach

Age-related problems like macular degeneration and hearing loss usually trace back to poor stomach function—especially a condition called hypochlorhydria, or low stomach acid. As you age, stomach function slows down and produces less and less acid. If your stomach isn't producing enough acid, it won't digest your food—or your supplements—efficiently. So even if you're taking the right supplements for the job, they won't help as much as they could if your stomach were functioning properly.

With that in mind, your first step should be to have your digestion tested. Many physicians test this by radio telemetry using the “Heidelberg capsule.”

To take this test, you'll swallow a small, plastic capsule that contains electronic monitoring equipment. As it moves through the stomach and intestines, the capsule can measure the pH of the stomach, small intestine, and large intestine. This information can help your doctor determine whether or not your stomach is producing adequate amounts of acid.

If your test results indicate low levels of stomach acid, it's a good idea to supplement with either betaine hydrochloride-pepsin or glutamic-acid hydrochloride-pepsin before meals. To start, I usually recommend taking one capsule (5, 7 1/2, or 10 grains) before each meal. After two or three days, if there are no problems, take two capsules in the early part of the meal, then increase your dose to three capsules per meal several days later. The dose is gradually increased until it equals 40 to 70 grains per meal.

Hydrochloric acid should never be used anti-inflammatory medications. This method should only be used when testing indicates a need for it and should always be carefully monitored by a physician.

Your step-by-step supplement guide for fighting hearing loss

If you do have hypochlorhydria, even correcting the insufficient levels of acid and pepsin may not be enough to help you absorb vitamin B12.

So in this case, it's a better idea to take this nutrient by injection. I usually recommend injections of 1 cc of vitamin B12 (containing 1,000 micrograms) and 1/2 cc of folic acid (containing 2.5 to 5 milligrams).

Sublingual vitamin B drops are worth a try, but the absorption is variable from person to person. In other words, they may or may not help you.

In addition to vitamin B12 and folic acid, zinc has also been linked to hearing—especially tinnitus, a condition characterized by ringing in the ears. In a study, researchers found that patients with tinnitus had significantly lower levels of zinc than controls.² In another study, researchers found improvement in 46 percent of tinnitus patients taking 50 milligrams of zinc per day for two months.³

And last, but not least, on the list of nutrients to combat hearing loss is vitamin D. I know this vitamin keeps popping up over and over again, but that just goes to show you how important it is. Several studies have suggested that vitamin D deficiency might play a role in hearing loss.^{4,5}

So make sure you're getting enough vitamin D—2,000 to 3,000 IU is a good general range.

I can't promise that following the steps outlined above will cure or reverse your hearing loss. But all of these recommendations are as good for your overall health as they are for your ears, and if they help keep you from ever needing that "doctor-recommended" hearing aid too, all the better.

Chapter 3:

The mineral breakthrough helping terminal patients defy death: And why you should be taking a little of it too

Between the lack of any media coverage at all about the hundreds of encouraging lithium research papers, and the general impression that lithium is a prescription “drug” used “only” for bi-polar disease, even the most dedicated anti-aging enthusiasts are seldom taking advantage of the brain-protective and brain anti-aging effects of low-dose lithium.

If you're one of the many people not using supplemental low-dose lithium yet, you may want to take another look at it—especially since some very recent research reports have added even more weight to the already heavy mountain of evidence in favor of lithium's brain-protective benefits. In fact, a groundbreaking study appeared in the *Proceedings of the National Academy of Sciences* journal showing that lithium may help halt the progression of a degenerative disease even more deadly than Alzheimer's.

But before I tell you about the new lithium breakthrough, let's review a bit.

Just for the record: Lithium is a mineral element in the same “family” as sodium and potassium. It’s not a drug, and definitely not patentable, which is very likely why you haven’t read or heard much in the media about its enormous potential for protecting and improving brain health, despite truly abundant and all-positive research.

Below are titles of some studies on lithium and the brain, along with descriptions of what each article reported.

More brain power—literally

“Lithium-induced increase in human brain grey matter”¹

“Lithium stimulates progenitor proliferation in cultured brain neurons”²

Using MRI scans, the researchers in the first study found that lithium actually increases the numbers of brain cells in older individuals. The second headline explains at least part of how lithium does this. This study found that lithium stimulates “progenitors,” which promote the growth of new nerve cells.

Using lithium safely

It’s extremely rare for a person using low-dose lithium to report symptoms of excess. But just to be on the safe side, it’s important to know the signs of lithium toxicity, which include hypertension, tremor, and nausea. Luckily, it’s very simple to keep any of these things from occurring in the first place: Taking extra quantities of essential fatty acids will prevent any possibility of lithium toxicity.

I always recommend that anyone taking lithium also take a teaspoonful or two of flaxseed oil (or other essential fatty acid) along with 400 IU of vitamin E (as mixed tocopherols) each day.

Three-pronged protection against the most common brain-destroyers

“Neuroprotective effects of chronic lithium on focal cerebral ischemia in rats”³

“Lithium at 50: Have the neuroprotective effects of this unique cation been overlooked?”⁴

“Lithium exerts robust neuroprotective effects *in vitro* and in the CNS *in vivo*: Therapeutic implications”⁵

These studies explain more about how lithium protects the brain. There are lots of research articles showing that lithium protects against both internally produced molecules toxic to nerve cells (such as glutamate) and external toxins (including aluminum). But the first group of researchers above reported that lithium not only protects brain cells against toxins, but also against lack of blood flow.

The second article explained that one way lithium protects neurons is by increasing levels of a major neuroprotective protein called “bcl-2.” Bcl-2 also increases regeneration of neural axons, the “branches” that project out from the main bodies of nerve cells and contact other neurons.

And the third study headline shows just how impressive these results are: “Robust” is a term rarely seen in the titles of research articles. Basically, scientific publications use it as a restrained code word for “Wow! That really works!”

The best—and least used—treatment for Alzheimer’s

“Lithium inhibits amyloid secretion in COS7 cells transfected with amyloid precursor protein C100”⁶

“Lithium protects cultured neurons against beta-amyloid-induced neurodegeneration”⁷

Amyloid and beta-amyloid are byproducts of nerve cell metabolism that, in excess, contribute to Alzheimer’s disease. These two studies

showed that lithium inhibits amyloid production and protects nerve cells against damage from excess beta-amyloid. Other researchers have reported that lithium also prevents the formation of “neurofibrillary tangles,” another contributor to Alzheimer’s disease.

And here’s another encouraging study “headline” that came out very recently:

“Lithium: A novel treatment for Alzheimer’s disease?”⁸

This research review from the Indiana University School of Medicine cites some of the evidence noted above and considerably more, and came to the following conclusion: “One intriguing clinical application is in the treatment of Alzheimer’s disease.”

But after reading all the other research evidence that came before this, I think its potential goes well beyond “just” treatment of Alzheimer’s disease. After all, “a milligram of prevention may be worth a kilogram of cure.” And since low-dose lithium is so safe, it really should be a part of everyone’s supplement program—especially if you have a family history of Alzheimer’s disease, senile dementia, Parkinson’s disease, any other neurodegenerative disease (or if you just want to “keep all your marbles”).

I generally recommend 10 to 20 milligrams of lithium (as aspartate or orotate) daily. Of course, like any other substance, lithium can be dangerous in high doses, so please be sure to read the box on above about using lithium safely.

Battling inner demons with an all-natural weapon

“Lithium in drinking water and the incidence of crimes, suicides, and arrests related to drug addiction”⁹

“Lithium and the treatment of alcoholism: A critical review”¹⁰

They may seem unrelated to the previous studies listed, but both of these articles show lithium’s potential to protect against a different type of disease—addiction. One study also shows that even very low

levels of lithium have a measurable effect: In the first study, researchers found that levels of lithium less than 200 parts per million in drinking water are associated with significantly fewer arrests for crimes committed as the result of drug addiction: Homicide, robbery, rape, suicide, and drug trafficking.

The second study was a review of lithium treatment for alcoholism. These researchers concluded that lithium significantly improves mood and behavior in alcoholics, and is even associated with fewer repeat hospitalizations for alcohol intoxication.

New hope for a “hopeless” disease

Unfortunately, despite all of these proven benefits, the mainstream still basically ignores lithium. But when the following research paper was published in February, the title alone was so shocking and such a potential breakthrough against an otherwise rapidly fatal disease that I thought for sure—finally—there would be some mention in the “mass media world” of newspapers, radio, and television.

There wasn’t!

So unless you’ve been actively searching “online” because you have a loved one dying of this disease, you’ll probably be reading the following “headline” for the first time:

“Lithium delays progression of amyotrophic lateral sclerosis”¹¹

You may know amyotrophic lateral sclerosis by its more common names, ALS and Lou Gehrig’s disease. This “nickname” came after the disease struck home-run-hitting major-league baseball player Lou Gehrig back in 1939. After his diagnosis, Gehrig deteriorated very rapidly: Less than two years after his initial symptoms of weakness and stumbling appeared, he suffered a helpless, totally-paralyzed death. The same has happened to nearly all other ALS victims. So anything at all which “delays progression” of this terrible disease should receive major media attention—even if just a brief notice to “get the word out” to ALS sufferers.

Actually, the term “delays progression” used in the study’s title is quite conservative. Lithium treatment definitely did much better than that.

Quoting from the summary: “ALS is a devastating neurodegenerative disorder with no effective treatment...we found that daily doses of lithium...delay disease progression in human patients affected by ALS. None of the patients treated with lithium died during the 15 months of the follow-up, and disease progression was markedly attenuated when compared with age-, disease duration-, and sex-matched control patients treated with riluzole for the same amount of time.” Riluzole is one of several patent medications used to “treat” ALS, with practically no effect.

The researchers observed two groups—16 patients who took lithium along with “routine” riluzole treatment, and 32 who took just the riluzole. The patients in the riluzole-only group experienced an average symptom worsening of 50 percent in just the first three months, and 30 percent of the “riluzole-only” patients died within the 15-month study period. In stark contrast, none of the patients who took lithium died within the 15 months. In fact, none of them even got significantly worse.

This is a fantastic breakthrough, and hopefully it will revive interest in clinical trials—and clinical usage—of lithium for nearly any disease in which brain cells and nerve cells are degenerating.

But don’t try this for a loved one on your own! The lithium dosages the researchers administered to the ALS patients in the study were considerably larger than the typical brain anti-aging doses. While they can be safely tolerated by most adults, they definitely require close and careful monitoring by a physician skilled and knowledgeable in nutritional and natural therapy.

Chapter 4:

Alzheimer's breakthrough reveals an all-natural nutritional solution to protect your precious memories

Dementia runs in my family. My grandfather had severe Alzheimer's disease, which is why when my father misplaces his keys (which should be acceptable in a 91 year old!) we all glance nervously at one another.

I've always been interested in neurological illness, and have treated many patients with Alzheimer's disease—and similar neurological conditions—over the years. People often come to see me looking for an “out of the box” alternative to the litany of drugs conventional medicine has tried to shove down their throats.

And then 10 years ago it happened. I developed Parkinson's disease. It came out of the blue, launching me on a 10-year journey investigating the causes and treatments of neurological conditions. And through that investigation I've discovered the critical factors that cause neurological illnesses like Alzheimer's disease (and Parkinson's), and uncovered natural ways of preventing and treating them.

This knowledge has kept me drug-free and physically active for the past decade, enabling me to help countless others as well. But, shockingly, the root causes of these diseases are already known. This life-saving knowledge is readily available and entirely supportable by medical literature—for those who just bother to look.

Unfortunately few doctors do. And this is a BIG problem because the standard treatments for Alzheimer's just flat out don't work. Like most modern drugs used to treat chronic ailments, those used to "treat" Alzheimer's, Aricept and Namenda, at best slow the progression of this disastrous disease. They're really nothing more than band-aids that you have to take forever. And the reason why is simple, they don't address the root cause of memory loss and Alzheimer's.

Toxins target your vulnerable brain

It turns out toxins in our environment are a leading cause of these neurological illnesses. You see, the human body is actually built to protect our brain from these toxic assaults by eliminating them when we're exposed. But every once in a while these built-in protection systems come with a defect and this bug in the system keeps your body from effectively eliminating the toxins. With virtually nothing standing between your vulnerable brain and these poisons severe neurological consequences and damage can develop.

The sad reality is that we live in a toxic world. These poisons surround us. Our brains are being marinated in them daily, and this constant low level of exposure over time is slowly killing us and robbing us of our precious memories. And to make matters even worse, we're not going to be able to stop this onslaught anytime in the foreseeable future.

The evidence that these toxins have deep and devastating effects on a cellular level continues to stack up. A recent study published in the journal *Current Alzheimer's Research* is just one example among many. Researchers reviewed the available data linking environmental toxins to Alzheimer's disease, and revealed the frightening path these toxins take, literally altering the metabolic pathways associated with the development and progression of the disease.

In other words, they confirmed the root cause of this terrible disease! These incredible findings should have been splashed across the front page of every single newspaper and website in the world. And yet, chances are you've never even heard about this study before.

Why? Well the short answer is that some pretty powerful people like it that way. The big industries, specifically those that produce the toxins that are slowly poisoning us, have a stake in keeping us from learning the truth. And that's especially true of the heavy metals industry, which is unleashing a wave of Alzheimer's and other neurological diseases.

Heavy metal mayhem destroys memories

Heavy metals—mainly mercury, aluminum and copper—have been clearly linked to memory loss. But of the three, mercury is by far the biggest culprit. High levels of this heavy metal in the brain lead to two brain abnormalities connected to Alzheimer's disease, neurofibrillary tangles and amyloid plaques. And mercury levels in the brains of Alzheimer's patients are typically at least three times that of the rest of the population.

While you may already be aware of the dangers of high mercury levels in certain fish and seafood, what you may not realize is that no matter how pristinely you eat you're still being exposed to this metal. That's because the coal-burning industry is pumping out a staggering 48 tons of mercury into the air every year.

Another frequently overlooked heavy metal, aluminum, has been linked to Alzheimer's disease for over 20 years now. According to the CDC, we ingest 7-9 mg of the stuff every single day. When you add that to the exposure that comes from lathering on antiperspirants, cooking with aluminum utensils, and taking aluminum-containing drugs and vaccinations, the effects can be devastating.

And then there's the growing threat of copper. The amount of this heavy metal in our environment is skyrocketing, which is alarming since it's been shown to have toxic effects on the neurological system and has been specifically linked to Alzheimer's.

In addition, high copper levels have been found to destroy essential detoxifying nutrients including vitamin C, B vitamins and zinc. If you're a woman taking birth control pills you need to be especially careful, since these drugs can raise your copper levels.

An integrative medicine doctor can test your levels of these heavy metals, and if they're found to be dangerously high can help you get started on an effective detoxification plan.

“Master antioxidant” could be the key to beating Alzheimer’s

Day in and day out you're being bombarded by neurotoxins. And while your body does its best to fight back that assault, eventually, like continuing to stuff garbage into a trashcan until it's overflowing, the toxic debris starts leaking over the sides and builds up in places like your brain. This can lead to a variety of troubling symptoms including the types of brain and memory issues we've been talking about today.

But despite this onslaught we don't all succumb to Alzheimer's or other degenerative toxin-related diseases. That's because our individual genetic makeup comes into play. While the human body is an amazing vessel, and the brain has an incredible built-in protection system (more on this in a moment), in the end we're all individuals and our bodies respond to the toxic assault differently. Some of us reach the point of toxic overloaded sooner than others.

Your brain has a natural method of protecting itself against the onslaught of mercury, aluminum, copper and other toxins... it enlists the help of the amino acid glutathione. Glutathione—often referred to as the master antioxidant—is a powerful detoxifier and immune system enhancer that serves as the main antioxidant protectant of the entire body.

Glutathione is produced and regenerated in a powerful process called methylation that's responsible for immune system function, brain chemical (neurotransmitter) production, organ protection and detoxification. During the methylation process enzymes, which are controlled by our

genes (one in particular, MTHFR, is critical in the methylation process), use B vitamins and other nutrients to churn out an almost endless supply of the master antioxidant.

Well, when the process works correctly that is.

And here's where things get REALLY interesting. I've discovered that an alarmingly high percentage of patients have slight genetic blips in their DNA that hamstrings their ability to make the amount of glutathione they need to effectively tackle those toxins we've been talking about. Even worse, some unfortunate people have far more than just genetic blips in their ability to produce glutathione... instead they practically have gaping holes. And without sufficient glutathione protection they're prone to significantly more neurological damage.

In other words, that "minor" memory loss you or a loved one have been experiencing—the forgetfulness you may have already chalked up to normal aging—could actually be an outward sign of a slow buildup of toxins, along with a slow loss of glutathione. It's a basic supply and demand problem, but with devastating consequences.

But it's not all bad news because knowledge is power. Now that we know that methylation and the production of glutathione are the key to unlocking the mysteries of Alzheimer's, we can focus on bypassing these potential defects with nutrients. An approach that, unlike current Alzheimer's drugs, targets the true root cause of the neurological damage.

Tackle toxins using this powerful triple-nutrient combo

Cerefolin NAC is a powerful nutraceutical brain supplement aimed at helping to prevent Alzheimer's and memory loss. This, prescription only, natural treatment (known as a medical food) was created to address problems with methylation and to target the toxic damage that's linked to memory loss. Cerefolin NAC contains sophisticated "activated" versions of B12 and folic acid, as well as the potent amino acid NAC (a well-known glutathione producer).

This triple-threat combo of powerful nutrients aids the liver in genetically bypassing methylation defects so your body can generate generous amount of glutathione. This smart medicine approach not only helps the body process the onslaught of new toxins that we're exposed to every day it also helps with detoxification, purging the old toxins out of the body.

Covering the cost of a breakthrough

Unfortunately, there is one downside to Cerefolin NAC. Despite being an incredibly effective treatment, some insurance plans refuse to cover this natural solution. It can be quite expensive... but for good reason. Despite not having the resources that a traditional drug company would have at their disposal, the holistic company that created this breakthrough nutraceutical took one for the team. They forked over the cash and man hours that were needed to complete the studies proving that raising glutathione does indeed combat memory loss.

And frankly, their considerable investment has given us a priceless gift. They not only introduced the world to the methylation and glutathione connection to Alzheimer's and provided us with an effective solution to combat this devastating condition, but they simultaneously proved to the conventional medicine community that supplements and natural remedies are the real deal. And for that they should be applauded.

If your doc refuses to write you a script for Cerefolin NAC, or if you just find the medical food is simply too pricey for your pocket book, I've got good news. Although Cerefolin NAC is available only by prescription, you can get a similar memory-saving effect by combining natural glutathione-enhancing ingredients that are readily available at your local vitamin shop, or online, including B vitamins, NAC, alpha lipoic acid, zinc and selenium.

By combining these powerful natural ingredients you can unlock the ability to produce a continuous supply of glutathione and protect your valuable brain cells and invaluable memories.

Chapter 5:

“Clean” your brain and stop dementia and Alzheimer’s with these simple sleep trick

Imagine being able to boost your immune system, improve your memory and even ward off devastating diseases like Alzheimer’s—all while lying flat on your back.

You know how important sleep is to your memory and your health. And we’ve all experienced the brain fog after a rough night tossing and turning in the sack.

But researchers are now claiming that too many sleepless nights could cause dangerous toxins to accumulate in your brain, triggering inflammation, dementia and even Alzheimer’s. And just a few simple sleep tricks could be all it takes to keep your brain “clean” from these poisons and razor sharp in your golden years.

Poor sleep linked to brain disease

As we age, the ability to remember becomes more of a challenge. And diseases such as Alzheimer’s—which frequently starts with the forgetting

of names, facts and basic orientation—may have an overlooked connection to sleep. Much of our ability to remember things depends on good quality sleep—and that means that while a lack of sleep doesn't cause Alzheimer's, it could make it show up decades earlier.

We also know from current research that good sleep is critical for proper immune system function. T cells (the large family of lymphocytes that form the cornerstone of our immune response) plummet when we're sleep deprived. Even healthy people with robust immune systems experience a loss of immune system function when they don't get enough good quality sleep. This can lead to colds and flu, an inability to ward off chronic conditions such as shingles and may even make us less able to fight off cancer cells.

In addition to its effects on lymphocytes and other white blood cells, sleep deprivation raises the level of inflammatory messengers in your body. Several studies have shown that sleep deprived people have higher levels of inflammatory cytokines such as IL-6 (interleukin-6) and inflammatory markers such as CRP (C-reactive protein). And unchecked this inflammation can have dire health consequences contributing to heart disease, cancer and brain diseases such as Alzheimer's.

Get more shuteye for a sparkling clean brain

But as important as memories and immune function are, we're just beginning to understand the critical function sleep plays in maintaining our health. Dr. Maiken Nedergaard, a sleep biologist who runs the sleep laboratory at the University of Rochester, has been doing exciting research into the role of sleep in proper brain function. And in time her team uncovered a tantalizing new idea: Sleep is your body's way of cleansing your brain.

Our bodies have a built in method for cleaning out toxins called the lymphatic system. Lymph, a colorless fluid that contains white blood cells, courses throughout our bodies using an intricate system of lymph channels. The lymph weaves between cells carrying macrophages and

other immune cells that can move into body tissues engulfing debris and the toxic products of metabolism.

But cleansing lymph cells are unable to reach the brain, which is encased behind a protective blood-brain barrier. Your brain uses an incredible 20 percent of your body's total energy to perform its critical functions, and all of that energy expenditure naturally creates a lot of waste products. Some of those waste products, like tau protein and beta-amyloid plaques, can be toxic to your brain, leading to Alzheimer's and similar dementias if they aren't removed.

When we're awake, our brains are too busy and active to be heavily involved in cleansing. We do have "clean-up" units called glial cells whose job it is to move through the fluid spaces of our brains during the day. But the glial cells only clean up the surfaces of the brain while we're awake. That's where Dr. Nedergaard's discovery, derived from mouse studies, comes in.

A "dirty brain" is linked to Alzheimer's

Tagging markers were injected into the cerebrospinal fluid of mice and tracked. They were found to follow specific pathways through the brain and out again. When the mice were asleep, however, the fluid exchange increased by 20 times!

It turns out that while we sleep our brain cells actually shrink. This shrinkage allows the channels between the cells to swell and fill up with cerebrospinal fluid, providing a medium for the cleansing glial cells to move in and around each cell, removing any debris they discover.

The researchers measured a 60 percent increase in the flow through the interstitial fluid, the channels around and between the brain cells which were inactive when the brain was busy in activities of wakefulness. This finding was so shocking that at first the researchers thought they must have calculated wrong. But on repetition it became obvious that the sleeping brains were clearing out twice as much waste as the waking brains. And much of that waste was identified by the researchers as beta-amyloid, the toxic substance linked to the development of Alzheimer's disease.

Much like the white blood cells found in lymph, the glial cells move throughout the brain gobbling up waste products and washing them through the channels of the cerebrospinal fluid. Dr. Nedergaard coined the term “glymphatic system” to describe the brain’s cleansing process that’s remarkably similar to the lymphatic system of the rest of the body. Similar studies in dogs, goats and baboons have confirmed the presence of this sleep-induced cleansing system, and human studies are being planned.

Get control of this hidden condition for better sleep

While it’s clear that adequate sleep plays a critical role in protecting us from the build-up of damaging dementia-linked toxins, frighteningly, a stunning 50-70 million Americans are currently suffering from insomnia and other sleep disorders such as sleep apnea.

Sleep apnea is a condition that causes you to literally stop breathing repeatedly throughout the night for several seconds at a time. Sleep apnea sufferers may snore loudly or simply have periods of silence followed by a gasping for air, and they’re often unaware they even have the condition until a spouse or roommate brings it to their attention. Extreme fatigue and unexplained high blood pressure are other signs of sleep apnea and either, or both, could cause your doctor to suspect you have the condition.

A sleep apnea diagnosis is made by scheduling a “sleep study,” during which you spend a night in a sleep lab attached to electrodes that monitor your oxygen level and sleep rhythms.

Sleep apnea is usually caused by one of three things: 1. extra fatty tissue in the adenoids or back of the throat, 2. too much weight in the neck and facial areas, or 3. swelling of the adenoids and sinuses.

Losing weight can often help reverse the condition for many sufferers. Since allergies can be responsible for sinus and adenoid swelling, treating allergies can help relieve apnea as well. And in the most extreme cases surgery may be required.

CPAP and BiPAP machines that push air through the obstructions at night are often prescribed as well. These machines have become less obtrusive in recent years, but they still aren't tolerable for many. As a first step I often have my own patients try a small non-invasive device that slides into the nostrils. Provent (www.proventtherapy.com) can help provide just enough of an increase in breathing passages to improve sleep for some sufferers.

Six shuteye tricks to try

Insomnia, trouble either falling asleep or staying asleep (or both), is another common sleep problem. But today I'm going to reveal my six secret tricks for beating insomnia and finally getting some quality shuteye.

Shuteye trick #1: Try to go to bed at the same time each night. We are creatures of habit, and our bodies can essentially be trained to begin winding down and preparing for sleep at a specific time if we stick to the same routine.

Shuteye trick #2: Try elevating the foot of your bed a few inches. Believe it or not, there are multiple reports and some scientific data suggesting that elevating the foot of the bed increases circulation into the brain at night.

Shuteye trick #3: Turn off any blue light screens in the room, including tablets, laptops, phones and computer screens at least an hour before bed. Studies show that these devices send our brains mixed messages if we use them while we're trying to settle down for sleep.

Shuteye trick #4: Don't do work, or any type of heavy problem solving, in bed. Choose another room in the house to be the room for cerebral activity, and leave your bedroom for intimacy and sleep ONLY.

Shuteye trick #5: Try taking a warm bath before bedtime. Epsom salts, containing the valuable sedating mineral magnesium, will assist in the relaxation process.

Shuteye trick #6: If waking up during the night is your main issue,

try eating a very light snack before bedtime. Low blood sugar is one of the most common causes (next to frequent urination) of waking in the middle of the night. A couple almonds, a few spoons of full-fat yogurt or even a bit of almond butter on a cracker can frequently do the trick.

Skip the sleep drugs and go natural instead

Of course, if you still need a little extra help, Big Pharma will be more than happy to supply you with pills to drug you to sleep. But taking them can be disastrous. Many of these heavy duty meds are addictive, and some can even be life-threatening. In addition, studies show that users often get very little extra quality sleep using them.

Instead of putting yourself at risk with questionable drugs, I suggest you try some safe alternatives. My favorite natural sleep remedies include: valerian, skullcap, magnesium, melatonin, 5-hydroxytryptophan (5-HTP) and/or L-Tryptophan, Jamaican Boxwood, L-Theanine, GABA and GABA-promoting nutrients, phosphatidylserine, and curcumin.

One of these natural sleep remedies, or a combination of them, could be the key to finally getting the quality sleep you need to stay healthy and hold on to your precious memories.

If you find you're still having trouble sleeping I suggest you make an appointment to see an integrative medicine doctor who can help get to the bottom of your sleep problems, and personalize a plan to get you the critical shuteye you need. Pleasant dreams!

Chapter 6:

The vitamin that erases 20 years of aging in 90 days

By: Michele Cagan, Health Sciences Institute.

Imagine if the fountain of youth really existed. Imagine if you could wash yourself in its healing waters and walk away feeling and looking like you were in your prime again. What if you didn't have to worry about cancer, hypertension, or other age-related diseases?

Just think about it would you live your life differently? Would you spend more time visiting friends, outdoors, or at the beach? Would you get started on all those projects around the house that you never have the energy for? Would you lead a more active love life, take up a new hobby, change careers, or just play with your grandchildren on the floor once in a while?

This doesn't have to be just a fantasy. You can now slow, halt, and even reverse the effects of aging on your body. The Health Sciences Institute has recently uncovered what could be the most powerful anti-aging supplement ever developed. This breakthrough has been proven to liter-

ally reverse the body's aging process by rebuilding old, damaged cells. With this powerful, life-changing panacea you can:

- Protect your cells from degenerative ailments like heart disease, MS, and Parkinson's disease
- Improve chronic age-related conditions like arthritis and osteoporosis
- Wipe away wrinkles and liver spots
- Feel an overwhelming sense of well-being throughout the day
- Regain muscle mass and mobility in your limbs
- Improve the luster and vitality of your hair, nails, and skin
- Sleep through the night and wake up feeling alert and energized
- Boost your immune system

Ultra H-3 promises all this and more. It's the next generation of an anti-aging formula developed in Romania almost 50 years ago and heralded by the TV show 60 Minutes back in 1972. The difference is, Ultra H-3 is six times stronger and lasts 15 times longer than the original Romanian formula.

This cutting-edge compound has been developed by a distinguished think-tank of scientists and researchers-including, acclaimed author, and nutritional expert, Ann Louise Gittleman, N.D., C.N.S, M.S. It's just been patented in the United States, so there aren't many clinical studies yet. However, the initial results collected by Gittleman and her associates are so astonishing, we wanted to tell you about it immediately so you don't have to wait years for Mike Wallace to get wind of it.

The Romanian anti-aging miracle similar to an ingredient every dentist uses

The story of Ultra H-3 actually begins almost 100 years ago in Austria. Procaine-the primary active ingredient in Ultra H-3 was first discovered in 1905 by biochemist Dr. Alfred Einhorn while he was looking for

a non-toxic, non-addictive anesthetic. At the time, cocaine was primarily used, but its negative characteristics were becoming apparent and its use was going to be outlawed. Procaine (very similar to novocaine) became a safe alternative anesthetic.

Nearly 50 years later in 1949, Dr. Ana Aslan of the National Geriatric Institute in Bucharest, Romania, discovered Procaine's anti-aging properties virtually by accident. Familiar with its anesthetic properties, Dr. Aslan began to inject her elderly arthritis patients with Procaine. To her surprise, not only did her patients experience decreased pain and increased mobility, they also began to experience overwhelming physical and mental improvements.

Dr. Aslan called her new discovery GH-3 and began a massive series of clinical trials that studied the effects of Procaine on 15,000 patients between ages 38 and 62. The study included over 400 doctors and 154 clinics, and at that point may have been the largest double-blind trial ever undertaken.

Procaine repairs the damage of old age, toxins, and disease from the inside out

By the time most of us reach 30, our bodies stop reproducing cells at the rate they once did. We literally lose more cells than we gain. And the cell membranes begin to erode and don't absorb nutrients as efficiently. New scientific evidence even suggests that many degenerative diseases—such as cancer, MS, and Parkinson's—are manifestations of damage to these cell membranes.

Dr. Aslan and her research team found that Procaine works by penetrating old or damaged cell membranes and repairing the erosion caused by old age, disease, toxins, food additives, and stress. Bathed in this powerful elixir, cells in the body are then able to receive nutrients and vitamins and expel toxins effectively. This makes for a healthier—and younger—body, from the inside out.

In 1956, Dr. Aslan presented her findings to the European Congress for Gerontology meeting in Karlsruhe, West Germany. While her claims

were initially met with skepticism, Aslan's astonishing conclusions could not be ignored for long:

- Close to 70 percent of GH-3 patients never contracted a disease
- Overall, the death rate in the GH-3 group was more than 5 times lower than the placebo group over 3 years
- Patients were less prone to infectious diseases and seasonal influenza
- Reduction of sick days off work by almost 40 percent
- Joint mobility improved in 56 percent of cases²

While not a cure to any single disease, GH-3 was proven to target and improve many common chronic diseases and conditions including:

- Arthritis
- Chronic fatigue disorder
- Depression
- Sleep disorder
- Migraine headaches
- Lethargy
- Multiple sclerosis
- Decreased sex drive
- Poor circulation
- Excessive cholesterol
- Parkinson's disease
- Peptic ulcers
- Heart disease
- Acne
- Osteoporosis
- Hodgkin's disease

- Liver spots
- Failing memory
- Varicose veins
- Hypertension
- Emphysema
- Rheumatism
- Dementia
- Sickle cell anemia

60 Minutes uncovers Dick Clark's anti-aging secret

During most of the 1960s, GH-3 fought its way through U.S. federal regulations. Then in 1972, Mike Wallace of 60 Minutes did an investigative piece on this underground anti-aging formula and much of the western world finally took notice.

Since it was first developed, over 100 million people in more than 70 countries have used Dr. Aslan's formula. Hundreds of thousands of people were treated with GH-3 at her Romanian clinic, including many leaders from around the world, such as Mao Tse-Tung, Charles de Gaulle, Ho Chi Minh, Winston Churchill, and John F. Kennedy. Even many Hollywood stars-including Dick Clark, the Gabor sisters, Marlene Dietrich, Charlie Chaplin, Lillian Gish, Lena Horne, Charles Bronson, Kirk Douglas and Greta Garbo. All traveled to Romania for Dr. Aslan's GH-3 treatments.

Next generation formula is six times stronger than the GH-3 and without the downside

While Dr. Aslan's results were extraordinary, her Procaine formula has its limitations-its beneficial effects wore off too quickly and the market was (and is) flooded by cheap and ineffective imitations. But now you are among the very first in the United States to hear about Ultra H-3, the new and improved Procaine compound.

According to Gittleman, “Ultra H-3 is the most advanced and only patented Procaine formula ever developed. It’s so powerful, many people respond to it within the first three days. I have actually had to reduce my dosage to half a pill because it’s so powerful.”

The secret to the new formula lies in the purification process. Ultra H-3 is run through a highly complex filtering process-making it 100 percent bioavailable. That means all the Procaine nutrients can be absorbed into the blood stream. Otherwise, Procaine leaves the body too quickly, providing only temporary relief.

Ultra H-3 actually lasts 15 times longer and is 6 times stronger than Dr. Aslan’s formula, which only delivered 15 percent of the nutrients and costs thousands of dollars to administer.

According to Gittleman, “Ultra H-3 is a potent anti-aging supplement that keeps you feeling energized all day long. We have an enormous number of success stories from people who’ve felt relief from arthritis, depression, and lowered libido, and other chronic ailments associated with aging. We have even seen a return of some patients’ original hair color. But most of all, you feel this overwhelming sense of well-being.” Gittleman added, “It’s almost like an adaptogenic herb-it seems to provide whatever your body needs.”

Ultra H-3 is all-natural, and you don’t have to go to Romania to get it

Like the original formula, Ultra H-3 is a completely natural substance, and you don’t need a prescription. It comes in pill form and should be taken once or twice daily (six to eight hours apart) with a glass of water, one hour before or two hours after eating. For most people, taking Ultra H-3 twice a day on an empty stomach for three months gets the best results.

Ultra H-3 can be taken with other vitamins and supplements. In fact, your regular supplements may be absorbed more efficiently while taking it. For ordering information on Ultra H-3, go to www.unikeyhealth.com or call Uni Key Health Systems at 800-888-4353.

Chapter 7:

Don't go deaf, blind or lose your mind! Natural strategies for keeping your hearing, vision, and thinking sharp well into old age

“**E**h? What's that you say? Louder, please. No, don't bother writing it down, can't see very well, either! Oh, never mind...I probably won't remember it, anyway!”

If you chuckled when you read that, it's probably because it sounds familiar—whether it's something you remember your parents or grandparents saying, or whether you've uttered similar things yourself. And while it sounds funny on the surface, the unfortunate truth underlying phrases like these is that varying degrees of failing hearing, vision, and mental function are still considered to be “normal” with advancing age.

But they need not be “normal” for you! In this chapter, we'll cover prevention and treatment of “age-related” hearing, vision, and cognitive functions, while you—and I—can still remember how to lower your chances of going deaf, blind, or losing your mind!

The hormone deficiency that could be destroying your hearing

Dennis Trune, Ph.D., of Oregon Health Sciences University, pioneered the research showing that the naturally occurring adrenal steroid hormone aldosterone can often reverse hearing loss in animals.

Based on Dr. Trune's work, many physicians have tested aldosterone levels in individuals with hearing loss (most of them "older"), and a significant number turned out to have low or "low normal" measurements. But after taking bio-identical aldosterone in "physiologic" quantities—amounts that would normally be present in adult human bodies—more than half of these individuals have regained a significant proportion of their "lost" hearing.

There are two surprising aspects of bio-identical aldosterone treatment for hearing loss. First, when it works, it works relatively rapidly, restoring a significant degree of hearing within the first two months. In fact, some people have literally heard improvement within just two to three weeks.

The other thing that's surprising about aldosterone therapy is that it's capable of restoring a significant degree of hearing even years after the hearing loss initially occurred. So far, one of the longest intervals was in an 87-year-old man who'd lost his hearing 13 years prior to regaining a significant degree of it using aldosterone.

Few have had any adverse effects from aldosterone therapy, likely because the use of bio-identical, physiologic-dose aldosterone restores levels to those that would be found in the body anyway.

This treatment is mainly focused on individuals with hearing loss and low or low-normal aldosterone levels, but there is one individual—an M.D.—who decided to try this approach for his hearing loss even though his aldosterone levels were quite normal. His hearing did improve, but unless you too are an M.D., D.O., or N.D. who can prescribe bio-identical aldosterone and order lab tests for sodium and potassium (sodium and potassium regulation are two of aldosterone's major responsibilities), please don't take aldosterone, bio-identical or not, if your measured levels are perfectly normal!

Beat the top 3 causes of blindness— without patent medicine or surgery

Glaucoma, macular degeneration, and cataracts are three very common causes of vision loss—if they're left untreated, that is.

But many cases of these three sight-stealing conditions can be treated by natural means, often avoiding patent medicines and/or surgery entirely. Even better, it's also possible to significantly reduce your risk of developing any of these problems in the first place.

The vision-robbing disease that's actually a symptom in many cases

Let's start with glaucoma. This condition occurs when the pressure inside the eyeball (intra-ocular pressure) rises. If the intra-ocular pressure rises high enough, it can cause blindness. Conventional treatment of glaucoma uses either patent medications (generally called miotics) or surgery to relieve the excess pressure.

But in 1937, Emanuel Josephson, M.D., an ophthalmologist in New York City, published a book titled *Glaucoma and its Medical Treatment with Cortin*. In it, Dr. Josephson reported many cases of individuals whose glaucoma and high intra-ocular pressure improved after treatment with a substance called cortin. Cortin was the 1930s name for entirely natural injectable extracts from animal adrenal cortex—the part of the adrenal glands which make cortisol, cortisone, DHEA, aldosterone, and all other natural adrenal steroid molecules in natural balance with each other. (Later on, Cortin was renamed Adrenal Cortical Extract, or ACE.)

Some of the improvements Dr. Josephson related were quite dramatic, with the patients' intra-ocular pressure dropping over 20 points to within the normal range. Dr. Josephson carefully explained that Cortin produced such impressive results because many cases of glaucoma don't actually originate in the eye, but instead manifest in the eye as a symptom of weak adrenal glands. In other words, Dr. Josephson discovered that, in many cases, glaucoma is a symptom, not an “independent disease.”

Injections of Cortin (which was literally “hormone replacement therapy” for weak adrenal glands) would allow the eyes—which apparently depend on normal adrenal function—to normalize themselves in many cases. In fact, Cortin even helped alleviate high intra-ocular pressure in people who hadn’t responded to miotics or surgery.

At the time Dr. Josephson was using it in his patients, Cortin was sold by major patent medication companies, including Parke-Davis. While they couldn’t patent the extracts themselves (since they were 100 percent natural) patent medicine companies could patent—and make enormous profits from—the extraction process.

Unfortunately, though, in the late 1940s and early 1950s, patent medicine companies discovered ways to make totally unnatural but very powerful and patentable (and therefore much more profitable) versions of cortisone and cortisol. Even though these space-alien versions have an incredible list of adverse effects when used in human bodies—including diabetes, osteoporosis, high blood pressure, cataracts, and stomach ulcers—the patent medicine industry was so successful in blurring the lines between them and bio-identical cortisone and cortisol (which never have these sorts of adverse effects when used in “physiologic” quantities) that they’ve become the go-to choice for most mainstream physicians. A more recent example of this type of “blurring the lines” is the inability of the FDA, conventional medicine, and patent medicine companies to distinguish between Premarin and other patentable pseudo-estrogens and bio-identical estrogens. And just like the current situation with bio-identical HRT, the Feds used this line-blurring to outlaw Cortin/ACE in the 1970s.

They claimed that it should be banned because, unlike the synthetic version, ACE was “unapproved,” and therefore potentially “dangerous”—even though it had been sold and in use for decades with no reported side effects. In an accompanying illogical leap of FDA “logic,” after terming ACE “dangerous,” they also stated it was “ineffective.”

But it has resulted in tremendous success for normalizing glaucoma. Several individuals had decreases in intra-ocular pressure from well above 20 (normal is under 20) to below 20 following a series of intravenous in-

jections of ACE. Many other physicians practicing natural medicine had seen similar results and have protested to the FDA. Unfortunately, the public didn't get involved, and side-effect-free ACE remains illegal today.

However, individuals with glaucoma can still improve and even normalize their intra-ocular pressure by using more general techniques to improve their adrenal function. The very best place to start is with your diet, eliminating all refined sugar and refined carbs and making sure to get adequate amounts of salt.

There are also a number of supplements that can help boost adrenal function, including the sodium ascorbate form of vitamin C, pantothenic acid, chromium, vitamins A and E, and ginseng. Another relatively subtle but powerful technique for strengthening weak adrenal glands is “cell therapy” using fetal animal adrenal cells with other related fetal endocrine cells. For even more information on strengthening weak adrenal glands, check your local library for the book *Adrenal Fatigue* by James Wilson, N.D., Ph.D.

As you've likely guessed, adrenal-strengthening treatment is most likely to be successful treating glaucoma in people who have weak adrenal function. The 24-hour urine test for natural steroids and other hormones can help you and your physician make an official diagnosis, but symptoms of weak adrenal function include lower-than-average blood pressure (especially if the “top”—systolic—number is consistently below 110), dizzy spells when standing up rapidly, and being easily tired out. Being underweight for your particular height and difficulty gaining weight are also common with weak adrenal function, but are not always present.

If you have any or all of these symptoms, check with a physician skilled and knowledgeable in natural and nutritional medicine, as well as bio-identical hormone replacement.

If weak adrenals aren't at the root of your glaucoma, there are still a few other nutritional and natural therapies that may be able to help reverse it. Eliminating any food allergies you might have is a good first step. Research has also shown that daily use of fish oil (I recommend 1 tablespoonful daily) and high quantities of vitamin C (10 to 35 grams daily,

split into three to four doses) can help reduce high intra-ocular pressure. Thyroid hormone also lowers intra-ocular pressure in some cases.

And both magnesium (250 milligrams daily) and standardized extracts of ginkgo biloba (40 milligrams three times daily) have been found to improve visual field defects for individuals with glaucoma.

The macular degeneration treatment that starts in your stomach

Just as Dr. Josephson found that many cases of glaucoma don't originate in the eye, but elsewhere in the body, many—if not most—cases of “dry” macular degeneration are “symptoms” of digestive malfunction, specifically poor digestion and assimilation of nutrients. So if you're starting to have vision problems, I encourage you to have your digestive function tested. If it's not operating up to par, correcting it (naturally, of course) will go a long way in helping you get the most from the nutrients that have vision-improving potential.

The most useful of those nutrients are lutein and zeaxanthin, which are found in highest concentrations in spinach, collard greens, and other deep green leafy vegetables. Other important nutrients include zinc (found in oysters, fish and other animal protein), selenium (two to four Brazil nuts a day are an excellent source), riboflavin (which comes from brewer's yeast, almonds, mushrooms, wheat bran, and dark green leafy vegetables), taurine (found in organ meats, fish, and other animal protein), and quercetin (good sources include onions, apples, kale, cherries, grapes, red cabbage, and green beans are all good sources). Bilberry and ginkgo are the best vision-supporting herbs.

I encourage anyone with macular degeneration to consider using Ocudyne II capsules (formulated by my colleague Alan R. Gaby M.D. and me), which contain all the nutrients noted above.

Clearing up cataracts, naturally

Another option for treating cataracts is a combination of Chinese botanicals called “Hachimi-jio-gan,” or Ba-wei-wan. This treatment has

been used for centuries in China to treat cataracts, and even has a bit of clinical evidence to support it: In a human study of early cataracts conducted in Japan, Hachimi-jio-gan was associated with lessening of cataracts in 60 percent of the volunteers. In the USA, Hachimi-jio-gan is available as a (much easier to pronounce) formula called Clinical Nutrients for the Eyes, which is available from natural food stores and compounding pharmacies.

Rounding out the natural treatment options for cataracts is a single, simple nutrient: Vitamin A. Decades ago, an honest ophthalmologist with a sense of humor wrote a letter-to-the-Editor of a medical journal “complaining” that his income from cataract surgery had gone down by over 2/3 since he started recommending vitamin A to all his patients with any degree of cataract at all. I recommend 30,000 IU of vitamin A (not beta-carotene) for anyone who wants to prevent or treat cataracts. In fact, the only people who shouldn’t use this amount are very small children (who don’t get cataracts anyway) and pregnant women.

And while we’re on the topic of cataract prevention, one of the most important things you can do is eliminate all sources of sugar and refined carbohydrates from your diet! Researchers have found that part of the cause of cataracts is the lens of the eye trying to “help” the body lower high blood sugar by “packing it away” within the lens, which gradually obscures the vision. This explains why individuals with type 2 diabetes have a much greater incidence of cataracts than people with normal blood sugar levels. So even though not eating sugar and refined carbohydrates is better for everyone’s health, it’s especially important for cataract prevention if you have diabetes—type 2 or type 1—in your family. Eliminating all sources of the milk sugar lactose (milk, ice cream, cottage cheese, and many soft cheeses) will reduce your risk of cataracts, too.

In addition to eliminating refined sugar and carbohydrates, you may also want to consider incorporating some cataract-preventing nutrients (other than just vitamin A) into your daily supplement regimen. Riboflavin, vitamin C, quercetin, zinc, and carotenoids have all been associated with cataract risk reduction. And one study found that people with

higher serum vitamin E levels had 50 percent less risk of developing cataracts than people with lower levels. (When you're supplementing with vitamin E, remember to use mixed tocopherols, not just alpha-tocopherol.)

As a side note, patent-medicine “cortisone” preparations that are prescribed to suppress symptoms of asthma, severe allergies, rheumatoid arthritis, and other more severe inflammatory conditions always increase cataract risk. So if you're using prescription patent-medicine “cortisone,” check with a physician skilled and knowledgeable in nutritional and natural medicine for effective alternatives.

Your guide for beating cognitive decline (a.k.a “keeping your marbles”)

According to health authorities, Alzheimer's disease is slated to become the next epidemic. In fact, current estimates state that nearly half of people over the age of 85 have Alzheimer's, whether it's obvious or not. There are non-Alzheimer's forms of dementia, too, most notably “multi-infarct” dementia, which is thought to be caused by a series of small strokes, and mild cognitive decline, which likely has many causes that have yet to be identified.

The best way to combat any and all of these cognitive problems is to prevent them from occurring in the first place. You keep reading about it over and over again, but an excellent diet is truly the most important aspect of preventing most—if not all—health problems, including cognitive decline. In fact, more and more research is being reported linking blood sugar problems (such as diabetes) and potential blood sugar problems (such as metabolic syndrome and insulin resistance) with a higher risk of Alzheimer's disease. So here we go again: Eliminate the sugar and refined carbohydrates! Make sure to eat several non-starchy vegetables and a wide array of colorful vegetables every day, too. (You want a varied palette on your plate because each color signals a different and necessary-to-good-health group of nutrients.)

It's also a good idea to “eat organic” as much as possible, since organically raised foods have significantly more minerals and vitamins than

commercially grown varieties, not to mention a much lower risk of being contaminated with pesticides, herbicides, and miscellaneous non-food chemical additives.

When you can, I encourage you to even go beyond organic produce and also opt for organic, free-range meat and poultry as well. The essential fatty acid ratio in free-range protein is anti-inflammatory, while the essential fatty acid ratio found in grain-fed animal protein actually promotes inflammation, and inflammation is also being implicated more and more as raising the risk of Alzheimer's and other cognitive malfunction.

Along these same lines, one of the best “brain foods” you can eat is fish. (Low-mercury fish, that is.) Not only are the omega-3 fatty acids in fish anti-inflammatory, but they're also essential components of the membranes of every brain cell we have. And since our bodies can't make them on their own, it's critical to get enough omega-3s and other essential fatty acids from supplements (like cod liver oil) and foods (like free-range meat and fish).

Phospholipids are another key component of brain cells. While our bodies can make them, as with many other things (co-enzyme Q10 and glutathione are two prominent examples) our bodies make less and less with age. Eggs—specifically the yolks—are excellent sources of phospholipids, as is the lecithin found in soy. Supplemental lecithin—another good source of phospholipids—is available in any natural food store and is an excellent idea for anyone over 40.

Boost your brain—and your sex life

Despite the common belief that testosterone is mostly for sexual function, it's most important job is maintaining cognitive function. The sex part is important, no doubt, but who cares about sex if you can't remember who you're with or what you're doing with her?

Unfortunately, thanks to this misunderstanding, word hasn't gotten around that—just like estrogen replacement for women—bio-identical testosterone replacement for men is extremely important for significantly

reducing the risk of Alzheimer's disease and cognitive decline. Here are just a few of the highlights:

- Higher serum estrogen levels in women in their 60s are directly correlated with lower incidence of Alzheimer's in those same women decades later. (And the reverse is true too: Lower estrogens equal higher incidence of Alzheimer's in later years.)
- The 15-year Princeton men's study determined that men who had higher serum free testosterone in 1983 had less risk of Alzheimer's disease in 1998. (Once again, the reverse was also true: Lower serum free testosterone corresponded with higher risk of Alzheimer's.)
- Researchers observing neurons found substantially less accumulation of beta-amyloid, neurofibrillary tangle, tau protein, and other "neuronal garbage" associated with Alzheimer's when those neurons were exposed to "physiologic quantities" of either estrogen or testosterone (depending on whether the neuron was from a woman or a man).
- In numerous controlled experiments, elderly men without Alzheimer's disease do better on tests of cognitive function when given testosterone than men given placebo.
- Testosterone for men and estrogen (that's real, bio-identical estrogen—not horse estrogen) for women is very protective for the entire cardiovascular system, including the blood supply to the brain. (Remember that cognitive decline due to repeated small strokes?)

The bottom line is, if you want to "keep your marbles" for as long as you live, consider bio-identical hormone replacement when it's appropriate for you. Just make sure to be working with a physician who is skilled and knowledgeable in all aspects of this therapy. If you're not sure if your doctor is, one way to find out is to ask the physician's office whether they do routine monitoring of therapy with the 24-hour urine steroid determination. This test is the very best way to check not only the levels of the bio-identical hormones being replaced but also their metabolization

(the natural transformation of the starting hormones into pro- and anti-carcinogenic metabolites). Blood and/or saliva testing just doesn't cut it when it comes to bio-identical HRT.

Small dose, big protection

No matter what neurotoxin your brain is exposed to, lithium protects against it.

Not only that, but lithium actually promotes the growth of new brain cells, even in individuals past age 50. So far, no other nutrient has been found to do that.

Yes, high-dose prescription lithium can be toxic, but low quantities like the ones used for boosting cognitive function and protecting brain cells (20 milligrams daily and under) are not associated with toxicity. It's very rare to have a negative reaction to low-dose lithium. Some people have claimed experiencing a slight tremor, but it went away when the lithium was discontinued. On the flip side of that same coin, it's much more common to report improvement in benign tumors with the use of low-dose lithium.

Even though risk of toxicity from low-dose lithium is very small, I always recommend working with a physician skilled and knowledgeable in nutritional and natural medicine if you decide to supplement with lithium. And to be on the extra-cautious side, it's important to use supplemental essential fatty acids when using even low-quantity lithium supplements. Essential fatty acids are the primary treatment for toxicity caused by high-dose prescription lithium, so using them in conjunction with low-dose treatment helps avoid that possibility altogether.

Spicing up your brain-boosting regimen

There are many, many more supplemental items that can help you maintain cognitive function, but we're quickly running out of space, so I'll just mention two more: Curcumin and Ginkgo.

Although no one is entirely sure how it works, the research on curcumin's ability to protect against Alzheimer's (as well as its many other

beneficial effects) has been more than a little exciting. Areas of the world in which the spice turmeric (which has a high concentration of curcumin) is routinely used have very little—if any—Alzheimer's compared with areas that don't. Perhaps the best aspect of curcumin is that you don't need to take yet another pill to get its brain-boosting benefits. Just use turmeric in your cooking, perhaps an average of 1/4 to 1/2 teaspoonful daily. (For those of you who just can't stand the taste of turmeric, it is available in capsules, too. If you're using it for long-term cognitive maintenance, consider taking two 200-milligram capsules a day.)

Ginkgo has been used for the brain for thousands of years, and (like lithium) has been found to be neuroprotective.

We all know that none of us will live forever, but there's no reason not to live as long as our "genetic programs" will allow—and keep all of our faculties while we're here. If you can do all of the things outlined above (or at least come close), you'll have a much better chance of living as long as your oldest known relative, getting to know your great-grandchildren, and hearing, seeing, enjoying, and remembering those years of life so much better!

Chapter 8:

The secret to halting hearing loss: Start with your stomach

Evidence is accumulating that, like macular degeneration, age-related hearing loss is related to suboptimal digestion and assimilation. In a recent study, 55 women with inefficient hearing were shown to have low levels of vitamin B12 and folic acid. Based on this research, it is possible to say that improved levels of all micronutrients may well prevent age-related hearing loss. And the best way to do that is to improve your digestive function. (One common symptom of poor digestive function is cracking, peeling, and chipping fingernails.)

First, have your digestion tested. A doctor from the American College for Advancement in Medicine can help you with that. If problems exist, improving the stomach's digestive function with the "digestive replacement therapy" of betaine hydrochloride-pepsin or glutamic-acid hydrochloride-pepsin will help many health problems by improving the available supply of essential nutrients.

If hydrochloric acid treatment is recommended for you, start by taking one capsule (5, 7 1/2, or 10 grains) of either betaine hydrochloride-pepsin or glutamic-acid hydrochloride just before each meal. After two or three

days, if you don't have any problems, take two capsules before meals, then three capsules another two or three days later. Gradually increase your dose in this stepwise fashion until you get to 40 to 90 grains per meal.

Treatment with hydrochloric acid can be dangerous and should only be used when testing indicates a need. If this is the case for you, the treatment process should be carefully monitored by a physician.

Once your digestion has improved, you'll be able to absorb vitamin B12 and folic acid much more efficiently. Take 800 micrograms of each per day.

Chapter 9:

Alzheimer's disease: New hope for a “hopeless” situation

As you know, there's very little available for Alzheimer's patients (and their families) that can offer even partial relief from the turmoil this disease causes. So when new treatments are developed or discovered, it's usually big news—a ray of hope for people stuck in a seemingly hopeless situation. One of these newly developed treatments, called Memantine, was recently approved in Europe. Apparently, it “works” by protecting brain cells against damage caused by a major excitotoxin, glutamate. But protecting against glutamate-induced nerve cell damage is also one of the well-known actions of lithium. So if it's true that this newly approved patent medication slows the progress of Alzheimer's disease in this way, then lithium should slow Alzheimer's disease progression, too. Of course, lithium treatment, which isn't patentable and doesn't have nearly the profit potential of patented Alzheimer's medications, hasn't made any headlines. But that doesn't mean it isn't a promising option for patients struggling with Alzheimer's disease.

There are many other research findings that also strongly suggest that lithium will protect against potential Alzheimer's disease and slow the progression of existing cases. Researchers have reported that lithium in-

hibits beta-amyloid secretion, and also prevents damage caused by beta-amyloid protein once it's been formed. Beta-amyloid peptide is a signature protein involved in Alzheimer's disease: The more beta-amyloid protein, the worse the Alzheimer's becomes.

Over-activation of a brain cell protein, called tau protein, also contributes to neuronal degeneration in Alzheimer's disease, as does the formation of neurofibrillary tangles. Lithium inhibits both of these nerve cell damaging problems.

And you've likely read that individuals with Alzheimer's disease usually have excess aluminum accumulation in brain cells. While it's not yet known whether this excess aluminum is a cause, an effect, or just coincidental, most health-conscious individuals take precautions to avoid ingesting aluminum. Unfortunately, it's impossible to completely avoid all aluminum, since it's naturally present in nearly all foods. But lithium can help protect your brain against aluminum by helping to "chelate" it so that it can be more easily removed from the body.

Although Alzheimer's disease and senile dementia aren't technically the same, they do share many of the same degenerative features so there's every reason to expect that lithium will help prevent or slow the progression of senile dementia, too.

For general brain anti-aging, I recommend taking 10 to 20 milligrams of lithium (from lithium aspartate or lithium orotate) daily. In cases of Alzheimer's, though, you might need higher doses of lithium. High-dose lithium (capsules containing approximately 30 milligrams of lithium from lithium carbonate) is available only by prescription. But low-dose lithium (capsules or tablets containing 5 milligrams of lithium from lithium aspartate or lithium orotate) is available from a few natural food stores and compounding pharmacies.

To be on the safe side, I always recommend that anyone taking lithium also take a teaspoonful or two of flaxseed oil (or other essential fatty acid), along with 400 IU vitamin E each day.

When you hear the word “homocysteine,” chances are you immediately think of heart disease. While too much of this substance does contribute to cardiovascular disease, elevated levels also increase your risk of Alzheimer’s disease. However, it’s not clear whether homocysteine has a direct effect on brain cells or whether the extra Alzheimer’s risk is due to homocysteine’s effect on blood vessels that serve the brain.

But even though no one knows for sure whether added folate helps prevent Alzheimer’s by directly helping maintain brain cells or by reducing blood vessel damage, the net effect is the same: Adequate folate can help reduce your risk of Alzheimer’s disease.

This brain-protecting effect extends to everyday cognitive function too. The term “cognitive function” includes not only memory, but also many other measures of abstract thought, including verbal and mathematical reasoning, test performance, and general alertness. Many research groups have reported associations between folate insufficiency and poor cognitive performance. So getting enough folate will help keep you thinking clear well into your golden years.

So how much folate should you take? As much as you need! Folate requirements vary from none at all in people who get a sufficient supply from their food to 20-30 milligrams daily. Fortunately, there’s a simple, inexpensive, and highly accurate test you can take to determine just how much you need.

Instead of blood or urine screens, it’s preferable to measure folate levels using something called a functional test, which is individualized to you. This type of test measures a function that depends on a certain nutrient. Your specific numerical reading or level of that nutrient doesn’t really matter. What does matter is whether you personally have enough of that nutrient to keep the chosen parameter functioning optimally.

Along with the cells that line your intestinal tract, blood cells are the most rapidly dividing cells in your body, constantly duplicating DNA to make brand-new cells. So this is the function that seems to work best to

measure folate adequacy. Specifically, you look at neutrophils, which are a certain type of white blood cell. The “neutrophilic hypersegmentation index” tells us what percentage of neutrophils had too little folic acid to properly duplicate their DNA. Obviously, 0 percent is best, since you want all of your rapidly dividing cells to be supplied with enough folic acid to properly duplicate.

Just about any laboratory with a microscope and an educated technician should be able to do this test. But, oddly enough, many labs don't. It requires a very small amount of blood smeared on a glass slide under a cover slip. The technician examines the slide for neutrophils, and reports what percentage of them are “hypersegmented” (lacking sufficient folate during the final stages of their development). The price should be \$25 to \$30.

If your test result is 0 percent, congratulate yourself! You've been eating enough folate in your food and/or taking enough to make sure that even your most rapidly dividing cells have all they need.

If you're close to 0, say 1-5 percent, you're still in pretty good shape. With just a little more folate-containing food or perhaps a little more folic acid supplement, you'll usually get to 0 percent quite easily.

If you're over 5 percent, it's time to make some changes. Don't fool yourself that 95 percent normal neutrophils is pretty darn good just because 95 percent got you an “A” in school. Think about what the number means in this context: 5 percent of your rapidly dividing cells don't have enough folate available. (Remember, it takes only one rapidly dividing cell that wasn't able to properly repair its own DNA to result in cancer. And even though an abnormal test result doesn't mean you have cancer, it does mean you have a slightly higher risk, as well as higher risk of dementia and Alzheimer's disease, not to mention all the other conditions folate helps to prevent.) So getting serious and reducing your risk is a very good idea, especially if your test result is 5 percent or greater.

Take a look at the list of folate-rich foods: Anything green, beans, nuts, wheat germ, liver (organically raised, of course), other organ meats,

oysters, salmon, and brewer's yeast. There must be at least one or more of these you can add to your menu more often.

If your test result is above 5 percent, you should also take a folic acid supplement—5 milligrams daily—until a repeat test shows a 0 percent result. Keep in mind that you'll need to be very patient: Since this test relies on examination of neutrophils, which have a life span of six to eight months each, the lab might not see much change until that long after you start supplementing.

If your test is 15-20 percent or above, and especially if you're over 55, it's a good idea to increase your folic acid supplement to 5 milligrams, two to three times daily, once again until your test drops to 0 percent.

If your test doesn't improve at all, or even gets worse after six to eight months, you may have run into a folate absorption problem that you'll need a physician's help to overcome. Nearly every other nutrient is absorbed better if your body needs it; improved iron absorption during iron deficiency is one of the best-known examples. But folate absorption is the opposite; there's a "threshold" level of folate deficiency beyond which folate is less and less well absorbed until it's hardly absorbed at all—sometimes even in huge oral quantities. This threshold varies from person to person, so the only way to know if you've crossed the "no folate absorption threshold" is to try to improve your results, and see if they actually do get better over time.

If they don't, you have two options: Those "huge" oral doses—100 milligrams daily or more—or injections. Even though folic acid injections are very safe, you still need a prescription, not only for the folic acid, but, in many states, for the needles and syringes as well. (And if you don't already know how, you'll need to learn self-injection.) If you go the injection route, you should use 2.5 to 5 milligrams of folic acid twice weekly for six to eight months.

If you're going to take the trouble to inject folic acid, talk to your doctor about adding vitamin B12—1,000 micrograms daily—to the

injection, since folic acid and vitamin B12 are almost always found together in biochemical reactions in your body.

If you opt to try large oral quantities of folic acid, be sure to also take at least 30 milligrams of zinc (preferably zinc picolinate or zinc citrate, with 2 milligrams of copper) at a different time of day. There's some suspicion that taking large oral quantities of folic acid over a long time might cause a zinc deficiency.

One other precaution: If you are on any type of anti-seizure medication at all, don't take more than 1 milligram of folic acid daily—even if your test shows you're deficient unless you're working with a physician skilled and knowledgeable in nutritional and natural medicine!

It's not recommended to take the 400- or 800-microgram daily dose of folic acid. All too frequently, they don't work, leaving the test results just as bad as ever after six to eight months of supplementation. Yet folic acid supplements in quantities of greater than 800 micrograms are hard to find due to FDA guidelines.

Check your natural food store or compounding pharmacy, for 5- and 20-milligram capsules, or bottles of folic acid liquid, which contain 2 milligrams per drop. These will help put you on the right track much faster than “regular” folic acid supplements.

PART X

**Essential
Health Secrets**

Chapter 1:

Vitamin K: What's it good for?

Have you ever seen a bottle of vitamin K supplements in your natural food store, pharmacy, or grocery store? Even though vitamin K is essential to life and quite safe in its natural forms, supplements of it are very hard to find. That's probably because the vast majority of us have only a vague idea about what the vitamin can do—so there's very little demand.

Most of us have heard that vitamin K has “something to do with blood clotting.” In fact, Drs. Henrik C.P. Dam (Denmark) and Edward A. Doisy (United States) were awarded the Nobel Prize in Medicine in 1943 for original research uncovering vitamin K's functions in blood clotting. Since then, however, research has shown numerous other benefits, ranging from tooth decay to anti-aging; you should consider what vitamin K can do for you.

Detecting a deficiency—signs are few

Each of us probably received just one deliberate “dosing” with vitamin K in our lifetimes, and that was shortly after birth to prevent “hemorrhagic disease” of the newborn. Since then, we've absorbed small amounts of vitamin K from our diets and elsewhere, but accumulating research says that for many of us, relying on dietary sources may not be enough.

Severe vitamin K deficiency causes uncontrollable bleeding, but mild to moderate degrees of such a deficiency don't ordinarily cause obvious problems. There are two physical signs that indicate you might need vitamin K supplementation.

The first is easy bruising. While this can also be due to a lack of flavonoids (which help keep small blood vessels strong), it's definitely safe and worth a try to use supplemental vitamin K (5 to 10 milligrams daily) to try to stop the problem. After six to eight weeks, it should be possible to tell whether vitamin K is helpful or not.

The second physical sign concerns women only. Many women have told me over the years that supplemental vitamin K totally eliminates menstrual clots, whether the clots are large and painful or only small and negligible. Usually 5 to 15 milligrams daily will be enough to eliminate this clotting within two to three monthly cycles.

Although I'm aware of only these few physical signs of vitamin K deficiency, it's quite possible that one or more of the conditions that follow are (at least in part) also signs of insufficiency for the individuals involved.

Fight tooth decay naturally

In 1948, Leonard Fosdick, Ph.D., of the Northwestern University School of Dentistry published research demonstrating that Vitamin K could prevent tooth decay.¹ He had prepared chewing gum with and without vitamin K and asked an experimental group to chew the vitamin K gum after each meal. A carefully selected control group chewed gum without vitamin K. Dr. Fosdick reported: "It was found that the experimental group produced 60 percent to 90 percent fewer carious lesions than did similar control patients."

Dr. Fosdick's report was the eighth in a series starting in 1936. This series of publications carefully traced one major cause of dental caries to decalcification of tooth enamel and dentine by acid. He found that the decalcifying acids were produced by anaerobic metabolism (fermentation) of simple sugars and, to a small degree, starches.

In a 1942 publication, Dr. Fosdick pointed out that the enzymes involved in this acid production could be inhibited by silver nitrate, fluoride, and vitamin K.² (If the acid-producing enzymes could be inhibited, he claimed, the reduction in acid production would be accompanied by less caries, as his subsequent 1948 research paper demonstrated.) Dr. Fosdick comments on these three methods:

- **Silver nitrate:** “The application of silver nitrate by dentists is another good example of the use of an enzyme poison. The main difficulty with this procedure is that it discolors the teeth. Nevertheless, there is widespread use of this method with more or less favorable results.”
- **Fluoride:** “Fluorides were one of the first-known inhibitors of the enzyme system necessary for acid production. In all probability, the application of this method of caries control may be quite successful. *However, it is extremely hazardous to contaminate the drinking water of a large portion of our population without having more complete information concerning the toxic and obscure effects of long-continued ingestion of the fluoride ion.*” [Editorial emphasis added for obvious reasons.]
- **Vitamin K:** “Another substance that interferes with the [acid-forming] enzyme system is 2-methyl-1,4-naphthoquinone [menadione, or vitamin K3], with certain derivatives. These substances seem to interfere with the enzyme system at one of the initial stages of the series of chemical reactions involved in the formation of acids. *On this basis, it would be equal to or superior to the fluoride ion. Furthermore, preliminary experiments indicate that this material has a toxicity far less than that of the fluoride ion and may be ingested over long periods of time with no untoward result.*” [Emphasis again added for the same obvious reasons.]

Nausea and vomiting during pregnancy

Vitamin K (5 milligrams) and vitamin C (500 milligrams) taken simultaneously are a very effective but little-known treatment for nausea and vomiting during pregnancy.

As reported by Richard J. Merkel, M.D., 64 of 70 women (91 percent) who experienced nausea and vomiting during pregnancy were completely relieved of all symptoms within three days by simultaneous administration of vitamin K and vitamin C.³ (Dr. Merkel actually used only 25 milligrams of vitamin C with 5 milligrams of vitamin K, but these small doses are no longer available.) Three of Dr. Merkel's patients were relieved of vomiting but not nausea, and only three (4.5 percent) were not helped at all. In "an advanced case of hyperemesis gravidarum (hyper-vomiting of pregnancy) in the second trimester and a case of pseudocyesis (pseudo-pregnancy), this medication appeared to be dramatically beneficial when other means of treatment had failed." Dr. Merkel carefully noted that "in all cases the prothrombin time (a standard measure of vitamin K deficiency) and bleeding time were normal before and after medication." He found that using vitamin K or vitamin C alone failed to give relief.

In his research, Dr. Merkel used menadione, the synthetic water-soluble form of vitamin K, which is safe in small doses. This water-soluble form doesn't require any digestive aid. Phylloquinone works nearly as well, especially if taken with a high-lipase digestive enzyme containing just a small amount of bile salts (often found in the pill with the enzyme). Phylloquinone and vitamin C are also available for (simultaneous) injection and work well that way.

Chronic pain

In 1955, researchers in Sarajevo reported on the effects of vitamin K injections on pain.⁴ They first determined that (in mice) vitamin K was more effective than morphine in its *thermoanalgesic* properties (relief of pain from burns). Then, they gave vitamin K injections to 115 individuals with chronic pain (due to terminal cancer) controllable only with morphine. Ninety-five of the 115 were able to eliminate morphine and rely on the vitamin K injections for pain relief.

Reversing soft bones and hard arteries

It's been known for years that Vitamin K is important to healthy bones. It is essential to the final step in the activation of *osteocalcin*, a

protein essential to normally calcifying bones. Women with fractured hips have been shown to have significantly lower vitamin K levels than women without fractures.⁵ A study of 16 individuals with osteoporosis found that serum vitamin K levels were only 35 percent of vitamin K levels in a non-osteoporotic group of the same age.⁶

Many have observed decreases in urinary calcium loss (as well as decreases in bone peptide loss) in women after they started taking vitamin K; lessening of urinary calcium excretion in women after menopause has also been reported by researchers.^{7,8} The vitamin is also of major importance in healing fractures;⁹ Many non-healing fractures have recovered completely once vitamin K treatment was started.

But isn't it interesting that while vitamin K can help put calcium back where it belongs, into bones, it may simultaneously prevent calcium from depositing in arteries where it *doesn't* belong? Japanese researchers reported that vitamin K2 had exactly this effect in studies involving experimental animals.¹⁰ Dutch researchers found that a group of 113 postmenopausal women with calcification of the aorta had reduced vitamin K levels. In a follow-up study, the same researchers reported that postmenopausal women with aortic calcification also had a significantly lower bone mass.¹¹

Although this evidence can't be called at all conclusive, it certainly suggests the possibility that a major function (perhaps the main function) of vitamin K may be to keep calcium "in all the right places" and at the same time to prevent it from getting into the "wrong" ones. Vitamin K is *the* vitamin necessary to attach gamma-carboxyglutamic acid (an amino acid) to proteins. This attachment enables proteins to "grab, hold, and manipulate" calcium. Without vitamin K, this process doesn't work optimally.

Is vitamin K an anti-aging vitamin?

It's relatively well-known that as part of the aging process, calcium "leaks" from the bloodstream through cell membranes into the interior of cells, where (in excess) it interferes with the optimal functioning

of intracellular metabolism. If vitamin K could somehow help reverse this process, by keeping calcium from leaking into the wrong places, it would be a major anti-aging nutrient. Terri Mitchell, a contributor to *Life Extension* magazine, has just written an excellent general review of vitamin K in which the anti-aging question is addressed.¹² Much more research is needed in this area.

Where to start and what to look for

As with most supplements, the first place to supplement with vitamin K is in our daily diet. The best sources of dietary vitamin K are green vegetables, especially kale (817 ppm, or parts per million); spinach (400 ppm); endive (231 ppm); broccoli (205 ppm); Brussels sprouts (177 ppm); cabbage (147 ppm); and lettuce (122 ppm). Soybean oil and canola oil (193 and 141 ppm) contain the largest amounts *not* found in green vegetables, with olive oil a distant third (49 ppm). Whole soybeans contain 47 ppm and avocados 40 ppm, but in general, grains, meats, fish, fruits, nuts, seeds, oils, and non-green vegetables (corn, beets, carrots, potatoes, tomatoes, etc.) contain very little vitamin K.

The natural, plant-synthesized dietary source of vitamin K is called *phylloquinone*, though it's still frequently referred to as vitamin K1. Intestinal bacteria (including normal *E. coli* and *Bacteroides* species) also synthesize various forms of vitamin K, previously termed (as a group) vitamin K2 but now generally called menaquinones. Menadione, an entirely synthetic molecule with vitamin K activity, was developed in the 1940s and called (at the time) vitamin K3.

There's usually much more of the menaquinones (vitamin K2) than phylloquinone (vitamin K1) found in our livers. Despite this, phylloquinone is the major active form of vitamin K used by our bodies—the menaquinones are not used as effectively. Menadione, being a synthetic molecule, is not normally found in our bodies except when deliberately supplemented.

Both phylloquinone and the menaquinones are fat-soluble and absorbed along with other dietary fats. Menadione (vitamin K3) is water-

soluble. Phylloquinone has no known toxic effect; high doses of menadione, however, on rare occasions has caused hemolytic anemia (easily breaking blood cells) and liver toxicity. For this reason, menadione is not usually used when treating small children.

At present, supplemental sources of vitamin K are a bit hard to find. For many years, Standard Process Laboratories has made available *Chlorophyll Complex*, an all-natural plant concentrate containing a useful amount (1.1 milligrams) of vitamin K per capsule. *Vitamin K Drops* (2 milligrams per drop) are available from Scientific Botanicals. Very recently, the Life Extension Foundation (800)544-4440, www.lef.org, has made available *Super K* (10 milligrams per softgel).

Knowing what to take

Do we really need to take a vitamin K supplement? If there's a family history of osteoporosis, definitely. There's also enough preliminary evidence to say that if there's a family history of arteriosclerosis ("hardening of the arteries"), you probably should. And of course, there are the other applications that we discussed.

How much supplemental vitamin K should you take? Fortunately, vitamins K1 and K2 are very safe; only K3 (as noted above) in enormous doses has caused problems. Except in special circumstances, 5 to 15 milligrams daily appears to be sufficient.

Caution: Vitamin K can "interfere" with the function of the drug Coumadin (an anticoagulant). (Actually, the drug Coumadin seriously interferes with the function of vitamin K, thus preventing normal blood clotting...and may cause any or all vitamin K deficiency problems, both short- and long-term...but that's a topic for another time.) **If you're taking Coumadin, DON'T take vitamin K!** It's wiser to check with a physician skilled and knowledgeable in nutritional and natural medicine to discuss alternatives to Coumadin first.

Chapter 2:

Hidden heavy metal exposure could be killing you!

Lead paint poisoning isn't something we think about much these days. After all, lead was removed from gasoline and paint way back in 1978. But lead was recently thrust back into the headlines when we learned that Freddie Gray, who tragically died in Baltimore in April 2015, was repeatedly exposed to the heavy metal as a child.

Still lead poisoning isn't something most of us have to worry about anymore, right? It's been gone from our lives for more than 30 years now.

The truth is lead exposure is still an issue. In fact, if you were born before 1978, chances are YOU have entirely too much lead in your body right now. Let's take a look at how your own early life exposure may be impacting you.

A look at the link between lead and health

High levels of lead in the blood can harm developing brains and bodies leading to organ damage, decreased cognitive function, aggression and even death. A child who is poisoned by lead starts out life at a distinct disadvantage. But even when your own lead levels don't reach the sky high levels that are considered "poisoning" by today's mainstream

medicine standards, there can be very real consequences to lower levels of lead exposure over time.

You see, unlike conventional medicine doctors, holistic physicians recognize that simply being exposed to lead... as you surely were in your younger years, and may still be today... can have a dire impact on health, even if a victim isn't technically "poisoned" by mainstream medicine's standards.

That's because the lead is essentially ferreted away in many nooks and crannies throughout your body, but mostly in your bones. Meaning that every time that you exercise, or even walk, some of that lead is squirted into your bloodstream. And that can have tragic... and even deadly... consequences.

“Low” levels of lead kill

For example, a study published in the journal *Circulation* in 2006 revealed that even a blood lead level as “low” as between 3.6 and 10 micrograms per deciliter was associated with 25 percent higher risk of death from any cause, a 55 percent higher risk of death from cardiovascular disease, an 89 percent higher risk of death from heart attack and two and a half times the risk of death from stroke.

Another study, published in 2010, followed nearly 10,000 patients with slightly elevated lead levels when they were over 40 years old. Researchers found that having a lead level between 5 to 9 micrograms per deciliter was clearly associated with an increased risk of death from all causes, cardiovascular disease and cancer.

If you want to know what your own lead level is ask your physician for a blood lead test. If you have access to an integrative medicine physician, ask for a hair test or a urine provocation challenge to test for heavy metals.

Keep in mind that there shouldn't be ANY lead in your blood. So even if your count comes back within the so-called “normal range,” any number above zero should be seen as a potential problem. If this is the case talk with doctor about chelation and other strategies for bringing your number down to zero.

Chapter 3:

Test yourself for hidden food allergies just by checking your pulse and weight

One of the recommendations I make on a regular basis is to have thorough allergy testing done. Over the years, research has shown that hidden food allergies and sensitivities often play a major role in a person's overall health—determining them and eliminating or desensitizing to the trigger foods almost always results in a significant improvement. But I know the idea of allergy testing puts unpleasant visions of being poked and prodded for hours on end into many people's minds—not exactly an experience anyone would really be eager to have. If you've been hesitant to have clinical allergy screening done and want to be sure you really need it before you make an appointment, I have some good news: You might be able to do that just by taking your pulse.

Years ago, Dr. Arthur Coca popularized the “pulse test” for food allergy. He found that some (but definitely not all) allergic individuals have a significant increase in their resting pulse after eating a particular food allergen. Others have observed that eating certain trigger foods causes

them to retain fluids, which manifests as a significant weight gain that doesn't disappear by the next morning (like most water-weight gain).

These are observations you can make on your own, right at home. To get started, get yourself a notebook that you can use to record each day's measurements, and make sure you have an accurate bathroom scale. Weigh yourself each morning and evening for several days (a week if possible) and record those numbers in the notebook. During that same week, take your resting pulse just before—and again one hour after—your largest meal of the day (and if possible before and one hour after other meals too).

At the end of the week, take a look at your measurements: A person's pulse might increase as much as eight to 20 beats or more per minute after certain meals; it's also not unusual to see 2 to 6 pound (or more) weight gain in one day. And the added "weight" can persist for two or more days. If you notice that either situation occurred in your observations, it means that you do indeed have some form of food allergy. Once you've determined that you do have food allergies, then you should go ahead and make an appointment to have complete clinical testing done to determine what specific foods are causing problems for you. The American Academy for Environmental Medicine (AAEM) is a good resource for finding a doctor in your area who can help you with testing and even desensitization to your allergens.

Two cautions: While either a "positive" pulse or water weight test (or both) almost always signals food allergies, "negative" tests do not necessarily mean that you don't have them. Any body system can react to food allergy: Some allergies may affect your pulse or weight, while other allergies don't affect pulse or weight at all. Also, if you just happen not to eat any of the things to which you're allergic, your self-observation will be "negative." So if you have persistent health issues that don't seem to get better no matter what you do, you should still consider having thorough screening done even if you get a negative result on your self-test.

Chapter 4:

This toxic crud could be hiding in your home, attacking your brain and making you sick!

Have you ever had the feeling your home is making you ill? Do some of your most persistent symptoms—like fatigue, headaches, brain fog and frequent colds—seem to magically clear up when you're on vacation?

If you've ever had a suspicion that your house is causing some of your health issues... you're probably correct. And the most likely culprit for your misery is mold.

Mold is made up of living organisms, and all living organisms have the internal drive to grow and expand. They produce toxins both as protection, and as a means to weaken the environment around them making it easier for them to spread. Similar to a skunk's odor, nature has given mold a powerful tool that's necessary for its survival, but toxic to everyone around it.

I myself have been helping patients fight this formidable health-destroying opponent for the last decade now. I've even locked horns with toxic mold in my own personal battle.

In 2001 we had an addition put onto our house, with a master bedroom and bathroom on the second floor. My Parkinson's symptoms first surfaced in early 2005—and two years after that, we finally realized the bathroom shower had been installed incorrectly and had been leaking water into the walls.

When we opened the walls, to our horror we discovered that dreaded black mold had obviously been growing in them for years. I firmly believe that this insidious substance—and the toxins it produced—are responsible for triggering my illness.

And I've committed myself to helping patients better understand the risks of mold exposure and to heal them of mold-related sicknesses that may have gone undiagnosed for years.

The sickening fungus among us

Mold is the true definition of a hidden killer. It's growing unseen in walls, attics and basements. In fact an estimated 40 percent of all America households are contaminated with some form of fungus. And this is way more than just a little bit of mold in the bathtub that we're talking about here.

Mold toxins irritate your brain and central nervous system causing a myriad of seemingly unrelated symptoms including (but not limited to)...

- fatigue
- headaches
- twitching
- tremors
- brain fog
- muscle pains
- insomnia
- abdominal pain, and
- frequent illnesses or colds

While mold is not good for anyone, and some people are allergic to it, it can also cause severe symptoms in certain people with a specific genetic susceptibility. For these individuals, mold is incredibly toxic and continual mold exposure at home, work or school can cause severe neurological symptoms and even trigger devastating neurological diseases like my own Parkinson's.

Most people, many of my own patients included, believe that the mold in their homes is no big deal if it isn't the "black mold" variety. The truth is ALL mold is toxic regardless if it's green, brown or black. Some people are able to excrete the mold toxins once they're breathed in, and have little long-term consequences from their exposure. But those of us who are genetically handicapped can't rid our bodies of them, and the toxins continue to build up leading to those health shattering symptoms.

Unfortunately, most people who are genetically handicapped to be susceptible to mold toxins have no idea, and very few ever get a correct diagnosis even after their health is destroyed by the creeping crud. But the good news is that you don't have to remain in the dark. You can find out if you are genetically susceptible by having an Integrative Medicine practitioner run an HLA (human leukocyte antigen) genetic test which looks specifically at the HLA or immune response gene.

Toxic schools produce toxic kids

Most parents would be horrified to learn that their kids are in danger every day at school. Unfortunately many American schools are breeding grounds for toxic mold. School buildings are often old with water damage. Air conditioning typically gets switched off in the summer months, and the rising humidity levels in the sealed empty buildings produces the perfect environment for growing mold.

Countless kids are being exposed to these hidden molds and that exposure can have terrible consequences, including some children being misdiagnosed and treated for conditions they don't even have such as ADD and ADHD.

Simple tests for toxicity

If you're experiencing troubling symptoms and suspect mold toxicity may be to blame, there are several different blood tests that could help with a diagnosis. I routinely order these tests in my own office (as do many other toxin-literate doctors) and find that the results are consistently abnormal in patients who suffer from the persistent and disabling symptoms that are often linked with mold exposure.

Although the tests—which go by acronym-laden names including the VIP, MSH, C4a and TGFbeta 1 tests—can be ordered from major local labs such as Quest and LabCorp, many conventional medicine doctors will not be familiar with them. But if you can't find a mold literate physician in your area to order the tests for you, there's a vision test that you can take on your own computer that can help clue you in to whether mold toxins are at the root of your own health challenges.

In the genetically susceptible individual, the mold toxin irritates the central nervous system and one of the most sensitive parts of the central nervous system is a nerve that controls how your eyes distinguish between shades of grey, black and white. The VCS test (visual contrast sensitivity test), sometimes known as FACT (functional acuity contrast test), evaluates how well your eyes distinguish contrast (black vs. white and especially your night vision).

I can't tell you how many patients I've seen over the years with this condition that continuously complain to their eye doctors that their glasses or vision are "off," but are told that the vision is fine and their glasses don't need to be altered. It's these very same patients who fail horribly at the VCS test. The test (there's a small fee for the VCS), and a wealth of mold toxicity information, can be found on the website www.SurvivingMold.com. This site was set up by Dr. Ritchie Shoemaker, a pioneer in the field of mold toxicity.

And for further testing you can do yourself, Real Time Labs (www.RealTimeLab.com) and BioTrek Labs (www.BioTrekLabs.com) specialize in urinary testing for mold toxins.

Detecting mold in your home and in YOU

If you're unsure if there's mold in your home but you fail the VCS test or have other symptoms, then you should attempt some form of mold detection. The telltale sign that there's mold in your home is a musty smell, especially if the house has experienced moderate to significant flood or water damage.

The cheapest first step (but not totally 100 percent foolproof) is to get mold test kits from your local home improvement store such as Home Depot or Lowe's. Leave them for the required time in the areas of your home where you suspect there might be mold and where you spend the most time.

For a more scientific and complete examination, you might want to consider using a special mold DNA test called the ERMI (www.mycometrics.com). And it may be worth the investment to have a mold remediation specialist come to your home for an inspection, or even to hire a mold sniffing dog (I'm not kidding!) for a more thorough job.

If you're sure you have mold in your home, either from the results of testing or symptoms of mold toxicity, then you should start some form of mold remediation. I won't claim this is an easy task, but it's a necessary

Is MOLD the real curse of King Tut's tomb?

Mold has been lurking in our homes and making us sick for centuries. It's even been implicated in the Legend of King Tut.

When King Tut's tomb was discovered in 1923, some of the archaeologists that unearthed him died mysteriously shortly after the dig. The scientist's deaths were first blamed on the "ghost" of King Tut putting a curse on them. But it's now been theorized—and seems much more medically plausible—that the tomb was actually full of thousands of years of toxic mold that the unfortunate archeologists had direct and excessive exposure to.

one and well worth the effort to get rid of the fungal intrusion. The first steps, which you can do on your own, are cleansing away of any of the obvious mold (be sure to wear a breathing mask and avoid tackling black mold on your own), stopping any water leaks and de-humidification. Try to keep the house at 50 percent humidity. If your symptoms are severe and the mold issue in your home is a more serious case, you should consider employing the help of a mold remediation specialist.

Simple 3 step mold detox plan

Now that you're getting the mold out of your home it's time to think about getting the mold out of YOU. There are both nutraceutical and lifestyle changes that can rid your body of the mold toxins. In the genetically susceptible individual these toxins need some extra prodding to be fully excreted. Without this extra help the toxins will continuously recirculate, wreaking havoc on your central nervous system.

While some of my sickest patients need much more sophisticated and intense regimens, there are three steps that anyone can do on their own to help rid their body of these toxins.

Step 1: Purge toxins with binders—The most important part of the regimen is to use something that can “bind” with the toxin—sopping it up like a sponge so it can be shuttled it out of the body. My favorite “sponge” is edible bentonite clay (taken on an empty stomach), but you could also use any good source of fiber because of fiber's wonderful natural binding properties. For example, chlorella (a green sea vegetable in capsule or powdered form) is a good binder for neurotoxins. And activated charcoal tablets, available in most drug stores, can also be helpful.

Step 2: Support your liver and detox with supplements—Milk thistle and NAC (N-acetyl cysteine) will support your liver and raise your glutathione (your body's natural detoxifier) levels. This helps your body rid itself of the toxic invaders.

Step 3: Sweat it out—Last but not least, one of the best ways to get these toxins out of your body is to simply sweat them out. If your liver is

overwhelmed by the toxins and unable to process them all, then you can force some of them to exit right through your skin. Exercise and saunas can raise your body temperature and help you sweat those toxins out once and for all.

Chapter 5:

Send even the most stubborn infections—cold sores, toenail fungus, and more—into hiding for good

No matter what type it is or where it's located on your body, there's one thing that you can count on with any skin infection: It's not going to be pleasant—or pretty. These sorts of infections can leave you with itchy, pus-filled blisters, painful, scabby lesions, and thick, yellowed nails. And those are some of the more basic symptoms. Unfortunately, left untreated, it can get even worse.

But as is the case with eczema, skin infections are another instance where topical use of herbs—four in particular—can be a godsend, offering relief just as effective as any patented drug, and in some cases, even faster.

From the Outback to your toenails

Let's start with one you may have heard of already: Tea tree oil. It's made from a plant native to Australia (in fact, we can thank the aborigines for its contribution to herbal medicine), and in recent years it has

become more well known as an addition to various cosmetics. But tea tree oil also has powerful antifungal and antimicrobial properties.

Numerous studies have shown that local application of tea tree oil can be very effective against fungal infections of both the nails and skin. In one double-blind, randomized, controlled trial, 117 patients with toenail fungus used either tea tree oil or a solution containing 1 percent of the antifungal drug clotrimazole twice a day for six months. At the end of the trial the tea-tree-oil group experienced relief just as significant as the clotrimazole group.¹

In another double-blind, randomized, placebo-controlled trial, 104 patients with a fungal infection of the foot called tinea pedis used either a solution containing 10-percent tea tree oil, one containing 1 percent of the antifungal medication tolnaftate, or a placebo cream. Unlike the drug group, tea-tree-oil-treated patients didn't experience complete eradication of the fungus at the end of therapy. However, both the tea-tree-oil group and the tolnaftate group showed clinical improvement in symptoms such as scaling, inflammation, itching, and burning compared to participants in the control group. So the tea tree oil appeared to improve the symptoms but not remove the fungal cause.² There were no adverse reactions reported.

I would venture to guess that the tea tree oil cream used in this trial was too weak, because another placebo-controlled trial found that a cream using a stronger concentration of tea tree oil *was*, in fact, able to cure tinea. In this particular study, a 50-percent solution produced the best healing effect, although about 8 percent of the subjects using it did encounter a mild rash from the high concentration of oil.³ So for tea tree oil, the stronger the solution or cream the more effective it is at killing infections, but also the higher the risk of an adverse skin reaction.

Tea tree oil also works for a condition that all too many women battle on a regular basis: Yeast infections. In one study, 28 with chronic vaginal infections due to a strain of yeast called *Candida albicans* received vaginal capsules containing 0.02g tea tree oil in gelatin for daily

use over 90 days. After one month, 75 percent of the patients were completely healed, and only one patient experienced any side effects (in this case, vaginal burning).⁴

Other studies have shown that the results from tea tree oil are as good as those from the standard drug suppositories sold in pharmacies for yeast infections, without causing irritation, burning, or other side effects.⁵

What you can do when life gives you lemons— and cold sores

The next herbal infection fighter on our list is one that's a little less well-known: Lemon balm. But creams containing it can be very effective for relieving the cold sores brought on by the oral form of the herpes simplex virus (Type 1). In fact, one study found an improved healing rate for 75 percent of patients using lemon balm, as well as an increased time between outbreaks in 50 percent of cases. Compared to conventional treatments the average healing time of lesions was halved to about five days and the time between outbreaks was approximately doubled.⁶

In another multicenter study on 115 patients, 87 percent of the participants using lemon balm were completely healed within 6 days of treatment. And 69 percent of these patients had an extended time between outbreaks that was a full month longer than those using conventional drug treatment.⁷

In a more recent clinical trial, 66 patients with recurrent herpes-related cold sore outbreaks were treated with either the lemon balm cream or a placebo. The cream was applied to the affected area four times a day for five days. Compared to the placebo, symptoms were significantly reduced by the second day, which is important because this is around the time when symptoms are typically at their worst.⁸

Since these studies found that lemon balm cream effectively lengthened the time between outbreaks, it's reasonable to assume that it might also be able to prevent outbreaks altogether—or at least increase the time between breakouts even more—if it's applied regularly to cold-sore-prone areas.

Lemon balm cream can also be used to treat herpes simplex Type II infection, and probably other similar viral skin infections including shingles. (A technical note: If you decide to try this approach, the creams used in the studies contained 1 percent of a concentrated 70:1 extract of lemon balm.)

Two “garden-variety” herbs take on big-name herpes medication

Rounding out our list are two herbs, rhubarb root and sage, that have been pitted head-to-head against one of the most recognized herpes medications—Zovirax (acyclovir).

In a double-blind, controlled trial involving 49 patients using creams containing either 2.3 percent sage, 2.3 percent sage and 2.3 percent rhubarb, or Zovirax, the average time for the herpes sores to fully heal was 7.6 days with the sage cream, 6.7 days with the rhubarb-sage cream and 6.5 days for acyclovir.⁹

So while Zovirax had a slight advantage over the sage cream, the herbal combination worked just as well—without the side effects associated with the drug.

Chapter 6:

Harnessing the healing power of light

Part I: What you need to know about UV rays—beyond sunburn

Despite what the sun-screen industry would like us to believe, the drastic increase in use of these lotions and potions over the past several decades hasn't made a big impact in skin cancer rates. But what it *has* done is made people afraid of ultraviolet (UV) light. While it's true too much radiation from the sun can result in skin damage (not to mention a painful sunburn), those harmful effects are hardly the extent of what UV radiation is capable of—and its potential benefits far outweigh the risks.

As you may know, UV rays from the sun are the best source of the vitamin D your body needs to ward off cancer and dozens of other health problems. But that's just the beginning of what ultraviolet light can do.

Not only is it an extremely effective disinfectant with the ability to kill bacteria, viruses, and fungi in the air and on surfaces,¹⁻³ but UV light also has the potential to prevent—and even cure—infections and diseases that other treatments are powerless against.

A strong history leads to an even more promising future

Using ultraviolet light as a medical treatment may sound like a new technology, but the medical use of ultraviolet light for the prevention and treatment of disease is not at all a new area of research. This form of therapy has been studied since the late 19th century, when researchers first experimented with UV light in patients with lupus and sepsis. In fact, back in 1903, a Danish physician named Niels Ryberg Finsen won a Nobel prize for his work with UV light and the treatment of disease.

There are even a few forms of ultraviolet light therapy that “mainstream” medicine uses. Ultraviolet radiation can eliminate or reduce pathogens floating in the air. This process is called air ultraviolet germicidal irradiation, or UVGI. UVGI is an important technology in many hospitals, research centers, and laboratories where contamination with bacteria and fungal spores poses a serious health risk.^{4,5} One recent study evaluated the infection rate in an operating room in which total joint replacements had been performed over a 19-year period. Infection rates were three times higher when only regular (laminar) airflow was used as compared to an ultraviolet light plus laminar airflow system. The UV lowered the number of bacteria in the entire environment, thereby reducing the infection rate, rather than just reducing the number of infectious organisms present at the surgical site.⁶ The researchers concluded that UV light is a very effective means of lowering the rate of infection during total joint replacement therapy.

The most common form of UV light therapy used by the mainstream for treatment purposes is probably for psoriasis. UV radiation works well for this condition because it penetrates the skin and slows the abnormal rate of skin cell growth.^{7,8} It's also commonly used to treat acute tissue rejection in patients who have had heart transplants.⁹ And in 1988, the FDA even “approved” UV light therapy for the treatment of a form of non-Hodgkin lymphoma called cutaneous T-cell lymphoma.¹⁰

But despite these mainstream uses, UV light therapy is still considered “experimental” and “investigational” (or even “quackery”) for many of the

healthcare problems affecting people all over the globe. The application that seems to be the most controversial is ultraviolet blood irradiation.

Blood irradiation was developed in the 1920s, when a piece of equipment called the “ultraviolet blood irradiation (UVBI) device” was created to irradiate blood “extracorporeally” or outside of the body. UVBI was developed for medical use by an engineer, Emmet K. Knott and Virgil Hancock, M.D., and was used early in the 20th century to treat many types of diseases, including a wide variety of infections, many of them otherwise fatal. When antibiotics and vaccines were developed in the late 1940s and early 1950s, UVBI was almost completely set aside, even though a number of diseases, including hepatitis, streptococcal toxemia, and viral pneumonia, actually responded better to UVBI therapy than to antibiotics and vaccines, and even though UVBI was repeatedly described as quite safe in multiple publications.

With the rise in antibiotic resistant strains of bacteria and the growing interest in therapies that are less toxic, there is a reviving interest in UVBI as a therapy against infection. Even though it’s vastly underutilized, UVBI is still available here in these United States, and has remained a very important treatment modality in Russia and other countries, where many “modern” studies of its effectiveness have been conducted. So this month, we’ll cover the “modern” research, almost all reported since 1990, demonstrating that UV is “still” effective treatment for many problems.

Help your body create its own, internal vaccine

UVBI also goes by the terms light therapy, phototherapy, photophoresis, and photoluminescence. It uses UV light of varying wavelengths to destroy blood-borne pathogens, as well as to treat diseases not clearly linked to specific pathogens, and to improve general health. During a session, a small amount of blood, ranging from 60-250 cc, is withdrawn from a patient and sent through a chamber where it is irradiated with specific frequencies of UV light (since certain frequencies have different effects), and is then reintroduced into the body. This creates a kind of self-generated vaccine that can have many beneficial effects.

UVBI treatments sometimes include the addition of other compounds, either before or after irradiation. This combination therapy has been termed “photodynamic antimicrobial chemo-therapy, or PACT. PACT is used along with UV light to inhibit pathogens in blood products.¹¹ Conventional medicine has even embraced one form of PACT that involves exposing blood with-drawn from a patient’s body to UV radiation and a substance called 8-methoxypsoralen (8-MOP). This is the form of UV therapy used to treat cutaneous T-cell lymphoma, as well as systemic sclerosis and several other inflammatory conditions.^{12,13}

But “alternative” physicians, especially those who’ve read the older research, often accompany or follow UVBI therapy with hydrogen peroxide, which acts as a “synergist” to increase the effectiveness of UVBI.

While not all the mechanisms of action of UVBI are understood (some aren’t even guessed at yet), research has found that it increases the oxygenation of the blood,¹⁴ increases important blood markers that indicate healing, and inactivates viral, fungal, and bacterial toxins, including botulism and diphtheria toxins. It also improves chemical balances and cell permeability. And what makes UVBI even more impressive is that it not only begins working after just one treatment, but the effects are cumulative and persist for some time after each treatment session.

Several animal studies have demonstrated these quick, long-lasting effects. For example, when a group of horses that had been exposed to the anthrax virus had their blood treated, investigators noted increased hemoglobin content as well as red and white blood cell counts. An important measurement of inflammation, the erythrocyte sedimentation rate (ESR), increased after the first hour and remained elevated until the fourth day, and returned to normal after six days—but none of the horses “came down” with anthrax. The UVBI apparently stimulated the destruction of the infectious organisms.¹⁵

Light as air: UVBI offers major benefits for chronic lung disorders

One of the most important uses for UVBI in humans is in the treatment of lung diseases, including asthma, COPD, and bronchitis. In one

study of chronic bronchitis, patients who were given UVBI treatments every two to three days experienced significantly more improvement than the control group that received only conventional therapy.¹⁶

UV blood irradiation even has positive effects in patients with chronic forms of tuberculosis, which are notoriously difficult to treat.¹⁷ But following UVBI therapy, patients experienced reductions in their clinical symptoms, and increases in one of the standard measurements of breathing capacity called forced expiratory volume (FEV). They also had decreased levels of the bacterial pathogen, *Mycobacteria tuberculosis*, and improved markers of overall blood health (hematological indices).¹⁸

Studies have also shown that UVBI helps alleviate the inflammation of the trachea and bronchial tubes (“tracheobronchitis”) that often occurs after tracheostomy surgery (the creation of a new opening for air entry into the trachea at the base of the neck).¹⁹

No job too big

High blood pressure is still one of many people’s primary concerns. You may be surprised to learn that UVBI can help bring blood pressure levels back to normal ranges. In one study, arterial blood pressure in hypertensive patients who underwent five to seven sessions of UVBI dropped an average of 24 percent from initial levels. The general health of patients also improved and the clinical effect persisted for four to eight months, on average. Blood pressure isn’t the only aspect of cardiovascular health of which to be aware, and UVBI certainly isn’t the only natural treatment that can help alleviate hypertension, but researchers suggest that it may be a beneficial addition to other therapeutic measures for the treatment of cardiovascular disease.²⁰

While UVBI is a good addition to the other effective natural treatments for hypertension, there are very few treatments—natural or otherwise—that are effective for terminal kidney (renal) failure. But in one study in which patients with chronic renal failure were treated with UVBI, immune function was stimulated, a low white blood cell count was corrected, and patients demonstrated overall improvement.²³

Breathe easier without the blood

If you have asthma or other breathing difficulties but the thought of blood irradiation leaves you a bit squeamish, less-invasive forms of UV light therapy may still help. One animal study evaluated the ability of UV-B rays to induce airway immunity. A group of mice were exposed to enough of a dose of UV-B radiation to cause skin redness. Several days later, the researchers induced airway allergies in the mice. The results of the study demonstrated that UV-B radiation effectively reduced airway hyper-responsiveness to the allergens, suggesting it as a possible therapy for asthma and other inflammatory diseases of the respiratory system.²¹

Another recent study involving a small group of mold-sensitized asthmatic children looked at the effectiveness of UV irradiation units installed in their homes' central heating and cooling systems. The UV irradiation of home air was found to be effective in reducing airway hyper-responsiveness and other clinical symptoms, and is a promising therapy for the treatment of allergic asthma.²²

Making cancer treatments safer

As I mentioned earlier, UV light therapy has been used successfully as a treatment for cutaneous T-cell lymphoma, a type of cancer that is generally very resistant to chemo-therapy and radiation. But this isn't the only cancer application for UVBI. It also helps combat some of the negative effects of traditional chemotherapy and some of the hazards associated with cancer surgery.

In one study, patients undergoing chemotherapy which had caused a significant drop in their red blood cell counts had 200 ml of blood removed, then irradiated, and immediately returned to them. The red blood cell counts returned to normal.²⁴

During surgery, patients of course lose blood, and surgeons try to recover some of it to give back before the surgery is over. This process is called "intra-

operative blood salvage.” But during cancer surgery, the lost blood could be contaminated by cancer cells, so surgeons are hesitant to salvage it. In one study (done “*in vitro*,” not on a living patient) using a number of cancer cell lines and tumor preparations, researchers irradiated salvaged blood to see if the process could eliminate the potential for cancer cells to spread. Following irradiation of tumor-cell-contaminated blood, even though cancer cells were still present, there were no signs of them spreading. The authors of this study concluded that there was a clinical basis for using UVBI during surgery as a means of salvaging useable blood.²⁵ A later study using intra-operative blood salvaged by using UVBI confirmed these results and concluded that UVBI is an important way to save blood resources while avoiding cancer cell spread and the necessity for transfusion, which carries its own set of risks.²⁶

And speaking of risks associated with blood transfusions, results of a recent study showed that UV light combined with amotosalen (a synthetic but relatively safe version of naturally occurring plant compounds called “psoralens” found in figs, celery, parsley, and other plants) could inactivate parvovirus B19, a virus that may be transmitted through blood transfusions but, until now, evaded attempts to disable it.²⁷

Germ-killing with UV

In addition to all the benefits we’ve gone over so far, ultraviolet light is also particularly effective in killing antibiotic resistant strains of bacteria, which are a serious and increasing problem in many hospitals and other healthcare facilities these days.^{28,29} And like the asthma treatments mentioned in the sidebar on the previous page, UV light therapies for these forms of potentially deadly bacteria are done without withdrawing blood from patients. In one study, patients with chronic body-surface ulcers were treated using a lamp that emitted ultraviolet C (UV-C) light, held about an inch away from the wound site. After just one 180-second treatment, there were significant reductions in all types of bacteria, most notably *Pseudomonas aeruginosa*, as well as *methicillin-resistant S. aureus* (MRSA), which has been making headlines worldwide recently. A second study of the effects of UV light treatment on antibiotic-resistant strains of *S. aureus* and *Enterococcus faecalis* showed similar results with exposures as little as 5

seconds.³⁰ These results confirm other studies showing that UV-C can kill many types of bacteria present in superficial, chronic wounds.

When UV light is applied at the site of an infection it inactivates pathogens by creating something you are normally told to avoid: Free radicals. But, in this case, free radicals are a good thing, since they're causing oxidative damage to the invading organisms, not to your internal organs.³¹

As you've seen, all of this modern research has shown UV light and UVBI to be a safe and effective (not to mention inexpensive) treatment with rapid clinical response for a wide variety of acute and chronic conditions. But conventional medicine still hasn't gotten around to employing it as often as it should, as was done with great success (and reported in many, many peer-reviewed professional journals) in the 1920s through the 1950s. In 2008, UVBI therapy is done almost entirely by physicians skilled in natural and nutritional medicine, as well as intravenous (IV) therapies (see "Alternative Health Resources," page 485.) But with the ever-increasing spread of antibiotic-resistant micro-organisms, it's well past time "conventional" medicine goes "back to the future" and starts using this long-ago-proven therapy. The UV-treated conditions we covered in this chapter—all but one reported in the past two decades and the majority since the year 2000—are just the tip of the proverbial iceberg when it comes to UVBI's healing potential.

In Part II, I'll tell you about those research reports published right here in these United States from the 1920s through the 1950s documenting the use and effectiveness of UV light and UVBI to safely and effectively treat tens of thousands of humans with infections, including viral pneumonia, staphylococcal septicemia (serious, often fatal systemic staph infection), polio, erysipelas (streptococcal skin infection), puerperal sepsis (an often fatal infection also termed "childbirth fever"), staphylococcal skin infection (furunculosis), paralytic ileus (paralysis of the bowel after surgery), and thrombophlebitis (vein inflammation followed by blood clot). You'll also read about UV light's benefits for more common conditions like rheumatoid arthritis, herpes, psoriasis, and diabetes.

Thanks to Lauren Russel N.D. for her organization and summary of the data collected for this chapter.

Part II: Time-tested strategies for beating superbugs and more of today's deadliest health threats

In Part I you read about the benefits of ultraviolet light—and not just the vitamin-D-producing effects we generally associate with the sun's rays. While vitamin D production is certainly one of its critical functions, ultraviolet (UV) radiation goes way beyond that.

Let's take a step back and look at the beginnings of this time-tested therapy and how—despite what mainstream naysayers would like you to believe—it has remained a highly effective tool for fighting a vast array of health problems, from everyday ailments like asthma and arthritis to deadly infections like pneumonia and cancer.

The makings of a modern-day miracle

Niels Ryberg Finsen, a Danish physician and scientist, is considered to be the founder of modern “phototherapy,” the technical term for treating disease using ultraviolet light. When his own health started to fail, Finsen became interested in the bacteria-destroying effects of sunlight. This led him to develop ultraviolet treatment for a form of tuberculosis that affects the skin, known as lupus vulgaris. Finsen's UV therapy for lupus vulgaris had a 98 percent success rate¹ and in 1903, he was awarded the Nobel Prize in Medicine and Physiology “in recognition of his contribution to the treatment of diseases, especially lupus vulgaris, with concentrated light radiation, whereby he has opened a new avenue for medical science.”² His work created a basis for the ultraviolet sterilization techniques still used today in bacteriological research and radiation therapy.

Building on Finsen's work with lupus vulgaris, one of the earliest areas of research into UV therapy was its effects on skin infections. One of the earliest pioneers of UV therapy was Dr. Walter H. Ude, who successfully treated a potentially serious streptococcal skin infection called erysipelas. In nearly 100 cases, he reported a 100-percent cure rate using ultraviolet irradiation.³

Research into the use of external irradiation continued, focusing on mumps, which was very common among school-age children at the time. But UV light prevented the most severe complications associated with mumps. And, like many of the other applications we'll go over, mumps patients often responded after just one treatment.

Although it wasn't the first time UV radiation had been used internally, the most successful transition from external use of ultraviolet light to blood irradiation was made by a Seattle-area physicist named Emmett K. Knott, who developed and patented a treatment he called "photoluminescence." This form of treatment took advantage of the bacteria-killing properties of ultraviolet radiation by directly irradiating the blood stream to kill microorganisms. In 1928, Knott used photoluminescence to treat his first patient, who was suffering from a severe systemic infection (septicemia) following an abortion. (For centuries, "childbirth fever"—the same sort of systemic infection but following childbirth—was a major cause of death for young women.) By the time she received UV therapy, the woman's condition had deteriorated to the point where she was considered beyond the help of medicine. But after her blood was irradiated and re-introduced into her body, she made a full recovery. Later on, she was able to have a healthy child, despite nearly dying of septicemia.⁴

Knott and another Seattle-area doctor, obstetrician Dr. Virgil K. Hancock, went on to publish their accounts of UV therapy in 1934. It was the first article on the efficacy of what eventually came to be known by the term we use today, ultraviolet blood irradiation (UVBI) for treating infection.⁵

By 1942, Hancock and Knott had successfully treated 6,520 patients using UVBI without any harmful effects whatsoever. Their pioneering work was pivotal to fostering understanding of how this method could be used to treat bloodstream infections and cure many patients thought incurable by conventional medicine.

What happens during UVBI?

But besides providing the basis for today's research and understanding of UV therapy, Knott and Hancock also created a very simple process

for conducting their UVBI treatment. Using a syringe, a small amount of blood (approximately 300ccs, 10 to 11 ounces) was drawn from the vein of a patient, a natural anti-clotting agent was added, and the blood was then passed through a machine that irradiated it using ultraviolet light at a specific frequency for about 10 seconds. The flow of blood was then reversed with the syringe and re-injected into the patient. Treatments ranged from one single irradiation to a series of treatments if necessary, but usually no more than two were performed per patient in any given day.

Acute conditions, like colds, pneumonia, toxic conditions, and viral diseases generally responded to treatment within a few hours and usually required only one or two treatments. Chronic conditions were treated once or twice a day for up to three times a week, except for two conditions—atopic dermatitis and porphyria. Hydrogen peroxide is typically administered at the end of each treatment to improve the effectiveness of UVBI.^{6,7}

Like Emmett Knott, Dr. E.W. Rebbeck used UVBI for patients experiencing septicemia (systemic infection) following childbirth and abortion. While many of his patients were near death when they came to him at Shadyside hospital in Pennsylvania, all of them recovered following UVBI treatment. And in over 4,000 treatments he administered, he observed no adverse effects at all.⁸

Dr. Rebbeck's results were so outstanding that Shadyside Hospital established UVBI as a standard *preventive* treatment, rather than using it just to treat already septic cases.⁹

While polio is rare these days, it was a major health threat when this early research into UVBI was going on. Another physician, Dr. George Miley, and his colleague Dr. Christensen reported that in the 58 cases of polio they treated with UVBI, they only lost one patient. All other patients, ranging from those with mild to severe disease, improved significantly within 24-48 hours.¹⁰

Dr. Miley also demonstrated that UVBI was an extremely effective therapy for viral pneumonia. His patients experienced improvement within 24-76 hours, elimination of cough in one week or less, and

complete clearing of the lungs (confirmed by chest x-rays) within 24-96 hours. And all of this resulted from only one UVBI treatment.¹¹

Ironically, in 2008, “mainstream medicine” still has no reliably effective treatment for viral pneumonia, but continues to criticize UVBI as “quackery.”

Arthritis, asthma, shingles, and more: UVBI shows promise against “everyday” problems too

Early research into the applications and benefits of UVBI suggested that it might be useful in the treatment of many common health conditions too. Clinical studies following up on these claims have shown promising results in the treatment of several autoimmune disorders, including scleroderma, rheumatoid arthritis, and organ rejection.¹²⁻¹⁴ Other studies have been conducted into its effectiveness in the treatment of type 1 diabetes and multiple sclerosis.^{15,16}

Dr. Miley, who pioneered the use of UVBI for pneumonia, also used UV therapy to treat cases of asthma that showed no improvement despite elimination and desensitization of all possible allergens and only tempo-

Even more weapons in Mother Nature’s arsenal against infectious bacteria, viruses, and fungi

While UVBI is the best researched and reported, it’s only one of our defenses against “supergerms.” There’s also considerable research on the effectiveness of silver as a germ-killer, and—like UVBI—silver kills bacteria, viruses, and fungi without inducing resistance. Then there’s intravenous ozone, also a “non-discriminate” germicide. And these are only three of many more potential tools.

So when the news reports proclaim the arrival of the Grim Reaper in the form of antibiotic-resistant bacteria, rest assured that Mother Nature can—and will—come to the rescue for those of us smart enough to turn to her for help.

rary relief (or none at all) following the injection or inhalation of adrenaline (cases like this are technically referred to as “intractable” asthma). Of the 56 intractable asthma patients he treated with UVBI, 45—that’s 80 percent—showed definite improvement, and they maintained the improvement for up to a year.^{17,18}

In the 1930s and 1940s, Dr. Miley also treated 11 patients with very resistant boils caused by a bacteria that’s still causing problems for many people today, *Staphylococcus aureus*. But after two to four treatments, most of Dr. Miley’s patients experienced a reduction in the number and rate of recurrence of boils.²¹

He also reported that UVBI worked well for patients struggling with cases of shingles that conventional methods had been unable to alleviate.²²

Poison control goes back to basics

Many of the early researchers focused their attention on the ability of sunlight and UV radiation to detoxify certain poisonous substances like the toxins produced in botulism, tetanus, and even snake venom.

In one notable case, Dr. Miley reported that a patient dying from the effects of botulism and unable to see or swallow recovered within 48 hours after treatment. She was able to leave the hospital within two weeks after a single UVBI treatment.²³

Miley also observed that UVBI-treated patients with peritonitis, an infection and inflammation of the intestinal lining, showed signs of recovery within less than 35 hours, and complete recovery within 82 hours following treatment. And he reported that patients suffering from appendicitis recovered completely in less than two days.²⁴

The amazing thing about these reports is that most of the results were achieved after only one treatment. Among those patients treated by Miley at Hahnemann Hospital in Philadelphia was another patient with serious blood poisoning following abortion that antibiotic therapy had failed to control.²⁵ Prior to treatment with UVBI, the patient was near

death. Within 48 hours of treatment, however, she was no longer in a morbid state.²⁶ She subsequently made a complete recovery.

Miley also treated another patient who was in a state of systemic infection and profound shock, including irregular heartbeat, following removal of a gangrenous appendix. Within *minutes* after the patient's UVBI-treated blood was returned to his body, he improved significantly and all signs of shock—including the irregular heartbeat—were substantially diminished. By the next day, the patient was able to sit up in bed and function normally. Although he needed two more UVBI treatments to eliminate all toxic symptoms, he also made a complete recovery.²⁷

In yet another amazing case, a patient with pelvic abscess and steady decline despite antibiotic therapy was detoxified within 72 hours of receiving blood irradiation therapy. She was given a UVBI treatment prior to undergoing surgery to remove the pelvic infection and recovered without any side effects.²⁸

Making UV light even more effective against cancer

You've probably read in the past about combining UV radiation with other substances. These compounds are called photosensitizers. While this concept has been understood and applied since the 1800s, the most recent example is the combination using UV radiation along with a compound called 8-methoxyypsoralen (8-MOP) that comes from a plant that grows along the Nile to treat T-cell lymphoma.²⁹

While photosensitizers aren't necessary to achieve good results from UVBI treatment, they do improve its effectiveness.³⁰ The use of photosensitizers in the treatment of cancer, for example, can improve treatment outcome since the rapidly dividing cancer cells absorb more of the photosensitizer compound. Then, when the blood is irradiated, more of the cancer cells will contain the photosensitized compound and be killed by the light.

One of the first researchers to investigate UVBI for treating cancer was Dr. Robert C. Olney. In five cases of cancer treated with UVBI using the UV-A light, he reported a 100-percent recovery rate.³¹

Since Dr. Olney's early work, UVBI has been used to treat early and advanced lung cancer, advanced esophageal cancer, early and advanced head and neck cancers, and ocular cancers.³²⁻³⁴

Exactly how UVBI works is a mystery, but the results are real

UVBI appears to work by stimulating the body's immune defenses, but exactly how it does this still hasn't been identified. Some researchers have theorized that perhaps humans may be susceptible to an "ultraviolet light deficiency." And based on the cancer- and infection-fighting effects it has, it does seem possible that UVBI could correct an underlying vitamin D deficiency (which increases the risk of a vast array of health problems). Of course, it's likely that UV light has many more effects in addition to stimulating vitamin D synthesis, but this aspect could play a role in its success.

But regardless of knowing exactly how UVBI works, all of the research done since the 1920s shows that it does work. In case after case of serious and life-threatening acute infections treated with UVBI therapy at Hahnemann and other hospitals, Dr. Miley reported that his patients all recovered without ill effects.³⁵⁻⁴⁰

The same is true of the subsequent research as well: Most physicians using UVBI have noted that, within 12-24 hours after treatment, patients usually experienced a reduction in headache, nausea, chills, fever and other symptoms of toxicity. And most go on to full recovery following as little as one treatment.

Whatever happened to UVBI?

As you've seen from all these case studies, UVBI had two decades (late 1930s through early 1950s) of proven effectiveness in the treatment of serious infection, often relieving symptoms within hours of treatment. Success after success was reported in dozens of medical journals, both "major" and "minor," by responsible investigators and practicing physicians. UVBI was in use in hospitals and clinics alike, and no harmful effects were observed in tens of thousands of treatments. The overwhelm-

ing majority of bacterial infections were eliminated, and viruses yielded to UVBI too. Even fungal disease was improved.

So why did a treatment with such an outstanding record of success just “disappear”? Whatever happened to UVBI?

Antibiotics are what happened. Antibiotics “got off the ground” during World War II (1941-1945 for these United States) and did indeed save the lives of many soldiers and airmen suffering from infections that occurred after being injured. Although many antibiotics (like penicillin) were actually derived from Nature (penicillin from a mold), the average bacteria had never seen them before in such quantity and with such frequency. Bacteria had no defenses against this never-before-seen antibiotic onslaught, and antibiotics became “lethal weapons” against bacteria: One infection after another gave up and died. Not only that, but it was undeniably much easier to swallow tablets or capsules than to have an intravenous procedure, however effective it might be. The “golden age” of successful bacteria fighting was proclaimed and UVBI was “obsolete,” (not to mention that it was no longer covered by patents from the 1920s and 30s).

But bacteria are living things, and living things don’t like being killed. Living things usually find a way to survive, even when their numbers are greatly reduced at first. When they’re forced to learn new ways by affliction and hardship, surviving living things frequently emerge much stronger than they’ve ever been, more ready than ever to do battle, and this time, more likely to win.

That is exactly what has happened with bacteria and antibiotics in the 21st century. By now, everyone has heard of—and many are very afraid of—“supergerms,” bacteria resistant to nearly all types of antibiotics. Medical “authorities,” the Feds, and the media all tell us that we have almost no defenses against these supergerms.

But we do! Regardless of main-stream skepticism, UVBI is still one of our best defenses against super-germs. And even though they’ve “fallen out of fashion,” so to speak, UVBI treatments have continued to be done by many alternative medical practitioners. Unfortunately, present-day “conventional” practitioners now view UVBI as “quackery.”

But it's well past time for the mainstream health authorities to give up their skepticism about this time-tested therapy and to realize that there are many treatment possibilities for illness besides patent medications, un-natural radiation, and surgery. The list of health problems improved by UVBI is a long one, and includes diabetes, asthma, COPD, hypertension, chronic renal failure, some cancers, rheumatoid arthritis, psoriasis, paralytic ileus, thrombophlebitis, and irritable bowel syndrome. It's time to re-open the medical journals of the past, read all about these (and many more) successes of UVBI, and start applying them to today's health problems.

Chapter 7:

Shocking News About Allergies and Asthma

By: Dr. Mark Stengler, Health Revelations

Millions of people are walking around suffering from respiratory allergies... asthma... recurring colds... and bronchitis—and they don't have to be.

Let me give you an example: Pam, a woman in her 40s, had three colds in a row that turned into bronchitis. Another doctor had given her an asthma diagnosis. When she came to see me, she told me that she had been struggling with allergies and persistent fatigue for most of her adult life. I see so many patients with this combination of symptoms that I immediately suspected that she had an altogether different problem. It is called adrenal fatigue (AF), a collection of symptoms that occur when the adrenal glands, which produce stress and inflammation-fighting hormones, no longer function properly.

You might wonder what AF has to do with these other conditions.

My answer: Everything. What's really going on is that AF is masquerading as allergies or asthma. Once AF is properly diagnosed and

treated, these other conditions quickly clear up. I prescribed a treatment plan for Pam designed to get her adrenal glands functioning normally again. After just two months on the program, her respiratory problems disappeared and her energy level was higher than it had been in years.

What you need to know: AF is most often associated with a wide range of symptoms, including lack of energy, insomnia, blood sugar swings, cognitive impairment and depressed mood. But AF also can have a significant impact on your immune system. In addition, it often is not recognized by conventional physicians because it doesn't show up on regular lab tests. As surprising as it may sound, if you suffer from a respiratory allergy to dust, pollen, ragweed, pet dander or other environmental allergen—or if you have asthma that recurs despite treatment—there's a chance that your real problem is improperly functioning adrenal glands. (I have even found that AF is associated with asthma in some children, although it is more common in adults with asthma.)

AF can be the root of other problems

The adrenal glands are responsible for producing the hormone cortisol (released into the bloodstream in response to stress) and *dehydroepiandrosterone* or DHEA (a precursor to hormones such as estrogen and testosterone). AF usually occurs when patients undergo extended periods of stress, which cause levels of DHEA and cortisol to become elevated for long periods of time, usually four months or longer (although this varies by patient). The surplus production of DHEA and cortisol overtaxes the adrenals, resulting in a sharp drop in DHEA and cortisol levels.

What AF does to the immune system: Both cortisol and DHEA modulate the immune system's inflammatory response. When the glands no longer produce sufficient amounts of these hormones, the immune system becomes overactive, producing inflammatory responses even when there's no real threat or infection looming.

Result: Allergic responses... respiratory infections... and asthma. Most conventional medical doctors treat these conditions by prescrib-

ing antihistamines for allergy symptoms and corticosteroids to ward off asthma. In other words, they treat the symptoms, not the disease.

Diagnosis and testing

If you suspect that you have AF, it's best to see a naturopathic physician and have your adrenal function tested. My preference is a saliva test, which is more accurate than a blood or urine test. Your physician will retest you three or four months after treatment begins to see if your levels have improved.

How to heal the adrenals

My treatment protocol for AF involves supplements to boost adrenal function and/or increase resistance to stress. Patients follow the protocol for four to six months, which is the time it usually takes to get the adrenals working properly again. Most patients begin to feel better within the first month or two. When patients are doing well, I help wean them off their allergy or asthma medications during this time. People with very severe cases usually stay on my regimen for eight to 10 months. After treatment, patients either take lower doses or stop taking these supplements altogether, depending on their overall health. The supplements that I recommend below include herbs (which are most important in helping this condition) and B vitamins. There are no side effects except as noted.

- **Ashwagandha.** This herb, used in Ayurvedic medicine to treat inflammation, is a potent adaptogen, an herb that helps to bring physiological processes into balance and enhances the body's ability to handle stress. It has a strong effect on the adrenal glands and normalizes production of cortisol.

Dose: 250 mg daily of ashwagandha standardized to contain eight percent of the active ingredient *anolide*.

- **Rhodiola.** Another adaptogen, rhodiola is an herb that has been used for centuries in Eastern Europe and Asia as an energy and mood enhancer. It boosts adrenal function, and studies show that it also improves the body's resistance to stress.

Dose: 300 mg daily of rhodiola standardized to contain three percent of the active ingredient rosavin.

- **Siberian ginseng** (*Eleutherococcus*). Another adaptogen, this herbal extract has been used for centuries in Russia and Asia to boost energy and fight stress.

Dose: 150 mg to 200 mg daily of Siberian ginseng extract standardized to contain 0.8 percent *eleutheroside*.

Side effects: Can cause insomnia if taken before bedtime and can affect some diabetes drugs. Should not be used during pregnancy.

- **Vitamin B-5 (pantothenic acid)**. Vitamin B-5 helps adrenal function and is used by the body to manufacture cortisol.

Dose: 250 mg to 500 mg of vitamin B-5 daily.

- **Vitamin B-12**. This vitamin helps boost resistance to the effects of stress.

Dose: 50 mcg to 100 mcg of vitamin B-12 daily.

Finally, I advise my patients to take steps to reduce stress in their daily lives.

Recommendations: Get enough sleep (seven to eight hours a night)... take a 30-minute midday nap, if possible... eliminate all refined sugars from your diet... take regular vacations... and minimize daily stress by exercising or participating in relaxing activities, such as listening to calming music.

Chapter 8:

Killer appliances? 9 ways to protect yourself from the new pollution more deadly than lead poisoning

Many historians actually attribute the decline of Rome—at least in part—to lead poisoning from Roman water pipes. Of course, the Romans had no clue: They couldn't see, smell, or taste the lead that leached from the pipes. But the fact that it was invisible and silent didn't mean that it wasn't deadly. In fact, countless Romans developed chronic illness and even died from lead poisoning, without ever realizing what had happened to them.

And if you're wondering why I'm bringing up such "ancient" history, it's because, today, in the 21st century, we may be just as clueless. Our technology has exposed us all to an invisible, untouchable pollutant with strong possibilities of doing far worse to us than lead did to the ancient Romans.

But the good news is we're not entirely defenseless against all this invisible pollution. In this chapter, I'll cover some things you can do to

defend your health against at least some of it. First, though, it's important for you to fully understand what you're up against.

Everyone's at risk

This new invisible pollutant is our overwhelming 24/7 exposure to hundreds if not thousands of electromagnetic frequencies and wavelengths never before experienced by humans or any other life on Earth.

Of course, exposure to some electromagnetic radiation isn't a new phenomenon. Humans have always co-existed with minimal exposure to very low frequency electromagnetic fields (EMFs) that occur naturally from the sun and natural energy fields generated by the Earth, the human body, and other living things. But with the development of electricity, manmade sources of EMF exposure—from very high to very low frequencies—have increased dramatically over the last 120 years. And these exposures are everywhere: Nearly every habitable area of our planet has some degree of artificial electrical electromagnetic field.

EMFs are made up of two things—electric fields and magnetic fields. These fields radiate power, which is often referred to as energy “waves.” Electrical engineers and scientists often compare EMFs in wires to water flowing through a hose. Electromagnetic energy isn't restricted to flowing in wires anymore, though: Energy waves get transmitted through the air to all kinds of receivers—antennas, cell phones, laptop computers, etc.

There are two types of EMF exposure. The first type is generated by electrical appliances and power lines and is known as “extremely low frequency electromagnetic fields” or ELF. The second type is radiofrequency radiation (RF). RF is most commonly generated by equipment used to transmit wireless signals, such as cellular towers and antennas, broadcast transmission towers, and the equipment receiving these signals, such as cell and cordless phones.

The number of repetitions of each electromagnetic wave—called cycles per second—is termed “Hertz” (Hz), named after a pioneer 19th century researcher. Although most electrical current is generated at around

60 Hz, poor power quality caused by high-frequency voltage changes often contaminates the 60-Hz transmission frequency.¹ This “dirty” electricity exposes us all to high-frequency radiation (much higher than 60 Hz) through the wiring, electrical outlets, and electronic devices we’ve come to depend on every day. To put all these frequencies into perspective, consider that an electric train has a frequency of 20 Hz, whereas wireless communication commonly operates at 1 billion Hz (1 GHz).²

Health concerns about EMF exposure, particularly magnetic field exposures, have been cropping up since 1979, when two researchers discovered a relationship between childhood leukemia risk and “exposure to EMF radiation from electricity transmission lines.”³

Since then, the safety of EMF has been the subject of quite a bit of debate and speculation. The research has continued too, and the fact is, electrical hypersensitivity, or overexposure to radio-frequency radiation, also known as “radio-wave sickness,” is growing at an alarming rate. In fact, up to 50 percent of the population may be hypersensitive.

Cancer, Alzheimer’s, diabetes, and more: The many faces of radio-wave sickness

In one case, a mother noticed her 13-year-old son had been having abrupt and very noticeable behavior worsening multiple times daily for years. The episodes occurred at the exact same times every day when he was at home, but he didn’t have these problems at all when he and his mother were out of the area. After months of painstaking research, she discovered his behavior changes were “triggered” by the rotating radar beam from the local Naval Air Station that “swept over” their home at exactly those times. They tried nutritional, biochemical, and acupuncture treatments, but nothing worked, so they moved to another area well away from the radar beam. The abrupt behavior changes completely disappeared.

Unfortunately, the problems associated with EMF go far beyond the behavioral experiences this young boy experienced. Studies conducted over the last two decades suggest that EMF is both neurotoxic and carcinogenic.⁴

Since that first study back in 1979, EMF has been implicated numerous times as a risk factor in childhood leukemia, in some cases even at very low exposure levels.⁵⁻⁷

A number of studies have examined the occupational risk of exposure to EMF and have found that electrical workers are at significantly increased risk for brain tumors and acoustic neuromas (a type of brain tumor that affects hearing).^{8,9} Experts say that the risk is similar to that for lung cancer from second-hand smoke.^{10,11}

But it's not just on-the-job exposure that's dangerous.

Although still one of the most controversial areas of research, more than a dozen studies suggest an increased risk of brain tumors (gliomas) and acoustic neuromas from the use of cell phones. Risk may be increased in people who have used cell phones for more than 10 years, particularly if that use is only on one side of the head.¹²⁻¹⁴

RF exposure may disrupt cellular communication, cell membrane function and metabolism, and trigger the activation of proto-oncogenes (genes which pre-dispose to cancer) and stress hormones. Other effects attributed to RF exposure include DNA breakage and chromosomal aberrations, cell death, increased production of free radicals, and changes in brain function.

Exposure risk has also been studied for other adult cancers.¹⁵ EMF exposure has been indicated as a possible risk factor in the development of breast cancer because of its effects on melatonin levels (declining levels of melatonin have been associated with breast cancer risk).^{16,17} According to one researcher, "Collectively, the data are consistent with the idea that exposures to EMF, as defined, are associated with some increase in breast cancer risks..."¹⁸

Beyond cancer, EMF has been associated with exacerbating or contributing to many illnesses ranging from diabetes¹⁹ and multiple sclerosis, to asthma, fibromyalgia and attention-deficit disorder.²⁰

And studies have also found a relationship between exposure to EMF and neurological conditions like Alzheimer's disease and amyotrophic lateral sclerosis (ALS). In fact, in some cases, there's been a doubling and even tripling of the risk for developing ALS.^{21,22}

Current “protection” doesn't measure up

One of the biggest problems we face is that all of this EMF and RF technology was invented and put to use without thinking about the potential health risks. And the current regulatory standards just aren't offering enough protection. Despite all the studies showing that EMF and RF exposure are risk factors for numerous—and serious—health problems, the FCC hasn't done an adequate job defining safe exposure standards. In fact, exposure standards for RF are based on the weight and height of a 6-foot-tall male, which leaves out a vast majority of the population.²³

A consortium of international scientists and public health professionals put together a BioInitiative Report outlining the problem and insisting existing public safety limits for ELF and RF are inadequate.²⁴ The report calls for more research to establish standards and guidelines that protect people from health risk, which isn't exactly an easy thing to do.

Not only is EMF technology everywhere these days, but studying EMF is complicated by many factors, such as the effects of different and over-lapping frequencies, amount of exposure, distance from source of exposure, and amplification of signals.

In the meantime, the only thing you can do to protect yourself from high-frequency radiation is to reduce your exposure to it.

What your transistor radio can tell you about your home

You can check for electrical pollution by taking a small, hand-held radio and tuning it to 500 AM, usually the lowest possible frequency on the dial. Turn up the volume and you'll hear a noise. Then, bring the radio close to electrical equipment, like dimmer switches, fax machines,

computers, microwave ovens, telephones, and compact fluorescent bulbs. When you bring the radio close to a source of electrical energy, the noise coming from the radio will likely increase, which indicates electrical pollution.^{25,26}

If you have electrical pollution in your house, it's important to install Graham/Stetzer filters everywhere necessary. The Graham/ Stetzer filter, or "Stetzerizer," is a capacitor (a filter of abnormal frequencies) that plugs into any 110-volt electrical outlet (the universal household plug-in) and eliminates high-frequency electrical waves generated between 4 to 100 kHz.^{27,28} It usually takes about 20 Graham/Stetzer filters to protect a typical home from electrical pollution coming from televisions, lamps, toasters, and other electronic equipment.

Studies have shown that these filters improve health, often quite dramatically, and reduce the effects of EMF in homes and offices.²⁹

In many case studies, patients have reported significant improvement in their health within a few hours to a few days. Sometimes the improvement in health is immediate. These positive health effects include a decreased number and severity of headaches, increased energy, better balance in patients with MS, decreased blood sugar levels in patients with diabetes, and increased wellbeing.³⁰

In one particular study, Graham/Stetzer filters were installed in a school in Wisconsin that had been classified previously as a "sick" building. Previous attempts to fix the problem by removing mold had had no effect on symptoms.³¹ But after the Graham/Stetzer filters were installed, there was a dramatic decline in the number of headaches experienced by teachers and students, reduced symptoms of asthma among students, and improvements in memory, concentration and energy, and general wellbeing.³²

Similar effects were noted in another study, this one conducted in a school in Canada, where 50 Graham/ Stetzer filters were installed. After six weeks, the teachers, who were unaware of the study, reported that they had fewer headaches and body aches and were less frustrated, ir-

ritable, and tired. They also had a general sense of improved health and mood. Although the results weren't as conclusive for students, teachers reported that they were less disruptive.^{33,34}

Simple ways to protect yourself starting today

Some other things you can do to reduce or eliminate your exposure to high-frequency radiation:

1. Have dimmer switches replaced with regular switches and replace halogen lamps with regular light bulbs.
2. Remove or bypass variable speed drives on heating and cooling systems.
3. Replace “touch lamps,” wireless plug-in jacks, compact fluorescent lights (CFLs), and fluorescent bulbs with electronic ballasts.
4. Don't buy a plasma TV. If you already have one—sorry about that—stay as far away from it as you can while still being able to see the on-screen picture. And don't buy another one!
5. Make sure that any new electronics you buy already have harmonic noise filters installed.
6. Position electrical equipment on outside walls so that radiation isn't projected into other rooms of your home or office. It's particularly important to avoid electronics in areas around beds. If possible, keep electronic equipment, including your digital alarm clock, at least six feet from your bed.
7. Unplug electrical appliances when they're not in use and use power strips that you can turn off.
8. Don't hold your cell phone against your head, especially if you use it a lot. Switch sides to reduce exposure on any one side. Or, even better, use a plug-in device which keeps the cell phone away from your head. Wireless devices, like Bluetooth technology, can also increase EMF exposure, so it's better to use speakers or a headset.^{35,36}

For more suggestions on limiting your exposure to this potentially deadly pollution, you can refer to the website www.electricalpollution.com, and click Electrical Pollution Solutions. Also check www.stetzerelectric.com.

Thanks to Lauren Russel N.D. for her research and other contributions to this chapter.

Chapter 9:

New secrets for reading your body like a book

When's the last time you read a mystery novel? Whether you prefer Sherlock Holmes, Miss Marple, or Charlie Chan, all these great detectives have one thing in common. They use common sense and hard facts to uncover the most obvious signs in order to solve the mystery. But what does a mystery novel have to do with you? Everything.

Imagine if you could read your own body just like a book... Well, you can. By looking at the right signs, you can solve the mystery of whatever's ailing you. Page by page, you will uncover clues for conquering illness and disease. By the end of your quest, you will have found the true path toward optimum health.

Here's how it works.

There are warning signs written all over your body that point directly to a larger problem with your health. But all too often we shrug off changes to our skin, hair, fingernails, and other parts of our bodies as a natural part of growing older.

And, in the age of the 10-minute routine checkup, your doctor probably doesn't take the time to look for hidden warning signs point-

ing to larger problems like heart disease, diabetes, food allergies, and nutritional deficiencies. Too often, your doctor takes your weight, measures your blood pressure, and sends you on your way.

The good news, however, is that the signs can be written all over your body and they are simple for you to spot. And once you know what to look for, you can take the steps needed to prevent or even cure many serious illnesses.

With this special chapter, you'll learn exactly how to read your body like a book. You'll begin to look more closely at your skin, hair, eyes, tongue, and other parts of your body to find vital clues for lurking illnesses.

Before you read the next few pages, I recommend you take out a pen and look into the mirror. Using the box on the next page, place a check next to each symptom you see on your body today. You might be surprised by how many signs you'll find.

Then, read the following report to discover what your body is trying to tell you. In most cases, you'll find there are natural, inexpensive, and non-prescription remedies for your most worrisome problems. Sometimes, it's even just a matter of making slight changes to your diet.

However, you'll notice that in many instances, there's no direct dosage advice. When you're making self-observations like these, it's always a good idea to compile a complete list of the things you notice and meet with a doctor skilled in nutritional medicine before making any changes or additions to your supplement program. Your specific combination of symptoms might require a different nutrient and dosage combination than someone else, and your doctor can help you tailor a program specifically suited to your own needs.

For a list of naturally oriented physicians in your area, please contact the American College for Advancement in Medicine (800)532-3688; www.acam.org; the American Association of Naturopathic Physicians (866)538-2267; www.naturopathic.org; or the American Academy of Environmental Medicine (316)684-5500; www.aaemonline.org.

COMPLETE BODY CHECKLIST

- | | |
|---|--|
| <input type="checkbox"/> Rosy cheeks | <input type="checkbox"/> Premature gray hair |
| <input type="checkbox"/> Yellowish skin | <input type="checkbox"/> Thinning body hair |
| <input type="checkbox"/> Teenage acne | <input type="checkbox"/> Pale tongue |
| <input type="checkbox"/> Adult acne | <input type="checkbox"/> Scalloped tongue |
| <input type="checkbox"/> Psoriasis | <input type="checkbox"/> Bumpy tongue |
| <input type="checkbox"/> Eczema | <input type="checkbox"/> Bleeding gums |
| <input type="checkbox"/> Skin tags | <input type="checkbox"/> Canker sores |
| <input type="checkbox"/> Dry skin | <input type="checkbox"/> Cracked lips |
| <input type="checkbox"/> Raised dry spots | <input type="checkbox"/> Cold sores |
| <input type="checkbox"/> Forehead wrinkles | <input type="checkbox"/> Dark circles under the eyes |
| <input type="checkbox"/> Varicose veins | <input type="checkbox"/> Cloudy eyes |
| <input type="checkbox"/> Easy bruising | <input type="checkbox"/> Red, watery eyes |
| <input type="checkbox"/> Cracked, callused feet | <input type="checkbox"/> Eye hemorrhages |
| <input type="checkbox"/> Earlobe creases | <input type="checkbox"/> Cracked nails |
| <input type="checkbox"/> Cracked ear skin | <input type="checkbox"/> White spots on fingernails |
| <input type="checkbox"/> Dry, flaky scalp | <input type="checkbox"/> Neck or back pain |
| <input type="checkbox"/> Sensitive scalp | |

CLUE # 1: Skin

Your skin is your body's largest organ. Don't miss the obvious signs of illness.

Problems throughout the body very often surface first on the skin. Even dry skin can point to a more serious problem. Look hard in the mirror and read the signs.

❑ Rosy cheeks

Your dermatologist probably doesn't talk about it...but many skin ailments are directly related to problems in your stomach.

Do you have rosy cheeks and/or broken capillaries on your nose? Do you find that many people assume you're a heavy drinker? What most of us don't realize is there's often a strong correlation between red faces and low stomach acid production. And Father Time is the culprit.

As we get older, our stomachs stop producing adequate levels of hydrochloric acid and pepsin. By taking supplements of these elements, you can often correct this simple digestive problem. You'll feel and look a whole lot better!

Is your face generally red all over? Is it most noticeable on your forehead and cheeks? Maybe you even suffer from medium to large acne-type bumps. Your dermatologist has probably diagnosed it as acne rosacea and put you on some type of prescribed medication. But did you know this, too, almost always signals low stomach acidity? Taking supplemental hydrochloric acid and pepsin will not only help aid your digestion but also, in all likelihood, help combat your acne rosacea.

Here's what you can do. Take one capsule (5, 7-1/2, or 10 grains) of either betaine hydrochloride-pepsin or glutamic-acid hydrochloride-pepsin just before meals. If there are no problems, then gradually increase the dosage over several days to the recommended amount (40 to 90 grains per meal). This kind of treatment should always be carefully monitored by

a physician. Also, hydrochloric acid should never be used in combination with aspirin, Butazolidin, Inodicin, Motrin, or any other anti-inflammatory medications. These medications can cause stomach bleeding and ulcers, so using hydrochloric acid with them increases the risk.

❑ **Yellowish skin**

Many people over 50 have a slightly yellow tone to the facial skin. Most of us just chalk this up to getting older. But there is something you can do to get back the rosy glow of your youth. Vitamin B12 injections have been found to help restore the healthy pink-red tones to the face and even support the health of the nervous system. A lack of B12 frequently is due to an older stomach that also isn't making the amounts of hydrochloric acid and pepsin that it once did.

Don't shrug off a brownish-yellow discoloration of the skin on the front of your legs either. This is very often an early warning sign for insulin problems and diabetes.

A slightly yellow tone to the skin all over your body often points to a larger problem. Your thyroid might be under functioning. You must be persistent in discussions with your doctor, because a slight hypothyroidism often doesn't show up in a blood test.

You should also watch out for the other telling signs of an under functioning thyroid, such as persistently low body temperature, dry skin, poor hair, and weak nails.

❑ **Teenage acne**

Teenagers everywhere suffer from chronic acne and are taken to the dermatologist for a quick fix. But most often, by eliminating refined sugar from their diets, teenagers can stop spending hours in front of the mirror trying to cover up the problem. Eating more foods with zinc and essential fatty acids, like unroasted sunflower seeds and pumpkin seeds, is also very helpful. For very serious cases, however, supplements can be most effective. Also, if the teenager's acne is very severe, it's likely he or she probably has some type of food allergy.

****Note:* Sixty percent of all undiagnosed ailments involve some type of food sensitivity. There are many ways to identify food allergies and sensitivities. Physicians and other health-care practitioners have found that elimination diets, certain types of skin tests, blood tests, muscle testing, electrodermal testing, and radionics are all helpful in the identification of food sensitivity.

Many teenagers also suffer from rough, bumpy skin on the backs of their arms. This often points to a deficiency in vitamin A. Eating lots of carrots, sweet potatoes, yams, and squash can be very helpful. Sometimes, this also points to a lack of essential fatty acids and B-vitamins.

❑ **Adult acne**

If you're over 25 and still suffer from acne, you undoubtedly have some type of food allergy. For complete acne relief, these allergies need to be identified and dealt with. However, topical application of "creams" containing niacinamide, azelaic acid, tea-tree oil, and pantothenic acid can reduce acne for teens and adults alike.

❑ **Psoriasis**

If you have psoriasis, you know all too well what those silvery scales or red, raised patches on your hands, arms, and face look and feel like. The elements nickel and bromide in very small quantities can help cure this chronic skin problem.

❑ **Eczema**

If you have red, cracking skin on your hands and other parts of your body and have been diagnosed with eczema, food allergies are part of the problem. Eggs, dairy and peanuts are the foods most likely to trigger allergies. Also, supplemental zinc and essential fatty acids are very necessary for children and others with eczema.

❑ **Skin tags**

As we get older, many people develop seemingly harmless skin “tags” under the arms, behind the neck, and in the groin area. But they’re definitely not something to ignore...and are more than just a cosmetic problem.

Even though skin tags are thought to be viral in origin, these skin growths can be a distant warning sign for type 2 (maturity-onset) diabetes. You should definitely ask your doctor for a glucose-insulin tolerance test. (This test is used to determine “insulin resistance.” The ordinary glucose-tolerance test will not find insulin resistance, which is a precursor to type 2 diabetes.) Even if diabetes doesn’t run in your family, skin tags sometimes indicate a higher risk for you!

❑ **Dry skin**

Do you apply a moisturizer after shaving or taking a shower? Cosmetic companies have made millions of dollars marketing their special creams to women and men who suffer from dry skin. But dry skin points to a nutritional deficiency of essential fatty acids. If you increase fish, nuts, and salad oils in your diet, your dry skin won’t come back even in the harshest of winters!

❑ **Raised dry spots**

Many older women suffer from small, slightly raised dry spots, called “actinic keratosis,” on their hands and forearms. Rubbing Retin-A, a natural acidic form of vitamin A, into these patches often helps reduce the size or take them away entirely if used persistently. A prescription is required, so check with your doctor.

❑ **Forehead wrinkles**

Most of us have them. Wrinkles are a part of getting older, right? But if your wrinkles run vertically on your forehead and are accompanied by abdominal pain, there’s a good chance you have a duodenal ulcer. I recommend taking a test for *Helicobacter pylori*. If the test turns out

positive, try a natural substance called mastic. Talk to your doctor about using 500 milligrams three times daily for four to six weeks.

❑ **Varicose veins**

Most women accept varicose veins as a part of motherhood and growing older. And, yes, they do run in certain families. But so does a higher requirement for flavonoids, which strengthen veins and prevent varicose veins in the first place.

Flavonoids are found in citrus fruits, blueberries, and all other red, blue, and purple fruits and vegetables, as well as a long list of botanical supplements, including hawthorn, bilberry, ginkgo, horse chestnut, pycnogenols, and many others. Vitamin E and magnesium are helpful too. A diet high in fiber decreases the pressure inside the abdomen, allowing the blood to return from the legs to the heart more easily with less “back pressure.”

❑ **Easy bruising**

Let’s set the record straight. Easy bruising doesn’t mean you’re a weakling. It actually points to a potentially serious nutritional deficiency that can lead to uncontrolled internal bleeding.

Easy bruising is often due to a vitamin K deficiency or a lack of flavonoids (which help keep small blood vessels strong) in your diet. Try supplementing with vitamin K (5 to 10 milligrams daily). (You may have a bit of difficulty finding an adequate-dose vitamin K supplement, but keep trying.) If insufficient vitamin K is the problem, you should see a difference after six to eight weeks. If vitamin K isn’t sufficiently helpful, use a supplement of one of the sources of flavonoids listed above.

❑ **Cracked, callused feet**

It’s true. Most men, and many women, don’t pay much attention to their feet. But we all should...rough skin on our feet can signal serious nutritional deficiencies. If you have cracked feet and heels, your body

lacks the essential fatty acids it needs. Flaxseed oil, 1 tablespoonful daily, is one of the best-balanced sources. Be persistent: Ten to 12 weeks may pass before the cracks disappear. In some cases, it may be necessary to add supplemental zinc too.

Calluses along the edge of your heel mark a deficiency in vitamin A (not beta-carotene). Again, it may take 10 to 12 weeks of supplemental vitamin A (not beta-carotene) to lessen the calluses. A dosage of 40,000 IU daily is safe for adults.

Earlobe creases

Do you have diagonal creases across your earlobes? If so, it might mean you're at higher risk of developing cardiovascular disease. If you're eating right, getting regular exercise, and taking vitamin E, it's probably nothing to worry about. But you may want to have your cholesterol, triglyceride, homocysteine, and C-reactive protein levels checked.

Cracked ear skin

If you have cracked skin behind your ears, your body isn't getting all the nutrients it needs. Add more zinc and essential fatty acids to your diet through pumpkin seeds, sunflower seeds, and fish oil supplements until it's healed.

CLUE # 2: Hair

There's no such thing as care-free hair.

Some women and men spend hundreds of dollars a year at the hair salon in search of shiny, healthy, and care-free hair. But frequent trips to your stylist and high-priced shampoos can't change what a good look in the mirror should tell you.

Whether you have got a dry and sensitive scalp or thinning and dull hair, your diet, not your shampoo, is often the cause of the problem.

❑ **Dry, flaky scalp**

A dry, flaky scalp at any age reflects a diet too high in refined sugars and lacking in fatty acids. Dull, lifeless hair points to the same serious problem, not a buildup of shampoo.

Eliminate those refined sugars! Add dietary sources of essential fatty acids, such as fish, unroasted nuts and seeds, and salad oils. (Roasting nuts and seeds destroys much of the fatty-acid content). In addition, supplementing with at least 1 tablespoonful of flaxseed oil daily plus B-complex vitamins is usually necessary for a minimum of three to four months to restore a normal sheen to hair and eliminate that dry, flaky scalp.

❑ **Sensitive scalp**

If your scalp is always tender to the touch, or if pulling on your hair hurts, try taking cod-liver oil (this works especially well for children), or for adults, try vitamin-D supplements. But be careful; it's possible to take too much vitamin D!

❑ **Premature gray hair**

There might be a natural way to prevent premature graying. Try adding some extra PABA (paraaminobenzoic acid, a B vitamin) to your supplement program. Some people have also found success using the Chinese herbal "ho-shou-wu" or "fo-ti."

❑ **Thinning body hair**

By the time they reach middle age, many women begin losing hair on their heads. Hair loss on a woman's head (except in women who are pregnant, have recently been pregnant, or are taking estrogen) is probably caused by low stomach acid, also known as hypochlorhydria.

As we age, our stomachs stop producing adequate levels of stomach acid and pepsin. This leads to poor digestion of essential proteins and impedes the growth of new hair. By supplementing your diet with hy-

drochloric acid-pepsin capsules, you'll begin to digest and absorb protein properly and your hair loss should stop.

Hair loss on your lower legs and especially an abnormal loss of underarm or pubic hair frequently indicates that you have seriously low androgenic-hormone (DHEA and testosterone) levels in your body. And when you have low hormone levels, your immune system can't function properly.

CLUE # 3: Mouth, Tongue, and Lips

In a routine exam, your doctor usually looks into your mouth at your throat. And, yes, dentists look closely at your teeth and gums. But who takes notice of your tongue?

You should! The tongue is a very important health indicator in the body, and you should learn how to read the changes to it and other parts of the mouth.

Pale tongue

A healthy tongue looks rosy red. Does your tongue look pale in the mirror? It might mean that you're anemic and need more iron in your diet. Liver from organically raised animals is the best source. Also, be careful to look for hidden gastrointestinal bleeding as a cause of anemia.

Scalloped tongue

If your tongue looks a little swollen and "scalloped" around the edges, don't assume that the condition is caused by pressure from your teeth. It's most likely due to food allergies. Have yourself tested right away.

Geographic tongue

Does your tongue look like a geographic map, with smooth areas, raised rough areas, cracks, grooves, and contours? In fact, it's called a

“geographic tongue.” You’re missing folate, vitamin B12, and zinc in your diet. Once again, liver from organically raised animals is a good source for all three. Fresh green, leafy vegetables are good sources of folate; chlorella from the natural food store has both folate and B12.

Very rarely, “geographic tongue” is a genetic and unchangeable condition; however, almost always, it reflects a lack of these nutrients in your body.

❑ Bleeding gums

Periodontal disease can be corrected in many cases by supplementing with coenzyme Q10 and folate. A folate “mouthwash” can be especially helpful in reducing the bleeding.

❑ Canker sores

Do you have canker sores that keep coming back? These are very likely related to food allergies. Watch out for things that trigger the sores and eliminate them from your diet. *Lactobacillus acidophilus* will also help lessen recurrences. Also, avoid toothpaste with “sodium lauryl sulfate.”

❑ Cracked lips

If you have persistent cracks at the corners of your mouth and no amount of moisturizer gets rid of them, look to your diet once again! Your body is probably lacking riboflavin, vitamin B2, and other B vitamins.

❑ Cold sores

We know cold sores are associated with the viral infection herpes. To get rid of these tiny, yellow blisters, you should add more selenium to your diet. Selenium is found in garlic and onions. You may also need to take a regular selenium supplement to control unwanted recurrences.

CLUE # 4: Eyes

❑ Dark circles under the eyes

Your mom's not always right. Dark circles under the eyes don't always mean you're not getting enough sleep. They might point to a more serious problem...especially in children.

Dark circles and horizontal creases on the lower eyelids (called "Dennie's lines") often indicate serious food allergies that can affect behavior patterns in children and adults alike. For example, nearly all children diagnosed as "hyperactive" have allergies and sensitivities, especially food allergies. Try eliminating dairy and refined sugars from your diet and observe the results.

❑ Cloudy eyes/cataracts

If you have cloudy patches in the lenses of your eyes and have been diagnosed with cataracts, you may be suffering from abnormal sugar-insulin metabolism. You should immediately eliminate all refined sugar from your diet. Here's how it works: The lenses of our eyes respond to high blood sugar levels by "helping" to remove some of the excess. Unfortunately, the lenses have nowhere to store this excess sugar, so, over time, it literally "condenses" into cataracts.

There's also a possibility that lactose in cow's milk and other dairy products might have contributed to your condition. There is some evidence that vitamins B2, A, and C, along with zinc and selenium, can slow down vision loss. There's also one exciting study showing that bilberry can stop and even reverse cataracts if it's taken when the problem is at a very early stage.

❑ Red, watery eyes

If you have chronic red, watery eyes, try eye drops with vitamins A and C to control the symptoms and strengthen the surface of the eyes.

This will also clear up any viral infections in your eyes. You'll likely need to visit a nutritionally knowledgeable physician or a compounding pharmacist to obtain these drops.

❑ **Eye hemorrhages**

When the normally white part of the eye turns bright red with blood, you've had a scleral hemorrhage. This could be an early warning sign for hypertension. Be sure to check your blood pressure. You'll also want to think about ways to strengthen your blood vessels with foods containing flavonoids and vitamin C, as well as deep green vegetables for their vitamin K.

CLUE # 5: Fingernails

Like your skin and hair, your nails replenish themselves regularly. Because of this, they're often very visual outward signs of what's going on inside your body.

❑ **Cracked nails**

Maybe you've always felt that your nails just don't grow. They're thin and weak. They bend, chip, and crack easily. Like most problems with your hair and skin, this points to a problem in your stomach involving low acid and pepsin production. Again, not enough protein and nutrients are being digested and absorbed into your body; as a result, the fingernails can't grow properly. Weak fingernails can also indicate an intolerance for refined sugars and in more serious cases point to a weak thyroid.

❑ **White spots on fingernails**

White spots on the fingernails almost always point to a zinc deficiency in the body. The problem is that zinc isn't found in large quantities in many foods. You'll probably need to supplement with zinc capsules. For some people, white spots can mean low levels of pancreatic enzymes or gluten-gliadin intolerance, both of which contribute to zinc malabsorption.

CLUE # 6: Bones and Joints

❑ **Swollen joints**

As we get older, many of our joints begin to ache and perhaps swell a little. Your doctor might call it osteoarthritis and recommend an anti-inflammatory drug that can cause stomach damage.

I recommend taking glucosamine and chondroitin to naturally repair the damaged joint cartilage and prevent swelling. Niacinamide is an essential supplement as well. Many people have also found that by eliminating “nightshade” vegetables such as tomatoes, potatoes, pepper, eggplant, and tobacco from their diets for several months results in a dramatic improvement.

During and following menopause, many women develop tender little lumps at the end joints of their fingers. Hormone-replacement therapy can help, but keep it natural. Extra vitamin B6 and niacinamide can also prove effective.

❑ **Neck and back alignment**

If you have neck or back pain, it's an obvious sign that you should see a chiropractor. But you shouldn't wait until you're laid up in bed before getting an adjustment.

Here are a few simple tests to determine if your alignment is correct:

1. Try rotating your head as far as possible to the left and right. If rotating is limited on either side, you should head to your chiropractor or osteopath for a neck adjustment.
2. Press firmly on the vertebral spines (those little bony bumps) on the back of your neck. Do you feel any tenderness?

* * * * *

It's important when diagnosing and treating yourself that you know exactly what to look for. What are the signs that show you are likely to develop certain diseases...and what are the natural options available? You need to learn how to read your body like a book...and then figure out how to heal it.

And, of course, always consult your physician before making any changes to your current treatment program.

Chapter 10:

Warning: Unsightly varicose veins could be sending you warning sign. Try these 4 simple steps to send them packing

You name it, and I've seen it. Patients with just about any disease or dysfunction you can imagine have walked through the doors of my busy practice at some point. I'm kind of a last resort for a lot of people. They come to see me after conventional medicine has failed them.

But surprisingly it's not always the patients with critical health issues who are the most desperate—or that have been let down the most by conventional doctors. In fact, one of the most common issues that bring patients—women in particular—to see me is the appearance of varicose or spider veins.

If you're 65 or older, you have a greater than 75 percent chance of developing the bluish, swollen lines in your legs that signal you have varicose veins. Spider veins—the varicose vein's smaller and more superficial cousin—are equally as common. Both of these unsightly conditions can occur anywhere from your upper thigh down to your lower leg and ankle.

But these swollen and poorly functioning vessels don't discriminate; they can appear in much younger women as well. It's quite common for them to pop up during pregnancy or soon after childbirth, with up to 40 percent of pregnant women reporting them.

If you have a job that keeps you on your feet all day, or you're carrying around some extra pounds you're at a higher risk for varicose veins. Circulation issues, cigarette smoking, wearing high heels, chronic constipation, long-term bedrest or the weakening of leg muscles can all contribute to the condition as well. And heredity plays a part too, since the condition has a genetic component and tends to run in families.

Unsightly and embarrassing

Varicose veins are rarely dangerous. In fact the main complaint patients have about them is that they're just plain unattractive. Many women find their swollen corkscrew appearance embarrassing and they avoid wearing skirts, shorts and bathing suits, preferring to hide them under long pants no matter the weather or occasion.

But for some unlucky women they can be uncomfortable. The swollen veins can become warm and sore, and in some situations downright painful. In extreme cases the small clots in the vessels can become inflamed, causing something called superficial thrombophlebitis. Superficial thrombophlebitis can be treated with warm compresses, elevating the

Varicose veins don't discriminate

Varicose veins can strike women of any age regardless of their lifestyle, even athletes. Summer Sanders, the most medaled US swimmer of the Barcelona Olympics in 1992, is a good example. Summer, who became a television sports correspondent following her wins at the Olympics, participated in a campaign to raise awareness about varicose veins. Despite her incredibly active lifestyle, Summer developed varicose veins on her legs during her first pregnancy.

legs to reduce swelling, and by taking aspirin or, preferably, white willow bark and clot-busting enzymes such as bromelain.

Varicose veins are a warning sign

But varicose veins aren't always just simply a cosmetic issue. They can also be a warning sign of a far more serious deeper circulation problem called chronic venous insufficiency, or CVI. More on CVI in just a moment, but first let's take a quick look at how veins and circulation work.

When we walk our calf and leg muscles act like pumps sending blood upwards into our body and towards our heart. Throughout our veins there are a series of valves that prevent that blood from flowing backwards.

Both spider veins (which are essentially a smaller version of varicose veins) and varicose veins occur when those valves in our veins stop working efficiently or fail. Poor blood flow... otherwise known as venous insufficiency... causes the blood to collect in the small vessels in your legs.

Eventually the pooling blood begins to clot causing the inflammation and bluish color we see through the skin. The clotting causes even more pressure to build up on the remaining working valves and vein walls leading to even more damage. Over time venous insufficiency can lead to deep veins starting to break down, the condition I mentioned earlier known as CVI.

Blood clots can kill

When you're suffering with CVI your legs become weak and heavy, and they swell with fluid. Areas of your skin, particularly around the ankles, can break down and form dangerous hard to heal ulcers. And most dangerous of all, the chronic swelling and poor circulation can cause a blood clot in the deep veins of your legs leading to more severe inflammation and pain.

This potentially life threatening situation is a condition called deep vein thrombosis, or DVT. The blood clot can easily break off and travel either to your heart where it can obstruct blood flow, or to your the lungs where

it can cause a pulmonary embolism or PE. Either scenario can be deadly.

Although not all people with varicose and spider veins go on to develop CVI, they're a warning signal that shouldn't simply be ignored. In the Edinburgh Vein Study 880 adults were followed for 13 years, and nearly half of those with CVI had their condition worsen. But even more telling was that around 1/3 of the people who only had varicose veins at the start of the study showed the skin changes and other signs of CVI by the end of the study!

4 simple steps to prevent bulging veins

Although varicose veins tend to run in families if you don't have them yet, want to prevent more from forming, or want to improve the appearance of the ones you have, there are some simple diet and lifestyle steps you can take.

Lighten the load: As I mentioned earlier, carrying around extra weight puts increased pressure on the blood that's trying to re-enter your body from your legs. Over time this added pressure causes venous breakdown.

Some simple changes in your diet can help you shed those extra pounds. Start by reducing the amount of sugars, starches and carbohydrates you're eating. You'll be surprised by how fast the weight will start to come off when you make this one change.

Tweak what you eat: Next make sure you're taking in enough fiber. Constipation causes you to strain whenever you have a bowel movement. This straining adds extra pressure to the veins in your legs which are already working hard against gravity to move blood back up to your heart.

The damage to vein walls, and the skin above them, is caused by oxidative stress on the tissues. Green, red and yellow fruits and vegetables, which are naturally high in antioxidants, can help prevent oxidative stress and the resulting vein damage.

Make a move: Exercise will help keep your blood circulating to prevent it from pooling and clotting in your legs. As I mentioned earlier,

it's the movements of the muscles in your legs that keeps blood moving upward out of your legs towards your heart. If you have a desk job, or spend a lot of time sitting, you need to make it a habit to get up and move around more even if it's just taking a stroll around the office or the dining room table every hour to start. And try to find a low impact hobby you enjoy that keeps you active.

Start some supplements: There are several herbs that can help prevent varicose and spider veins, as well as help relieve some of your symptoms if you already have them.

Research on ginkgo biloba suggests the herb may be able to help strengthen vein wall tissues as well as widen and relax blood vessels. I recommend an extract of at least 24% in a dose of 40 mg three times daily.

The antioxidant herb pycnogenol, extracted from a type of French pine bark, has been shown to help with blood flow. In a placebo-controlled randomized study published in the Italian journal *Fitoterapia*, researchers demonstrated that the herb helps to improve venous function. I typically advise my own patients to start off on a daily dose of 200 mg for two months.

Butcher's Broom—an evergreen bush native to the Mediterranean—and Horse Chestnut—a tree common in south Eastern Europe—have long been paired together in traditional medicine to treat varicose veins and hemorrhoids. Several studies have shown that Butcher's Broom can help reduce the swelling associated with chronic venous insufficiency. And research has proven that Horse Chestnut is able to help relieve the symptoms of CVI. I typically recommend 40 mg of Butcher's Broom and 100 mg of Horse Chestnut twice daily.

And finally, I recommend good old vitamin C with bioflavonoids. Vitamin C can help strengthen vein walls and keep them flexible. And studies suggest flavonoids may be able to help reduce vein leakage and swelling in the legs. I recommend 500-1000 mg twice daily.

Chapter 11:

From tooth decay to sinus infections: Sugar cane miracles that pack a powerful punch

Medicine is filled with irony. Professional dentists, doctors, and many, many moms said for years that sugar rots teeth and is generally just plain bad for you. Well, it turns out that's only partially true. Refined sugar IS very harmful to your health. But there are other sugars—particular simple, natural sugars—that have shown some amazing health-promoting abilities. These sugars appear to protect us from tooth decay, ear infections, bladder infections, asthma, sinusitis, and a host of other health problems—even high cholesterol.

Boost your immune system with polysaccharide power

Simple sugars transmit information, particularly to immune system cells that defend us against infection. When these simple sugars combine in chains along with uronic acid, they're called "polysaccharides." Polysaccharides cause the immune cells to be much more active and vigilant against bacteria and other germs. They help in both the prevention and the treatment of infection. Echinacea, aloe vera, and many types of mushrooms are all rich sources of polysaccharides.

Beat bladder infections in 3 days or less, naturally

Approximately 90 percent of all bladder infections are caused by *E. coli* bacteria. (The *E. coli* I'm referring to here are normal inhabitants of all human and animal intestinal tracts. They are not the same as the food-contaminating, deadly, mutant *E. coli* O157:H7 bacteria.) And while most physicians will throw a prescription for antibiotics at you, you can eliminate this painful condition in just a few days—without putting your immune system at risk.

SSKI is a very effective treatment for bladder and urinary tract infections, but there's also another safe, natural option you might want to consider. The simple sugar D-mannose has the ability to detach *E. coli* from the walls of the bladder without upsetting the balance of the friendly bacteria necessary for good health. After being loosened from bladder walls, the bacteria are then rinsed away by normal urination. The *E. coli* aren't killed; they're simply relocated—"from the inside to the outside"—and the infection is gone.

People who treat their own bladder infections with cranberry juice are, in fact, using a form of D-mannose therapy. Cranberry juice, as well as pineapple juice, contains more D-mannose than other foods. However, the amounts are too low to be significantly effective against serious infections.

For adults, 1/2 to 1 teaspoonful of D-mannose, dissolved in water and taken every 2 to 3 hours, will eliminate almost any bladder infection caused by *E. coli*. It also has the great advantage of tasting very good!

Despite being classified as a "sugar," D-mannose is very safe. Very little of it is actually metabolized by the body. Large doses are washed away in the urine, and the amounts not excreted into the urine are so small that they do not affect blood sugar levels—even in diabetics.

D-mannose is available through compounding pharmacies, as well as many health food stores and alternative medicine practitioners.

Never get stuck with another sinus infection

Another substance that has similar abilities is xylitol ("zye-lit-all"). Xylitol is a natural substance, but it actually looks and tastes like table sugar.

One study found that a solution containing 5 percent xylitol blocks the ability of more than half of all harmful bacteria to “stick” to the tissues inside the back of the nose. As with D-mannose, xylitol prevents the bacteria from infecting you without actually killing it.

Dr. Lon Jones, a physician in Texas, pioneered the use of intranasal xylitol in his medical practice. I’ve spoken to Dr. Jones, and he tells me that he has seen a 93 percent reduction in ear and sinus infections in his patients when they spray the inside of their noses regularly with the xylitol solution. Not only does the xylitol appear to “unstick” the bacteria that adhere to the cells lining the nose and sinuses but also stimulates the body’s normal defensive drainage in the back of the nose (where the bacteria causing these conditions usually live).

Rinse away your allergies—maybe even throw away that inhaler

In addition to stimulating nasal drainage, xylitol spray also removes other pollutants that trigger allergic reactions and consequent asthma attacks. (Asthma can be triggered by infection in the back of the nose and sinuses, other upper respiratory infection, chronic sinus problems, and allergies.)

Dr. Jones’ patients control their asthma simply by rinsing away pollutants from the back of the nose on a regular basis. Dr. Jones says that for many of his patients no other asthma medications are needed. This unique nasal spray is available as a product called Xlear (pronounced Klear). Xlear may be available at your own natural food store or compounding pharmacy.

Sink your teeth into this irony: A sugar reduces tooth decay by 80 percent

Believe it or not, there is a simple, safe, good-tasting way to significantly reduce the incidence of dental cavities, and it first appeared in dental and other journals in the 1970s. There’s now no question at all that it really works. It’s called xylitol—the same derivative of a natural, simple sugar that I mentioned above for sinus infection, allergy, and asthma relief.

You see, xylitol can prevent cavities because cavities are caused by the bacteria *Streptococcus mutans* (*S. mutans*).

Dr. John Peldyak, a dental researcher from the University of Michigan who has been involved in most of the dental research with xylitol in this country, has summed up the results of the past 25 years of clinical studies involving xylitol and tooth decay: Chewing xylitol gum once a day provides little protection. Twice a day reduces tooth decay by 40 percent. Three times a day, by 60 percent, and five times a day—80 percent.

Chewing gum containing xylitol is available through many natural food stores and compounding pharmacies or through Xlear Inc. (877-599-5327; www.xlear.com). If you have dental work that doesn't permit chewing gum, a variety of all-natural xylitol lozenges are also available.

Chapter 12:

Keep killer stress at bay for mere pennies a day using this one simple vitamin secret

It's the Rodney Dangerfield of conditions. No one gives stress the respect it deserves. When we're suffering from it we've been taught if we just ignore it, it will go away. (It doesn't, of course.) Even worse, it's seldom taken seriously by those in the medical profession, the very people who ought to know what a threat to your health it actually is.

Yet, astoundingly, at least 60 percent of all doctor's visits can be linked back to stress, according to a 20 year study by the Kaiser Permanente Medical Group. Other clinical studies estimate that stress-related visits may run as high as 75 percent!

We know that stress can increase blood sugar levels, raise blood pressure, suppress digestion and alter your immune system response. Chronic stress can eventually lead to a number of health issues including weight gain, heart disease, memory issues, sleep problems and depression.

Yet the only treatments that your conventional doctor has to offer are heavy-duty—and potentially addictive drugs—such as the benzodi-

azepine Xanax or the antidepressant Prozac. And that's if he takes your complaint seriously enough to even bother with a prescription.

Far too many patients are given a condescending pat on the head and are told they just need to learn to relax. As a result many people turn to "self-treatment" with alcohol or marijuana to cope. But those "solutions" come with harmful side effects of their own.

There is another option, however. It's one you'll never hear about in any conventional doctor's office. But it's so effective that it tops my personal list of preferred treatments for stress relief and overall mental well-being.

Vital vitamin complex key to stress relief

I'm talking about B vitamins, otherwise known as a B complex.

In one randomized, double-blind placebo-controlled study published in the journal *Human Psychopharmacology: Clinical and Experimental* patients were given a high-dose B complex vitamin. After three months, the group that got the B vitamins reported significantly less stress in their workplace.

And there's a good reason for that; B vitamins, and in particular folic acid and B12 and B6, play a critical role in mood and mental function. Without adequate levels of B on board your body is unable to properly utilize amino acids such as tryptophan and tyrosine to form the brain chemicals, or neurotransmitters, which are necessary to deal with stress including serotonin, dopamine, norepinephrine and epinephrine.

Drive down stress with a NATURAL antidepressant

If a B complex alone doesn't drive down your stress and lift your mood you may want to talk with a doctor skilled in natural medicine about the natural antidepressant Deplin (www.deplin.com). Deplin is a powerful activated form of folic acid that, like a traditional B complex, can also be used in tandem with an antidepressant.

Antidepressant failure often caused by low B

In fact, a lack of building block B nutrients lies at the heart of why many re-uptake inhibiting antidepressants fail. When you don't have enough B vitamins available and your neurotransmitter levels drop, antidepressants that are designed to recirculate your available brain chemicals end up having very little to recirculate. This means, of course, that you aren't getting any of the drug benefits, but you're still facing all of the risks and side effects.

Unfortunately, when an antidepressant drug fails far too many docs will simply switch the drug without ever considering that the nutritional well may simply have run dry. But a quality B complex could keep you from ever needing the drug in the first place.

I've found that the majority of stressed patients respond incredibly well to a B complex. A quality supplement will typically only run you pennies a day, and if you're battling stress yourself I encourage you to consider giving one a try.

Chapter 13:

Soothing solutions for anxiety

For some people, caffeine can be a hidden source of anxiety. Caffeine-induced anxiety, or “caffeinism,” occurs most often in individuals from families with blood sugar problems. Eliminating your intake of refined sugar is likely to reduce your anxiety, and, of course, eliminating caffeine will help too.

Vitamin and mineral supplements can also be sources of relief. Niacinamide, a form of vitamin B3, helps most people with anxiety and, to some degree, depression (especially for individuals whose family has a history of blood sugar problems). I usually recommend taking 500 to 1,000 milligrams a day along with a good B-complex vitamin supplement. The B-complex helps “back up” the niacinamide, and it also helps settle anxiety on its own.

Herbal remedies like ginkgo (40 milligrams of a standardized extract, three times a day) and Siberian ginseng (100 to 200 milligrams, three times a day) can also be a big help.

Chapter 14:

The great-tasting way to beat bladder and urinary tract infections

Ninety percent or more of all urinary tract infections are caused by the common intestinal bacterium *E. coli*. D-mannose literally makes it impossible for this particular bacterium to “stick” to the bladder or the rest of the urinary tract, so infections are just “rinsed away” with normal urination. Even better, D-mannose is harmless and tastes good.

For adults, 1/2 to 1 teaspoon of D-mannose dissolved in a glass of water and taken every two to three hours will eliminate almost any bladder or urinary tract infection in about three days.

D-mannose is a simple sugar, but it isn't at all bad for you—not even for diabetics. See, very little of it is actually metabolized by the body. Large doses are washed away in your urine and the amounts left behind are so small they don't affect blood sugar levels.

You can get D-mannose from most natural food stores.

Chapter 15:

Stomp out chronic fatigue and get back your old get-up and go

If you've been diagnosed with chronic fatigue syndrome, the first thing you should do is take an adrenal function test. This test measures how the adrenal glands respond to stress of any kind, physical or mental. Adrenal glands are stress-response glands and should make considerably more of each steroid hormone when stressed. It wouldn't be normal for our hearts to beat at the same rate or even a little slower after exercise than before, and it isn't normal for adrenal glands to make the same amount of hormone after stress as before. When they make less, weakness becomes a serious problem. They "go all out" just to keep you walking around. When they're called on to do more...exercise, working hard...they just can't do it.

If your adrenal glands are overstressed, stress reduction is a necessary part of recovery. But even though it's necessary, it can't usually do the job on its own. So you'll want to begin taking a number of supplements to combat weak adrenal glands, beginning with cortisol, DHEA (15 milligrams per day), and salt. Extra salt is important in the production of a hormone called aldosterone. The main function of aldosterone is to regulate minerals like potassium and sodium, and it is a major factor in enabling our bodies to retain salt. You couldn't survive if your body

didn't retain salt. If you're not eating much salt, your body has to make more aldosterone to make up for it. But if salt intake is high, it's actually normal for your adrenal glands not to make any aldosterone at all. So, if you eat enough salt, your adrenal glands don't need to make aldosterone, and that saves them some work.

Extra salt, cortisol, and DHEA help to rest the adrenal glands so they have more energy to repair themselves. But, you can help the repairs go even faster with the right diet, nutrients, herbs, and other supplements.

People with weak adrenal glands should never follow a low-carbohydrate diet. Weak adrenal glands are among the causes of low blood sugar levels, and a low-carbohydrate diet is meant to control blood sugar. Perhaps the most surprising nutritional recommendation given for strengthening adrenal gland functioning is incorporating six or more pieces of licorice (with no added artificial color or sugar) into your diet daily. Licorice contains substances that slow the liver's breakdown of steroid hormones.

In addition to these dietary modifications, vitamins A, E, and the entire B complex are thought to help the functioning of the adrenal glands. Usually, any good multivitamin and B-complex supplements from a natural food store will contain enough. Other supplements found to be helpful in treating weak adrenal glands are "Adren-Plus" and an "adrenal glandular." Adren-Plus is a combination of botanicals that have been shown to improve adrenal health. Adrenal glandulars are whole, dehydrated, animal adrenal cortex.

Chapter 16:

The natural depression solution to try before St. John's wort

Aided mightily by the media, many people have the impression that St. John's wort is the only alternative treatment for depression. There's no doubt that St. John's wort is often effective, but it's actually one of the last natural treatments to try. One of the basic principles of nutritional and natural medicine is to always replace any "missing" essential nutrients first before turning to or adding other natural treatments.

In a large number of cases, depression is actually caused by a neurotransmitter deficiency, which can be treated by supplementing with relatively large quantities of the essential amino acids the depressed individual is missing, along with any supporting nutrients or metabolites.

Tryptophan, tyrosine, and phenylalanine are all especially common deficiencies, so have your levels of these checked and corrected before turning to or adding St. John's wort.

You'll need a doctor's help testing your levels of amino acids and determining how much of each to take to bring your levels back up to normal. Contact the American College for Advancement in Medicine (800)532-3688 or www.acam.org for a list of natural physicians near you.

Chapter 17:

Say goodbye to those dreaded “cottage cheese” thighs with my “Beat the Cellulite” plan

If you're at least 30 and female, chances are cellulite is already a reality for you. The appearance of dimpled skin—sometimes described as looking like orange peel or cottage cheese—is a nearly universal complaint for women over a certain age, plaguing at least 80 to 90 percent of women.

Cellulite can appear anywhere on your lower body... on your legs, hips or backside... regardless of your weight or physical fitness levels. And while cellulite isn't an illness, it is the result of the breakdown of healthy fat and connective tissue, much like we see with the breakdown of healthy joint tissues in arthritis.

Although cellulite has been studied quite a bit, it's still poorly understood. It can't simply be exercised away and it doesn't completely disappear with diet. And most doctors will simply shrug their shoulders if a woman bothers asking about how to treat it.

That's why you might be surprised to learn that there ARE some things you can do to reduce the appearance and progression of cellulite.

I'll tell you more about them in just a moment, but first let's take a closer look at exactly what cellulite is.

Connective tissue break down

Cellulite, also known as gynoid lipodystrophy or GLD for short, happens when the normal structure of the connective tissue breaks down, and the surrounding fat cells become water-logged and swollen.

The connective tissues in your body are made up of collagen, elastic fibers, hyaluronic acid containing “goo,” proteoglycans and glycoproteins (substances that hold everything together on a cellular level). Together these materials are responsible for the movement of nutrients, fluid, oxygen and waste products in and out of your cells.

But when they become in-flamed and swollen the damaged tissues become less effective at their job. They start to suffer from a lack of nourishment, connections start to fail and eventually the tissues break down. While some of the fibrous connections remain, the cells around them are bloated and swollen producing that classic cellulite appearance.

Exposing the cellulite “curse”

There are several reasons why cellulite first appears, starting with genetics. If your mother had a significant amount of cellulite, chances are you will too.

Estrogen also plays a key role in the development of this unwelcome condition. Since women have more estrogen in their bodies than men, cellulite tends to be more of a woman's problem. Some guys do get it, but it's much rarer.

The last factor is one that you do have some control over, and that's lifestyle. If you happen to be overweight—a common problem as people age—you have a greater number of fat cells. Since fat cells produce estrogen, the more fat you're carrying around the more estrogen you're producing. And the more prone you will be to cellulite.

Losing weight can help reduce your estrogen levels improving the appearance of existing cellulite and discouraging new cellulite from forming.

Turn the cellulite tide

Besides weight loss, there are a number of other tricks you can try to turn the tide against cellulite.

Move every day to keep cellulite at bay: As I mentioned earlier, physical fitness isn't a guarantee that you won't experience cellulite. But, on the other hand, exercise is associated with less inflammation of the connective tissues.

In the real world that means that getting up and moving more can help your healthy connective tissues STAY healthy so they don't break down, leading to more cellulite. I typically recommend yoga or Pilate's to my own patients to keep the blood circulating, and to build the underlying muscle.

Ditch your pro-cellulite diet: Anti-inflammatory foods can help keep your connective tissues in tip top shape. But that's not the only way diet can help.

Eating too much salt, sugar, carbohydrates or unhealthy trans-fats can encourage cellulite to develop; cutting back on all of them can help keep your skin smooth and tight. A great way to do just that is by making the switch to the delicious Paleo diet, which focuses on the natural meats, fruits, vegetables and nuts our ancestors would have eaten. Going Paleo will not only help you get the proper amount of healthy fats and proteins, it can help lower your insulin levels as well. This is key because when your insulin levels drop you will naturally shed some of that excess estrogen-hoarding fat you've been carrying around.

Take toxins out of the mix: Toxins of any sort including food preservatives, heavy metals such as lead and mercury, mold and environmental chemicals can act as irritants on the connective tissues. This can cause those tissues to begin to break down forming the dimpled skin we all love to hate.

But you can help avoid new cellulite from appearing by reducing the toxins you're exposing yourself to by eating organic foods, dropping

refined foods from your diet, switching from farmed fish to wild caught and sustain-able seafood instead, stopping smoking, ridding your home of mold and choosing cleaning and body care products that are free of harsh chemicals and metals.

Delve into the drug connection: Certain drugs can cause cellulite to get worse. Chemical—non bio-identical—estrogen replacement drugs are the most obvious culprits. But antihistamines, beta blockers (commonly used for high blood pressure, cardiac problems, and migraines) and thyroid medications can all contribute to tissue breakdown, and cellulite, as well.

If you're on any of these drugs and are concerned about the appearance of cellulite, talk with your doctor about potential alternatives. Reducing your antihistamine use and switching to bio-identical hormones may help.

Consider a nutrient cocktail: Mesotherapy, an injection technique used to direct substances into the mesodermic or connective tissue layer of the body, can be a very effective way to fight cellulite. I was first trained in the technique in 2004 in Southern France and in my clinic we use an injection gun to assure that we're getting exactly the right amount of nutrients into each injection.

In the case of cellulite, we inject a cocktail of nutrients including phosphatidylcholine (the critically important phospholipid that lines our nervous system and much of our connective tissue), caffeine, vitamins A and C, various amino acids, and an herb called butcher's broom.

After several mesotherapy sessions women typically find that the dimpled skin on their legs, thighs and buttocks is noticeably smoothed out. But keep in mind that mesotherapy isn't a quick-fix technique, it can take some time and it can also be pricey.

Try a topical instead: If you're having trouble finding someone to administer mesotherapy in your area, or you find the price is too steep for your pocketbook right now, a topical approach might be just what you're looking for.

In my own clinic we have a compounding pharmacy where we produce a cream with hyaluronic acid that penetrates into the tissues delivering vitamins, caffeine, and phospholipids directly into the damaged connective tissue.

A holistic medical doctor in your area can help tailor a topical cellulite-fighting formula for you, or you can try one of the cellulite creams on the market. There are several natural ingredients that show great promise in the fight against those dreaded cottage cheese thighs.

Vitamin A is involved in the formation of those glycoproteins I mentioned earlier. These important proteins help to hold everything together on a cellular level and play a critical role in the health of connective tissues. Vitamin A may be able to help build collagen and restore elasticity to skin. You'll find vitamin A added to a number of skin products designed to improve skin appearance and reduce cellulite.

Caffeine helps break down fat tissue while enhancing the tightening of underlying connective material. Most topical cellulite formulas contain caffeine.

Both butcher's broom and forskolin, the active ingredient in the herb gotu kola (Asiatic centella), can stimulate blood capillaries and improve microcirculation within tissues. This means they can help reduce the fluid retention that's seen with cellulite improving the appearance of the skin. These herbs are often included in over the counter and compounded cellulite products.

Silicon is one of the building blocks of connective tissue and plays a critical role in the formation and reformation of the proteoglycans I mentioned earlier.

A personalized plan

In my clinic we will often combine a number of these techniques to tackle their cellulite. We work with people on their lifestyle issues such as reducing stress and adjusting their diet and exercise, and we utilize a

number of topical, injectable and oral natural remedies to strengthen underlying tissues.

We carefully evaluate the buildup of various toxins in the fat cells in the body and create a plan for reducing each person's toxic burden. (You can start reducing your own toxic load using some of the tips I shared above.) And we perform hormone testing and work to restore your hormone balance. You can talk with your own doctor about having your hormones tested.

Manual therapies such as heavy kneading of the affected tissues, and mechanical treatments such as laser therapy and ultrasonic therapies can have their use in addressing cellulite, but they don't get at the root of the problem and should generally be considered only after all the other avenues have been explored.

Chapter 18:

Breathe easy with these safe, natural asthma remedies

Eighty percent of asthmatic children have low levels of stomach acid and pepsin. This hurts digestion and lowers nutrient absorption, gradually increasing food allergies. Stomach malfunction impairs vitamin B12 nutrition. In childhood asthma, a series of vitamin B12 injections often eliminates asthmatic wheezing entirely. Depending on the child's size, doses range between 1,000 and 3,000 micrograms of vitamin B12 daily, and taper off both the quantity and frequency according to the response. If you find the vitamin B12 hasn't reduced symptoms at all after 2 or 3 weeks, you should discontinue the daily injections.

For both childhood and adult asthma, magnesium and vitamin B6 intravenous injections given during acute attacks almost always eliminate them, although sometimes you need more than one injection to do the job. Both of these nutrients are also good to take orally, and can cut down on the frequency of asthma attacks. For adults, I usually recommend taking 50 to 100 milligrams of vitamin B6, along with 200 milligrams of magnesium three times a day.

As far as herbal treatments for asthma, *Boswellia* is the best bet. In one clinical study, 80 patients with chronic asthma were treated with 900

milligrams per day of *Boswellia* gum resin. Seventy percent of patients taking the *Boswellia* improved. Improvements were observed for shortness of breath, number of attacks, and respiratory capacity as well as indicators of inflammation.

These treatments are all good for reducing the symptoms of asthma, and sometimes they can even eliminate it altogether. But for adult asthma, allergy elimination or desensitization are usually necessary in the long run. For help with allergy screening and treatment, contact the American Academy for Environmental Medicine at (316)684-5500 or www.aeonline.org.

Chapter 19:

Wipe out migraines in minutes for less than \$10

There are so many people suffering from migraines who just aren't getting the relief they need from the expensive patent medicines their doctor has prescribed to them. Most of the time, these people are more than a little skeptical when they're told there's an all-natural, safe, and cheap solution that can stop migraines in their tracks. Who can blame them for doubting it? After all, they've heard similar claims hundreds of times before. But it usually only takes a few minutes to convince them—because that's how long it takes for this treatment to work.

It involves a simple injection of magnesium and vitamin B6. Magnesium appears to do most of the “work” in relieving migraine pain. Vitamin B6 helps the magnesium do its job. In general, relatively rapid intravenous injection of magnesium quickly re-regulates and relieves acute muscle contraction/relaxation disorders. (These injections are also useful for recurrent back pain.)

Even better, the shot itself—needle, syringe, and contents—usually costs less than \$10. And a nurse can teach you how to give these injections to yourself right at home.

Chapter 20:

A vitamin victory over psoriasis

If you're one of the 5 million people in the United States suffering from psoriasis, you know just how resistant to treatment it can be. Conventional medicine generally treats psoriasis with topical cortisone preparations. While these can alleviate the symptoms of psoriasis, there are a number of potential side effects including bruising, changes in skin color, and dilated blood vessels. In addition, it is common for a patient to become resistant to the cortisone preparation after several months of treatment, which means that dosages must be consistently increased.

Food allergies and sensitivities are common in most cases of psoriasis, so thorough testing and desensitization should be done under the supervision of a physician. Once allergies have been determined and treated, there are a number of vitamins, minerals, and herbs that can drastically improve—even eliminate—psoriasis.

1.25 dihydroxy vitamin D is a naturally occurring metabolite of vitamin D that can be very effective for most cases of psoriasis. However, it is available only by prescription through compounding pharmacists. To locate a compounding pharmacy in your area, contact the International Academy of Compounding Pharmacists at (800)927-4227 or www.iacprx.org.

Vitamin B12 and folic acid are also helpful in treating psoriasis. To achieve the highest level of relief, these nutrients should be taken over the same period of time. (Just keep in mind that it can take two to three months to experience results.) Because the dosages required are fairly large—1,000 to 3,000 micrograms of vitamin B12 daily and 50 milligrams of folic acid taken two or three times per day—you might need a prescription from a doctor skilled in nutritional medicine. For a referral to one in your area, contact the American College for Advancement in Medicine at (800)532-3688 or www.acam.org.

The rapid cell division that occurs in psoriasis is attributed to an abnormal ratio of two different cell growth-regulating factors. This ratio can often be normalized with an herbal remedy called Forskolin, which is often used in Ayurvedic medicine. Forskolin does not appear to have any toxic side effects and is available in many health food stores. Most preparations offer 5 milligram tablets and capsules; take two or three of these daily, for a total dose of 10 to 15 milligrams per day.

In medicine, the element nickel is usually thought of as a “bad guy”—a frequent cause of skin reactions to jewelry (nickel dermatitis). But, as ironic as it sounds, relatively recent research has shown that nickel can be a very effective treatment for psoriasis when it’s combined with another natural substance called bromide. Often, psoriasis disappears completely. Other times, it’s substantially improved. It’s worth trying—especially since the quantities of nickel and bromide required are quite low and adverse reactions are few.

For more information on some specific nickel-bromide preparations, contact Loma Lux Laboratories at (918)664-9882 or www.lomalux.com.

Chapter 21:

Heal cuts and bruises faster than ever

Digestive enzymes are one of the most useful tools for accelerating the healing process and suppressing inflammation.

Pancreatin (usually from a beef, pork, or lamb source), bromelain (from pineapple), papain (from papaya), and other “plant source” digestive enzymes are all effective. Three or four tablets or capsules should be taken three or four times daily on an empty stomach. Try to avoid food for at least an hour (if possible) before and after. Taking the enzymes before unavoidable trauma (like surgery), as well as after, makes the treatment even more effective.

If the injury is an accident, you can start taking the enzymes as soon as reasonably possible, and you should continue until you’re completely healed.

Enzymes are nontoxic and are safe for even small children, although they don’t need as much to do the same job. For children too small to swallow capsules or tablets, chewable enzymes (which usually are pineapple- or papaya-flavored and taste good) are very useful.

If you’ve never tried this approach before, I think you’ll be pleasantly surprised: Swelling goes down more rapidly, there’s less pain, and injuries

are “back to normal” much more quickly. Enzymes are available at any natural food store, as well as through online vitamin distributors.

In the case of people who bruise very easily, supplemental vitamin K is a good idea. Severe vitamin K deficiency causes uncontrollable bleeding, but mild to moderate degrees of such a deficiency don't ordinarily cause such obvious problems. Easy bruising is one physical sign of such mild to moderate deficiency. While easy bruising can also be due to a lack of flavonoids (which help keep small blood vessels strong), it's definitely safe and worth a try to use supplemental vitamin K (5 to 10 milligrams daily) to try to stop the problem. After six to eight weeks, it should be possible to tell whether it's helpful or not.

Alternative Health Resources

American Academy of Environmental Medicine (AAEM)

Phone: (316)684-5500; www.aemonline.org

American Association of Naturopathic Physicians

Phone: (866)538-2267; www.naturopathic.org

American College for Advancement in Medicine (ACAM)

Phone: (888)439-6891; www.acam.org

International College Integrative Medicine

Phone: (419)358-0273; www.icimed.com

Nutrition & Healing

www.nutritionandhealing.com

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Toss your sunscreen and step out of the shadows!

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Harnessing the healing power of light

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