

Marc S. Micozzi's

logical health
ALTERNATIVES



THE BEST OF DR. MICOZZI VOLUME II

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CHAPTER 1: THE SIMPLE VITAMIN CURE FOR ONE OF MEDICINE'S MOST MYSTIFYING CONDITIONS

I heard an interesting story recently from a colleague about a man whom I'll call Bill.

One night, while watching TV, Bill began to feel nauseated, sweaty, and out of breath. He could feel his heart racing.

Suddenly, his legs began to shake and jerk. Bill rushed to the ER, where he told doctors he had not really felt right for about a year. He'd been dizzy (hint 1), tired (hint 2), and depressed (hint 3). And in the previous two weeks, he had begun to feel off balance when he was standing (hint 4).

Doctors did find that Bill's blood pressure dropped when he stood up. But they didn't take any of the other hints, and sent him home with no answers and no help.

Bill figured that these seemingly unconnected health issues were due to aging and he would just have to live with them. But within a few days, the problems started all over again and he went back to the ER.

This time, doctors observed that Bill walked with an abnormal, flat-footed gait (major hint 5), which could be a sign of a neurological disorder like multiple sclerosis or Parkinson's disease. However, tests for both of these conditions came back normal.

Finally, the doctors did a basic physical exam (when all else fails, examine the patient). They discovered that Bill had impaired sensation in his feet and that he couldn't feel the floor when he was standing. These findings are consistent with peripheral neuropathy—a condition often caused by diabetes. Excess sugar in the blood slowly damages the small blood vessels that supply peripheral nerves in the hands and feet.

But Bill didn't have diabetes. Nor did he have a circulatory problem or a degenerative nerve disease. Finally, after ruling out everything else, doctors concluded that Bill had a simple deficiency of vitamin B12. Correcting it completely cured his neuropathy. And boosting his intake of all B vitamins helped with his dizziness, fatigue, and depression.

Why you probably aren't getting enough essential "neurovitamins"

This sounds simple, right? Scientists have long known that B vitamins are important for every cell in the body. And the effects of B vitamins on brain and nerve tissue are so well-established that in Europe they call them "neurovitamins." In particular, insufficient B12 can first manifest in sensitive nerve cells, which may lead to peripheral neuropathy.¹

But despite all of this knowledge, Bill's case is not rare. In the famous Framingham Heart Study, researchers found that 39% of the nearly 3,000 subjects had B12 levels in the low-normal range. More than 16% had below normal levels, and 9% had outright deficiency.²

All this in the "well-nourished" USA, protected by the government's so-called "experts" on nutrients—and dosages.

Normally, B12 comes from the diet, but the best sources are eggs, meat, and dairy—foods we've all been told to avoid. Yet even if you (wisely) ignore the pseudo-science and eat these healthy foods, research shows that about 10 to 30% of all people over age 50 may still have trouble digesting vitamin B12.³

Why? First of all, you need a healthy gastrointestinal tract to absorb B12 into your bloodstream. Gastrointestinal surgery can interfere with B12 absorption, as can IBS and other bowel disorders.

Stomach acids help the body absorb B12, so beware of medications that reduce these acids. A recent study of nearly 210,000 adults found that the people who took proton-pump inhibitor drugs like Prilosec, Nexium, and Prevacid for two years had a 65% increase in vitamin B12 deficiency. Other types of antacids—most notably, Tagamet and Pepcid—increased B12 deficiency by 25%.⁴

But stomach acid-suppressing drugs aren't the only pharmaceuticals that can hamper B12 absorption. A common example is Metformin, an otherwise safe and effective drug for diabetes.⁵ That's why I recommend that everyone who takes Metformin also take a vitamin B-complex supplement.

Statins are another culprit. I've warned how these overused anti-cholesterol drugs can cause serious side

effects—and one of those is neuropathy.⁶

Even if you don't take any of these medications, a vitamin B-complex supplement is a good idea. Make sure it has at least 5 to 10 mg of B6, 20 to 40 micrograms of B12, and 800 to 1,000 micrograms of folic acid.

The reason you never hear about natural cures like vitamin B12

So what have we learned from Bill's story? First of all, that there is plenty of research showing that vitamins and dietary supplements promote health, prevent illness, and reduce the risk of chronic diseases. But whenever people speak about the ability of vitamins to actually "cure" medical conditions like neuropathy, it is often in hushed tones.

You see, supplement manufacturers are actually not permitted to tell consumers about the health benefits of dietary supplements because of the FDA's bureaucratic regulations designed to "protect" consumers from false claims. Unfortunately, these laws also prevent companies from making claims that are 100% true.

But aside from all of the legalities, Bill's story also illustrates the mainstream bias against dietary supplements. After all, drugs are the treatments that are supposed to "cure" diseases, right? Unfortunately, all too often drugs only mask the symptoms that the body uses to tell you something is wrong. Drugs generally don't address the root causes of those symptoms.

Furthermore, drugs often *cause* side effects of their own. Ironically, these side effects frequently result from a drug interfering with the body's absorption and utilization of critical vitamins and other nutrients.

There is a lot of talk these days about complementary and integrative medicine.

A real and practical example would be to "complement" drug treatments by giving patients the dietary supplements they need to correct the deficiencies caused by these drugs, and to "integrate" this routine procedure into the practice of medicine.

Unfortunately, this very basic step is usually not taken—out of ignorance, arrogance, or perhaps even intention. In fact, as Bill discovered, vitamins and dietary supplements are usually the choice of last resort on a

mainstream doctor's diagnosis and treatment list.

Don't let what happened to Bill happen to you. Take your daily B vitamins, and choose doctors who understand the crucial role that vitamins and other nutrients play in keeping you healthy.

The ABCs of vitamin B

The letters given to vitamins don't really have biological significance—they just reflect their arbitrary order of discovery.

And when it comes to B vitamins, the numbering is also arbitrary. There are eight different types of these vitamins: B1 ([thiamin](#)), B2 ([riboflavin](#)), B3 ([niacin](#) or [niacinamide](#)), B5 ([pantothenic acid](#)), B6 ([pyridoxine](#)), B7 ([biotin](#)), B9 ([folate](#) or [folic acid](#)), and B12 ([methylcobalamin](#) or [cyanocobalamin](#)).

It's interesting to note how the various B vitamins got their names. For instance, folic acid, which was first isolated from spinach in 1941, was named after *folium*, the Latin word for leaf.

Folic acid must first be chemically reduced (deoxidized) in the body with antioxidants. It's then used in important metabolic processes such as DNA synthesis, cellular reproduction, and homocysteine metabolism—all of which are critical for heart and nerve health.

Folate is a type of folic acid that was developed by the dietary supplement industry. Because folate doesn't have to go through folic acid's deoxidizing process, it's more stable. That's why you'll find that some supplements contain folate rather than folic acid.

Likewise, stability is an important issue for B12. This vitamin comes in two forms, methylcobalamin and cyanocobalamin.

People see the "cyano" prefix and assume it has something to do with cyanide, and indeed, a trace amount of cyanide is present in cyanocobalamin. But it is completely safe and no less healthy than methylcobalamin.

In fact, cyanocobalamin is the most common form of B12 for good reason. Methylcobalamin can be chemically unstable, meaning it can break down before it ever gets into your body. Thus, high-quality dietary

supplements are made with cyanocobalamin to ensure stability and potency during manufacturing, shipping, and while they're sitting on your shelf.

CHAPTER 2: THE DRUG—YES, DRUG—THAT MAY ACTUALLY SLOW AGING

I have long recommended the drug metformin for type 2 diabetes and managing blood sugar. But it turns out this surprising drug can do much more. Metformin can reduce the risk of developing other chronic illnesses like cancer¹ and cardiovascular disease², and may also help improve memory.³

Even more amazingly, researchers have recently found that this multitasking drug may actually be able to *extend your life*.⁴

It's rare for me to agree with mainstream medicine that a commonly used drug is really safe and effective, let alone the preferred treatment for any type of medical condition. But when I uncovered the well-buried history of metformin, it was a lot less surprising.

Metformin is actually derived from an ancient herbal remedy known as French lilac, or goat's rue. Herbal historians have traced French lilac-based treatments as far back as ancient Greece, Rome, and medieval Europe, where they were used for people with sweet-tasting urine (a hallmark of excess blood sugar).

In the 1950s, the first French lilac-based diabetes drug was launched in Europe. It migrated to the U.S. in the 1970s under the name glucophage. Now known as metformin, this herb-based treatment is thought to be the most prescribed diabetes drug in the world. It is the only drug that manages blood sugar while also preventing the circulatory complications of diabetes.

So how does this simple herb-based drug actually help you live longer?

The mechanics of aging

Researchers believe metformin's longevity effect is due to a cellular process called hormesis.

In simple terms, hormesis shows that a small to moderate amount of a "bad" thing can actually have positive effects on health and longevity.

In metformin's case, that "bad" thing is reactive oxygen species (ROS)—otherwise known as oxidants or free radicals. Scientists recently discovered that through

a complex process, metformin increases ROS.⁴ The body's natural antioxidants neutralize the harmful effects of these ROS. But before that happens, the extra ROS trigger protective defenses in the body that help extend lifespan.

This discovery confirms what I've always maintained—that the pop-science antioxidant theory is not so simple. Mainstream Johnny-come-latelys and natural know-it-alls like to throw around the term antioxidant like some kind of magic incantation, without the slightest idea of what it means biologically or chemically.

In reality, body chemistry is much more complicated than just “oxidants are bad” and “antioxidants are good”—as scientists have learned with metformin.

Wouldn't it be amazing if these scientists have actually discovered the all-important mechanism of true antiaging? All from a simple, time-tested drug, which is really an ancient herbal remedy.

Don't forget! Metformin's one negative side effect—and how to avoid it

It's important to note that taking Metformin causes your body to absorb fewer B vitamins. So if you use Metformin, you must also take a good B-complex vitamin supplement—as I recommend to everyone.

CHAPTER 3: URGENT WARNING FOR WOMEN! Common drug increases risk of deadly breast cancer

There is now evidence that antidepressants—one of the most common types of prescription drugs—may contribute to one of women's greatest worries. Yes, I'm talking about breast cancer.

Breast cancer affects one in eight women, and unfortunately, depression is also very common in women—in fact, twice as prevalent as in men.¹ And since mainstream medicine has so little else to offer, nearly one out of four women in their 40s and 50s are prescribed dangerous antidepressant drugs²—just at the age when their risk of breast cancer begins to climb.

You see, about 70% of breast cancers are sensitive to estrogen, meaning that the hormone helps them increase in size.³ Recently, researchers have found that the SSRI antidepressant paroxetine (commonly marketed as Paxil) has an estrogen-like effect in the body, promoting the growth of breast tumors.⁴

Despite this evidence, last year the FDA approved paroxetine for the treatment of hot flashes and other menopausal symptoms.⁵ Amazingly, the FDA's own Reproductive Health Drugs Advisory Panel voted 10 to 4 *against* approval. You read that right—despite an overwhelming rejection by scientific experts, the FDA government bureaucrats went ahead anyway and gave paroxetine the thumbs up for menopause symptoms.

The advisory panel voted against approval because of the severe side effects associated with SSRIs, and only minor benefits (more on this in just a moment). It also cited these drugs as highly addictive.

It is one thing to wait two to three weeks for SSRIs to take effect, but then there is no reasonable strategy for ever getting off them. Sounds like the perfect drug, right? At least for big pharma.

The FDA trumpeted its decision to approve paroxetine, marketed under the name Brisdelle, for menopausal symptoms as a “non-hormonal, non-estrogen alternative.” The idea is that since estrogen-like hormone treatments for menopause cause breast cancer, Brisdelle can be given to lower the risk of getting breast cancer.

Too bad Brisdelle acts like estrogen and promotes breast cancer anyway! The truth about Brisdelle can be found in just four of its letters: s-e-l-l.

But the FDA also apparently ignored testimony citing another serious risk associated with antidepressants like Brisdelle/Paxil...

More harm than good

Sadly, research shows that antidepressants potentially benefit only about one in seven people with depression.⁷ And doctors have no idea how to screen patients to determine in advance those few who might really benefit. So they just prescribe different antidepressants using the trial and error approach.

But unfortunately for women, your doctor's error is potentially your breast cancer...or even your suicide.

That's right—scientific evidence shows these drugs can lead to suicidal behavior in menopausal women.

"The data clearly show that the women taking paroxetine were more likely to have suicidal thoughts and behaviors than the women taking placebo. This was true even on the small dose of 7.5 mg," said Mary Carol Jennings, MD, of the National Research Center for Women & Families, in FDA testimony. "The CDC tells us that women between the ages of 45-54 have the highest rates of suicide in the country. That is the same age group most likely to take a drug for hot flashes."⁶

In my former forensic medical practice, I personally investigated several cases of suicide in depressed people who were living, working, and somehow getting along okay. Until they went to a psychiatrist and were "helped" by being prescribed SSRI antidepressants. Then they suddenly committed suicide.

Of course, that's not the case with everyone. Some women do benefit from antidepressants. But why take the risk when there's a safe, effective, natural alternative?

The perfect non-drug solution for depression and breast cancer prevention

There's compelling recent evidence that vitamin D can help fight depression and breast cancer in older women. In fact, if mainstream doctors were not so focused on drugs, they might actually see that vitamin D—rather

than antidepressants—makes a strong case for being the "magic bullet" for women.

One new study of nearly 82,000 women ages 50-79 found that women who consumed 800 IU daily of vitamin D—primarily from food sources like meat, fish, dairy products, and eggs—were 20% less likely to become depressed over a three-year period than the women who got just trace amounts of the vitamin.⁷

Another new research review looked at the results of 25 separate studies that measured vitamin D levels in 17,332 people at the time of their cancer diagnosis. Higher vitamin D levels were linked to significantly better survival rates for people with breast or colon cancer or lymphoma. There was also a positive effect for lung, stomach, prostate, and melanoma skin cancers, as well as leukemia.

In addition, a recent study that showed that women with breast cancer who had higher vitamin D levels had double the survival rate of women with lower levels.

It's important to note that all of these studies were in populations where the "high" vitamin D group of women actually just had "sufficient" levels of the vitamin. Imagine if all women were at the truly optimal levels shown by research to be most beneficial to their health?

I recommend a dose of 5,000 IU per day of vitamin D for all women. For those who don't want to add more pills and capsules to their daily routine, vitamin D is available in potent, liquid forms that can be conveniently added to low-fat milk or juice—or taken directly, as the dosage is usually just a few drops, depending on the product.

CHAPTER 4: BIG TIME HEALTH BENEFITS FROM A TINY FRUIT

Wild cherry isn't just a popular flavor of Smith Brothers cough drops. This tart fruit has become a sweet sensation with savvy healthcare practitioners because of its many medicinal properties.

Traditional healers have known about tart cherries' anti-inflammatory and antibacterial characteristics for centuries. Henry VIII was said to be a fan of the fruit's ability to relieve inflammation of the joints caused by gout. And in later years, a variety of studies have found that tart cherries contain the natural sleep hormone melatonin, making them a good option for insomnia and jet lag.

Now, researchers are discovering that this ruby-red fruit is also a powerful antioxidant that may significantly reduce the risk factors for cardiovascular disease, diabetes, and cancer. Evidence also suggests tart cherries may even help you lose weight (as long as you don't bake them into a pie, of course).

I'll tell you all about the exciting new research on tart cherries in a moment. But first, it's interesting to look at the history and folklore of this popular fruit.

Cherries' surprising family tree

Wild cherries are actually members of the plum family. And we all know that dried plums—better known as prunes—have powerful medicinal properties.

But, of course, the government doesn't like to acknowledge that. At a conference I organized and chaired in Washington, D.C. during the 1990s, I witnessed a dramatic debate between a FDA rep and the world-famous botanist Varro Tyler.

The FDA rep warned that we can never say that prune juice is a laxative. Dr. Tyler dared him to drink a bottle of prune juice there and then, and still try to claim it was not a laxative. Of course, the FDA flack didn't drink the prune juice. But he and his successors all drink the Kool-Aid when it comes to their anti-scientific and anti-common sense regulations.

Prunes don't get "grandfathered" (or "grandmothered") past these ridiculous regulations even though they've

been used as laxatives for a very long time—and are certainly safer than the packaged commercial laxatives relentlessly marketed for "regularity" to people who don't need them.

Like prunes, cherries are one of nature's original dietary supplements. The wild cherry is thought to be a natural hybrid between the sweet cherry and another species grown in or near Persia.

The tart fruit was cultivated around the Caspian and Black Seas and introduced to the Greeks by Alexander the Great. The Romans then discovered it and passed it on to the Britons more than 2,000 years ago.

Around 1640, Massachusetts Bay colonists planted the first cherry tree in America. Of course, by the 1700s, cherry trees had spread south to the Potomac River, where George Washington introduced them into American folklore. However, the famous cherry trees that grow in Washington, D.C. today were actually a gift from Japan before World War II. They are about the only thing that still blooms in that blighted location.

Tart cherry studies show sweet benefits

The most well-known use of tart cherries is to relieve the symptoms of gout. The famous medicinal botanist Jim Duke, PhD, formerly of the USDA Agricultural Research Center, told me that cherry juice is the best treatment for inflammation of the joints caused by gout, and there's plenty of research to back him up.

In recent years, tart cherry research has blossomed even further. Here's a look at the most fruitful findings.

Cardiovascular disease. Mice that were given tart cherry powder for five months had significantly reduced C-reactive protein and hardening of the arteries—risk factors for heart disease and stroke. In addition, the cherry-eating mice lived longer than their counterparts. Researchers believe these effects are due to reductions in inflammation—a well-recognized risk factor for cardiovascular disease.¹

Insomnia. People ages 59 to 77 with insomnia were given either 8 ounces of tart cherry juice twice a day for two weeks, or another type of fruit juice. Researchers found that the cherry juice drinkers slept nearly an hour and a half longer per night, on average, than the people

who drank the other kind of juice.²

Obesity. Rats that were fed tart cherry powder for just three months had lower body weight and fat mass than their non-cherry eating counterparts. They also had fewer markers of cancer risk. Because chronic inflammation is linked to obesity, researchers believe the rats' weight loss was due to tart cherries' anti-inflammatory properties.³

Diabetes. Rats given tart cherry powder for eight weeks had improved blood sugar and insulin balance—key factors in the prevention of diabetes.⁴

The popular wild cherry varieties grown today ripen in mid to late summer. While it may be getting a little late this year to find the fresh fruit, frozen and dried tart cherries are available year round. So is tart cherry juice, but it's best used in moderation because of its high sugar content. There are some tart cherry juices with no added sugar—dilute them in seltzer if you're not a fan of puckered lips.

However, to get enough of the active ingredients in wild cherries, I suggest not relying on cherry juice alone, but also to use extracts, syrups, and dietary supplements.

Because much of the research so far has been done on animals, I can't recommend an optimal daily dosage of tart cherries or cherry supplements. It's best to work with a physician who is knowledgeable about natural remedies to help you determine the best use for your particular needs

A different kind of “cherry” with powerful healing potential

Winter cherry, also known as ashwagandha, has long been used in India's Ayurvedic medicine tradition.

Winter cherry is not actually a cherry at all. Rather, it's a member of the plant family that includes Chinese lantern and Jerusalem cherry. But that doesn't make it any less medicinal than its wild cherry cousin. In fact, its Latin name is *Withania somniferum*, which implies the same sleep-inducing power as wild cherry.

Winter cherry/ashwagandha has been used for centuries as an effective remedy for joint inflammation. It's so powerful, in fact, that I recommend it instead of the tired old glucosamine and chondroitin supplements,

which have never really worked for joints.

To keep your joints at their healthiest, I recommend 500 mg a day of ashwagandha, together with two other Ayurvedic remedies: boswellia (450 mg a day) and turmeric (200 mg a day).

CHAPTER 5: BREAKING NEWS: CAN SLIGHTLY ELEVATED BLOOD PRESSURE ACTUALLY BE GOOD FOR YOUR HEALTH?

This is the time of year when long summer days and vacations are only memories. Work and school schedules seem to stretch from dawn to dusk. And holiday planning is looming. For those still on the farm, the harvest has to be brought in and the fields and livestock need to be readied for winter.

All of this can add stress to your life. And, as you know, stress is the silent killer when it comes to cardiovascular diseases, metabolic diseases, and other chronic illnesses—in part because it can cause your blood pressure to spike.

But it turns out that not all boosts in blood pressure are bad for you. In fact, surprising new research indicates that moderate increases in blood pressure as you get older may actually be good for your health.

That's right: New studies show that blood pressure levels that are slightly higher than the currently accepted "gold standard" of 120/80 *may not harm* your cardiovascular or cognitive health.

The research is so compelling that a government committee of medical experts recently increased the "safe" blood pressure levels for people over age 60. The committee recommended that treatments to reduce blood pressure for this age group not begin until BP levels are over 150/90.¹

Other medical professionals are a bit more conservative. Recent discussions in both the *British Medical Journal* and the *Journal of the American Medical Association* recommended raising the level at which drug treatment should begin. (The BMJ article suggested 160/100 as the threshold, and JAMA suggested 140/90).

So how did these eyebrow-raising developments come about? After all, for decades, the most common blood pressure adage has been "the lower, the better." And as I've often noted, managing blood pressure is the single most important step you can take to reduce your risk of cardiovascular disease.

But the practice of medicine is both an art and a science, and it is continually evolving. New, expanding

research on different age groups of adults is revealing that my frequent admonition—"moderation in all things"—also appears to be applicable to the concept of healthy blood pressure.

One thought is that blood pressures slightly above "normal" may actually assist older people in maintaining adequate blood circulation to the heart muscle and brain—thus helping to stave off heart attacks and strokes. And slightly higher blood pressure may also help pump more oxygen and glucose to sensitive tissues like the brain, preserving memory and cognition.

Let's take a closer look at this new research, along with steps you can take to manage your blood pressure in light of these new findings.

Moderately high blood pressure may not lead to heart attacks or strokes

A blood pressure reading between 120/80 and 140/90 is considered mild, or early, hypertension. Traditionally, many doctors prescribe blood-pressure lowering drugs to people in this range.

But new research is showing that this practice may actually be dangerous for your health.

Although earlier studies indicated that the risk of heart disease progressively increases as blood pressure rises above 115/75, a June 2014 study showed that lowering systolic blood pressure *below* 120 in adults with hypertension *did not* reduce the rate of heart disease or stroke.²

In this study, 4,480 people were followed for 21 years. At the start of the study, nearly three-quarters of the participants were taking a blood pressure drug, almost one-fifth had diabetes, two-thirds smoked or drank alcohol, and about one-quarter had "high" cholesterol (as defined at that time).

At the end of the study, the researchers found that people whose blood pressure was lowered to a level below 120 didn't have any less risk of cardiovascular disease than the people who remained at the 120 to 139 level.

What's more, the researchers concluded that using drugs to reduce blood pressure below 120 may lead to dizziness, fainting, and other side effects—which can

actually increase health care problems and costs over the long run.

An even more recent study found that overly aggressive lowering of blood pressure actually made people's health *worse*.³

This study reviewed data on 398,419 people taking blood pressure medications for three to five years. The researchers found that lowering blood pressure below standard levels resulted in greater risk of end-stage kidney disease, kidney failure, and even death.

The lowest risk was associated with a blood pressure reading of precisely 137/71. In people with diabetes (who are at greater risk for kidney disease), the lowest risk was at 131/69. For people age 70 or older, the ideal level was 140/70.

Of course, today's new drugs for treating blood pressure may be riskier than staying with the old generic standbys that have already been proven effective over decades for millions of people. My colleague Donald Light, MD, recently published a review of all of the drugs approved by the FDA in the past 30 years. He found that only 10% of the new drugs were more effective than the old drugs they were meant to replace. But fully 50% of the new drugs were less safe than their older counterparts.⁴

In light of this evidence, I bet that researchers would find that treating blood pressure under 140/90 is less risky if doctors considered using only the older, safer drugs. Unfortunately, that's not likely to happen anytime soon.

Taking pressure off the brain

Of course, blood pressure doesn't just affect the heart. It's also a key component in brain function, including cognitive decline.

Thirty years ago, doctors like me were taught that a "normal" systolic blood pressure was 100 plus your age. So an 80-year-old with blood pressure of 180 was nothing to worry about. Over the years, that thinking changed, and doctors began using more drugs in more patients with elevated blood pressure levels. But interestingly, new research is showing that—at least in relation to the brain—my early medical school teachings may have been right all along.

People who first developed high blood pressure in their

80s or 90s actually had a *lower* risk of dementia.⁵

And a recent study from Johns Hopkins University found that people who developed hypertension only after age 68 didn't have any more cognitive decline than people with normal blood pressure.⁶

But there is a caveat: The researchers also found that high blood pressure during middle-age was linked to steeper cognitive decline as they grew older.

Lower your blood pressure without drugs

The good news in all of these recent findings is that it looks like we can afford to begin relaxing blood pressure control somewhat—especially as we grow older. And once again we can look to the golden rule of moderation as our guide.

But if you do have blood pressure above the now-recommended treatment levels of 140/90 or 150/90, you should check with your doctor about starting a treatment program (just be sure to insist on older, proven, safer drug treatments).

But there are also non-drug treatments that can help you manage your blood pressure. In fact, there are many proven, effective, and widely available mind-body techniques that can help reduce blood pressure. To find out which ones will work best for you, read my book, *Your Emotional Type: Finding the Treatments That Will Work for You*.

And as always, good cellular hydration and nutrition are also keys.

One final note of caution: If you monitor your BP at home and find a reading over 180/110, check it again. If it persists, you should seek urgent care to lower it. And be sure to check both arms!

Also...

The "Goldilocks principle" of blood pressure balance

As I've said many times before, high blood pressure is the single-most important risk factor for heart disease.

Higher pressure in the arteries places more stress and wear and tear on the linings of the blood vessels, which contributes to the development of atherosclerotic

arterial disease. And atherosclerotic arterial disease is the cause of heart disease, stroke, and peripheral vascular disease. This factor is particularly apparent when blood pressure hits 180 or higher—a level where treatment is mandated, and may even represent a medical emergency.

Of course, on the other end of the scale, low blood pressure can also pose serious risks, including weakness, dizziness, and fainting. Extremely low blood pressure can deprive your organs of oxygen-rich blood, which can lead to heart, kidney and/or brain damage

So it is important to keep your blood pressure “just right.” High enough to maintain adequate blood pressure in order to provide enough blood, oxygen, and glucose to the brain, heart, and other organs. But low enough to keep arteries and blood vessels smooth—and stop cardiovascular diseases from taking hold.

CHAPTER 6: CASE CLOSED! VITAMIN D CONTROVERSY SETTLED, ONCE AND FOR ALL

During weekends on the radio in the 1930s and '40s, and then on TV in the '50s and '60s, it was nearly impossible to avoid “The Original Amateur Hour” (an early version of “American Idol” and other 21st century copycats). It was even harder to avoid the ads from the show sponsor—the liquid iron supplement Geritol.

Indeed, “Amateur Hour” is an apt description of the mid-20th century medical approach to human nutrition. Mainstream medicine was convinced that nutrition, nutrients, and dietary supplements couldn't be important for health in comparison to the marvels of modern medical ministrations.

Back then, iron was the only nutrient doctors really paid any attention to—based on the belief that menstruating women, regularly losing some blood, might need iron supplementation. Taking a cue from that concern, the dietary supplement industry (such as it was at the time) relentlessly promoted Geritol and the hazards of “iron-poor blood.”

In essence, because doctors knew so little about human nutrition, they busily prescribed one of the very few nutrients that really is toxic.

Unfortunately, half a century later, it's still amateur hour at the CDC. And career science bureaucrats are still trying to argue that the solid evidence against iron supplementation isn't real. They're even attacking scientists who did the research on the dangers of excess iron—including a Nobel laureate.

Even worse, today's bureaucratic ignorance about nutrition extends beyond iron. Although as evidence for the importance of nutrients like vitamin D has mounted, the strategy seems to have changed. Instead of ignoring, denying, or diminishing the data and the researchers, now the strategy is to admit the evidence exists—but then try to create the impression that there is still controversy or “debate” about the data.

The same strategy is applied to drugs. When the evidence piles up overwhelmingly against drugs like statins and low-testosterone treatments, we then have to

have a lengthy “debate” about the “controversy.” Which hopefully (for big pharma) lasts long enough for the patents to expire and the profits to be harvested on these harmful drugs.

But the difference between the drug debate and the supplement debate is that if you wait to take a drug until the controversy is settled, you may well be better off. But if you wait to take a critical nutrient like vitamin D...you’ll be setting yourself up for some very serious health concerns.

So today, let’s settle the current “debate” on vitamin D once and for all.

The overwhelming case for vitamin D supplementation

Back in 2006, I gave the keynote address at the annual Johns Hopkins Medical Center conference on complementary and alternative medicine. My speech was followed by a presentation from Michael Holick, MD, PhD—a world-renowned expert on vitamin D at Boston University.

He pointed out that D is important for much more than just bones (which was the prevailing medical opinion). Reams of laboratory and statistical and epidemiological research show that every organ, tissue, and cell in the body has receptors for vitamin D. Dr. Holick also discovered that D influences the regulation and expression of over 400 different genes—which means it’s involved in virtually every process inside our bodies.

Since then, I’m pleased to see that pathology laboratory doctors are also weighing in on vitamin D research. I pay attention to this source not only because it’s my own original specialty of medicine, but also because doctors in this specialty tend to remember what we were taught about chemistry and biochemistry. They tend to be the most scientific in their approach and have the best ability to evaluate medical research in general (although they know no more, on average, about nutrition than other doctors.

Now that it’s well known that vitamin D is essential to every organ and system in the body, it’s certainly no surprise that a variety of researchers and physicians are repeatedly discovering that D plays a critical role in health and disease.

For example, research has proven that vitamin D plays a key role in preventing and treating five major types of disease.

- 1) Lab studies strongly show that vitamin D influences the proliferation, differentiation, and death of cells throughout the body—making it beneficial in both preventing and treating cancer. The only debate is about how much D needs to be in the blood to have an anti-cancer effect. Sadly, there is little data about this because researchers and physicians often do not measure vitamin D levels in cancer patients (I’ll explain why a little later).
- 2) **Cardiovascular disease.** Vitamin D is found in heart muscle cells, heart connective fibers, the cells in blood vessel walls, and the cells lining blood vessels. So it makes sense that research shows that D deficiency contributes to high blood pressure and enlargement of the heart muscle—both of which can lead to heart attacks and strokes, and heart failure. Studies also show that increased levels of vitamin D may offer a safe, new therapy for congestive heart failure.
- 3) **Kidney disease.** Some research shows that low levels of D are associated with higher mortality in people with kidney disease.
- 4) **Multiple sclerosis.** Low vitamin D is strongly associated with increased risk of MS. The prevalence of this disease in areas where sunshine isn’t strong enough to help the body make its own vitamin D has been staring medical science in the face for decades. But, it wasn’t until the 2013 annual international meeting of MS researchers that the mainstream finally focused on the obvious role of vitamin D—but only after trying virtually everything else over the years!
- 5) **Mental and cognitive health.** Research shows that vitamin D activates receptors in the area of the brain associated with depression. And, as I note on my article on vitamin D is also strongly associated with preventing dementia and improving dementia symptoms in people with Alzheimer’s disease.

So why the “D-bate”?

At this point, the only controversy about vitamin D should be that too many medical research studies, and too many physicians simply don’t measure patients’

vitamin D levels at all. And it certainly doesn't help when an editorial in the influential *British Medical Journal* this past winter recommended that doctors shouldn't bother with the trouble and expense of measuring vitamin D in their patients!¹

It's true that there are some technical challenges involved in measuring vitamin D levels in the blood. First of all, the vitamin is rapidly metabolized. And chemically, it's like a fat, so it doesn't mix well with blood. There are also different forms of D that circulate in our blood. Not all lab tests measure the same forms, so there is lack of standardization. And finally, there are two different units of measurement for vitamin D, and they're not directly comparable.

Despite the battery of automated blood chemistry tests done every time you go to the doctor whether you need them or not (they are the cash cows for all the hospital labs), the technology does not exist to routinely include measurement of vitamin D. So instead of letting health and medical concerns determine routine lab testing practices, we are letting standard (profitable) laboratory routines determine health and medical practice.

On top of the technical issues, the quasi-governmental Food and Nutrition Board of the U.S. Institute of Medicine keeps changing its position regarding the recommended daily intake of D. And it still focuses only on skeletal health, ignoring the vitamin's crucial role in every other part of the body.

Throw in some outdated and unfounded concerns about D "overdose" among physicians (who happily dole out toxic iron supplements to millions who don't need them) and we have the requisite "controversy" and debate that stands in the way of good nutrition, dietary supplementation, and health.

And the result of this so-called "controversy"? Creation of unnecessary obstacles that interfere with the widespread adoption of effective screening methods for vitamin D, and obscure the obvious benefits of—and need for—this crucial vitamin in *all* people.

As far as I'm concerned the "debate" about vitamin D is over. And two facts are indisputable: (1) vitamin D is a highly potent health promoter, and (2) most of the population is severely vitamin D deficient.

Plenty of research shows that most people don't (and can't) get enough vitamin D from diet and sun exposure alone. For people who live above the latitude of Atlanta, even "safe" sun exposure is not enough to maintain optimal D levels year-round. It is especially critical now in November, as the sun gets too low in the sky for its rays to be able to activate vitamin D in the skin.

So what does all the latest science say about vitamin D levels? Serum vitamin D (25-hydroxy-vitamin D) levels below 48 ng/mL are associated with higher rates of preventable diseases. And 90 ng/mL is a good "upper limit." (Though vitamin D toxicity is rare when blood levels are below 200 ng/mL.)

To reach optimal levels, I generally recommend taking 5,000 IU of vitamin D year round. You can also get some of this crucial vitamin from meat, fatty fish like salmon, dairy products, and leafy greens, plus 10 to 15 minutes a day in the sunshine—*without* sunscreen—between April and October.

Ironing out another controversy

Before we had the vitamin D debate, we had the iron debate. But unlike D, the problem with iron is that misguided government bureaucrats and doctors still, to this day, recommend *too much* iron supplementation.

Iron is important for our blood to be able to carry oxygen. But it does not belong outside the blood cells and the entire body needs only a total of 4,000 mg (4 grams). If you eat a healthy, balanced diet, you'll easily maintain that total amount of 4,000 mg.

So what happens if you take excess iron? Well, it can act as an oxidant or free radical that can contribute to a variety of diseases. Many years ago, my faculty advisor, Nobel laureate Baruch Blumberg, understood this basic biochemistry and proposed a theory that too much iron is toxic to the liver and other organs—and could cause cancer.

When I went to work at the National Cancer Institute as a young scientist, Dr. Blumberg knew I could get access to the largest human database (taxpayer funded) that had yet been gathered, and proposed a study to test whether high iron levels eventually lead to more cancer. The NCI's middle-management science bureaucrats didn't like this idea—even if it did come from a Nobel

laureate—and refused access to the data (let alone funding support for the study). Of course, these were the same minions who had no problem dismissing the idea of another Nobel laureate, Linus Pauling, that vitamin C was important for preventing cancer.

Finally, after I left NCI, we petitioned the Department of Energy (which fortunately has an “alternate” medical research program on the effects of ionizing radiation and reactive ions such as excess iron)—and finally got access to the data and funding to do the study. The results clearly showed that excess iron leads to more cancer, of virtually every type, in both men and women. The data was so compelling that the study was published in the *New England Journal of Medicine* (the gold standard medical publication in the U.S.) as well as the *International Journal of Epidemiology*.

Since then, others have found that excess iron leads to more infections and to cardiovascular disease. It is Biochemistry 101, but based on the perpetually misguided recommendations for optimal iron dosages, some public health bureaucrats and doctors must have skipped those classes or forgotten what they learned.

The bottom line, as I’ve said before: Never take any supplement that contains **iron**. Unless you’ve been diagnosed with **iron**-deficiency anemia by a qualified physician.

CHAPTER 7:

LUNG CANCER: ONE OF THE GOVERNMENT’S BIGGEST BETRAYALS AGAINST THE AMERICAN PUBLIC—Five proven ways to protect yourself without their “help”

Thirty years ago, I became a sad witness to one of modern history’s biggest betrayals of the American people by the academic-government-industrial-medical complex. Victims of the nation’s No. 1 cancer killer were abandoned in the midst of a great celebratory announcement of pseudo-progress in the endless government “war on cancer.”

It’s hard to know which came first—putting the wrong people in charge of this particular “battle” of the cancer war, or putting the wrong policies in place. But these two circumstances fed off of each other, creating a perfect storm in which the American people were abandoned and betrayed.

Today, nothing has changed. Lung cancer still remains, by far, the No. 1 cause of cancer deaths in America. The American Cancer Society estimates that nearly 160,000 people will die from lung cancer this year—more than triple the rate of the No. 2 killer, colon cancer.¹

How can this be? Well, annual chest x-rays were abandoned long ago, and according to government “cancer control” experts, nothing has taken their place for screening and early detection of lung cancer (although real doctors beg to differ, as I’ll explain in a moment). There also has been little real progress in developing new medical or surgical treatments for this deadly cancer.

The search for effective treatments goes up in smoke

Meanwhile, the government has become obsessed with tobacco. So how is that working out for the American people? Well, bureaucrats may be winning the anti-smoking battle, but they are losing their so-called “war.”

The surprising fact is, the majority of people who develop lung cancer today have either *never smoked* (about 20%) or are former smokers.² They already complied with the only thing the government has to offer. And yet lung cancer still remains a virtual death sentence and the nation’s No. 1 cancer killer.

Sadly, the government attitude toward smoking has also resulted in blatant bias and discrimination against lung cancer victims—which has been widely reported in the medical literature. Younger victims who never smoked a cigarette in their lives actually say they have to pretend to have a different type of cancer to avoid discrimination and shame. Doctors and nurses often admit that they view lung cancer patients differently than other cancer victims.

What a shame that political considerations have overcome medical science, medical ethics, and even human compassion in dealing with this dreaded disease.

But while the government may have abandoned the American people, I haven't. Before I give you the latest news about what you can do to protect yourself from lung cancer—including surprising data about some of the health benefits of light to moderate cigarette smoking—I'd like to share with you how these shameful attitudes toward lung cancer began.

Clearing the air

In 1984, shortly after I started my research on diet and cancer at the National Cancer Institute (NCI), I was summoned to a meeting to announce a major step "forward" regarding cancer research. The new deputy director of the NCI Division of Cancer Control and Prevention told us that henceforth, funding for lung cancer research would be directed to smoking cessation and prevention programs.

Not research on cancer biology (to understand the disease), nor screening, nor treatment. But strictly "behavioral modification." (The agency even eventually had its name changed to Cancer Control and Population Science, which we might just shorten to "Control of the Population.")

You see, the political scientists had decided what *the* singular cause of lung cancer was, to the exclusion of all of the medical and historical evidence to the contrary. And the new deputy director was a PhD in, you guessed it, psychology and behavioral science.

Of course, directing all of this money from the war on cancer to smoking cessation was one of the biggest windfalls of the 20th century for behavioral scientists. Most of whom had never treated a single cancer patient

nor spent one day in a cancer research lab. And yet suddenly, they were in charge of dealing with the nation's No. 1 cancer killer.

I witnessed these behavioral scientists arriving at their new, cushy jobs at the NCI, taking positions on review committees, and weighing in on research grants. And I was around Washington D.C. long enough to see most of them quietly leave to go back to their ivory towers. Fighting the war on cancer is hard work and was not quite the plum assignment it had seemed. Not to mention general lack of success and results—never a criterion for government work in any case.

State governments fumble just as badly as the Feds

So that's how the federal government has "protected" you against our No. 1 cancer killer for the past three decades.

How about state governments, which received billions of dollars in lawsuit settlement funds from the tobacco companies? Money that was allegedly intended to help the states cover the costs of dealing with supposed tobacco-related illnesses?

Surely the states put away those funds to provide health care for lung cancer victims, right? Well, it turns out some state governments collected all of their tobacco lawsuit money up front by issuing bonds (the way state and local governments like to do: Spend now, pay later—maybe).

Then these states spent that bond money on balancing their budget deficits, paying public employee unions, etc. So good luck getting state government help if you or a loved one develops lung cancer.

By now, it's clear that we are largely on our own when it comes to preventing lung cancer. So what can you do to protect yourself?

My top five scientifically proven suggestions for lung cancer

1) **Cut back on smoking.** If you do smoke cigarettes, cutting back will help. But that doesn't necessarily mean you need to quit entirely, according to the real science.

My own research with a top team of investigators at the NCI, using the largest long-term health database in

the U.S., showed that the effects of light to moderate smoking are completely different from the results of heavy smoking or chain smoking.

Of course, most careless research lumps all smokers together, no matter how much or what they smoke (cigars, pipes, or cigarettes). But the fact is, moderation applies to smoking, just as it does with every other realm of human biology and health.

Indeed, moderation is appropriate in this case as well. The lungs of most people (except those who have a specific genetic susceptibility to cigarette smoke) are not defenseless. The normal lung can handle some smoke—as evidenced by the fact that humans have been regularly exposed to smoke since the invention of fire about a million years ago.

My research, which was published in 1989, showed that people who smoke only half a pack of cigarettes per day (or less) have the same health profiles as nonsmokers. In fact, the light smokers were more likely to maintain healthier weights than nonsmokers.

And cigar and pipe smokers actually had lower overall rates of disease and death than nonsmokers. In fact, some life insurance companies (which are apparently better at actuarial arithmetic than government statisticians) offer discounted rates to cigar smokers.

Amazingly, my data shows that there may be some benefits to sitting back, taking a time out, and *relaxing* with an occasional smoke (especially a cigar or pipe) or alcoholic beverage. Relaxation is key in today's stress-filled world. And, ironically, part of that stress comes from the constant, politically correct finger-wagging about every puff of smoke, bite of fat, or sip of alcohol.

2) Vitamin C. As I explain in my special report *Classified Answers to Cancer*, vitamin C is an anti-cancer powerhouse. Even 30 years ago, the evidence in favor of this vitamin was overwhelming. But the same group of political scientists who shifted lung cancer research exclusively to smoking decided not to study vitamin C any further. Instead (against my and others' advice) they focused on the ill-fated and ill-considered beta-carotene. This set back nutrition and cancer prevention for the rest of the decade.

As a result, we have to look halfway around the world

for real progress on preventing cancer with vitamin C. In China, people get high amounts of C through their diets (as you can too—I'll tell you how in just a minute). So it's no surprise that a new Chinese study of nearly 9,000 people shows that you can reduce your lung cancer risk by 7% for every 100 mg of vitamin C that you take.³

Amazingly, no one who participated in the Chinese study got less than 100 mg per day of vitamin C. Yet the U.S. RDA is only 90 mg, an amount which would, according to the study, nearly double your risk of lung cancer.

The RDA is actually based on what it takes to prevent scurvy—not cancer. To help protect yourself against lung cancer, I recommend 1,000 mg of C a day, divided into two doses (the body can best handle 500 mg of the vitamin at a time). This is not a “megadose” that's often derided by mainstream medicine, but instead, what's truly necessary for optimum health.

Along with your daily supplement dose, it's a good idea to get vitamin C from food. Of course, citrus fruits are excellent sources. Along with eating the whole fruit, try adding lemon or lime slices to your drinking water or any other beverage. Citrus fruits also complement many fish, meat, and vegetable dishes, and are a tasty addition to salads.

Green, leafy vegetables are also very high in vitamin C. Dating back to the British Empire Cancer Campaign studies of the 1920s, these veggies have long been associated with a reduced risk of all cancers, including lung cancer. In fact, this is the single most consistent finding in all of the research on diet and cancer.

Peppers are also excellent sources of vitamin C—the hotter, the better. And rose hips, which can be brewed in herbal teas, are very high in C.

3) Kava kava. I have previously reported the remarkable finding that kava kava is associated with massively reduced lung cancer rates. This natural remedy comes from the root of a plant in the black pepper family that grows in Hawaii, Samoa, and the South Pacific.

Kava supplements were once removed from U.S. and European shelves due to spurious observations that they can cause liver damage. When I was editor of a medical review journal on natural remedies, I asked my colleague in Germany, Jorge Gruenwald, to investigate these claims.

He found in every case that kava's so-called liver toxicity was actually due to a drug the patient was also taking, or some other identifiable cause.

The latest finding on the anti-cancer benefits of kava are so startling that the American Botanical Council (ABC) has called on the National Institutes of Health to study it for lung cancer, since there is so little else to offer. This step is unprecedented for ABC but the initial results are so dramatic and the need for any sort of lung cancer treatment is so great, they are trying to get more attention.

At this point, there is not enough research to suggest a kava dose specifically for lung cancer prevention. However, millions of people have found that an effective dose for anxiety or insomnia is 60 to 120 mg of kava per day.

4) Lung cancer screening and early detection.

Mainstream medicine universally and scandalously pushes questionable and dangerous screenings like colonoscopies and mammograms on virtually everyone. Meanwhile, the only cancer screening that is as safe and effective as it is promoted to be—the Pap test for cervical cancer—is getting bypassed by dangerous, inappropriate, and often ineffective HPV vaccines.

But the biggest scandal of all may be the complete lack of adequate screening for lung cancer—at least according to the NCI “cancer control” experts.

And yet, a new MRI lung-cancer screening test is at least as safe and effective as other screening approaches, according to the American College of Chest Physicians

(who actually treat lung patients.) And it can detect lung tumors while they can still be surgically removed, which causes the risk of death to plummet.

But “experts” in the same old division of the NCI that misdirected lung cancer research, and ignored all of the evidence on vitamin C, are now claiming that this new screening test is not appropriate. Simply because it has some issues with false positives and false negatives—like every other screening test now routinely being done for every other cancer!

If that weren't bad enough, one NCI expert betrayed the government's ingrained, politically correct, unethical bias against lung cancer victims by stating

that people at risk for the cancer obviously don't care about their health and would not bother to get the test anyway. All without a shred of evidence to back up his blanket dismissal.

Of course, Medicare doesn't cover this test, even though two-thirds of lung cancer victims are diagnosed while they're on Medicare.

This government negligence is costing not only lives, but also millions of dollars to treat lung cancer that can and should be prevented with the new MRI screening test.

Concerned and informed members of my own family have successfully had this test, which is quick, painless, safe, and effective. And while Medicare dithers and government discriminates, many private health insurance plans are smart enough to cover this safe and effective test. Most insurers know the simple fact that it's far better (and less costly) to prevent lung cancer than to try to treat it.

Check with your health insurance company to see if the new MRI screening is covered. Then ask your doctor to prescribe the test. If you are already on Medicare, write to your congresspeople and senators about waking up the permanent, unelected government bureaucrats “in charge” of lung cancer prevention.

5) Get some fresh air. My final suggestion for combatting lung cancer might or might not be the easiest. I learned in medical school that living in a dense, polluted, urban environment can potentially affect your lungs as much as smoking a pack of cigarettes per day.

So if you live or work in a city, get out into nature and breathe some fresh air as often as possible, but at least once a week.

And if you end up in front of a campfire or just near a fireplace this holiday season, the smoke won't kill you. Quite the opposite, in fact. Sitting by the fire is good for the body and soul.

The bottom line is the government has abandoned and betrayed us when it comes to today's No. 1 cancer killer. It long ago hoisted the white flag after fighting (but only partially winning) one battle in what should have been a multi-front war on lung cancer.

But now you know there are several simple, scientifically sound steps you can take to help prevent lung cancer—and you don't need the government's mindless, politically correct "help" to do so.

CHAPTER 8: THE SIMPLE SPICE THAT COULD REPLACE SOME OF BIG PHARMA'S BEST-SELLING "MIRACLE" DRUGS

Cinnamon, cloves, ginger, peppermint, nutmeg... nothing evokes the holiday season quite like the smell of spices. But while all of these wintertime favorites have potent medicinal properties, new evidence is showing that a steamier spice may be the most medically versatile of all.

Turmeric, the bright yellow spice that flavors Asian curry dishes, is attracting the attention of more than just chefs. Researchers are finding that when it comes to good health, this popular spice is truly a "gift from the East."

So far, nearly 6,000 studies show that turmeric and its active ingredient curcumin have the potential to treat virtually anything that ails you. Researchers have uncovered a whopping 175 different ways this spice affects our bodies, as well as over 600 potential therapeutic applications.

Turmeric has been found particularly effective at fighting cancer, cardiovascular disease, diabetes, dementia, depression, and osteoarthritis.

This simple spice is so powerful, in fact, that I'm starting to believe it should actually be replacing many of today's most popular drug treatments. Turmeric may very well be the embodiment of the ancient Greek medicinal concept of "panacea," or "all-heal."

Pinpointing turmeric's power

Turmeric gets many of its health properties from curcumin, the antioxidant ingredient that is also responsible for the spice's yellow color. In fact, that blaze of color is a clue to turmeric's potent biological properties.

The list of turmeric's "drug-like" actions reads like the entire Physicians' Desk Reference. Of course, we should really read that sentence the other way around.

Human physiology is a product of nature, and plants are the predominant feature of the environment in which humans developed. Therefore, to be effective, a drug would be expected to have properties that are naturally found in plants. Unfortunately, the isolated, synthetic

chemical nature of drugs makes them less safe (and often less effective) than plant ingredients.

So maybe we should skip the drugs and stick with plant sources. Research certainly suggests just that about turmeric and curcumin.

Why is this duo so powerful? One reason is because turmeric is an impressive anti-inflammatory. As I've often noted, inflammation has been shown to be an underlying cause of many chronic, ultimately fatal diseases. Which helps explain why turmeric is effective against cancer, heart disease, diabetes, dementia, and more.

In one study, curcumin was found to be as potent an anti-inflammatory as aspirin, ibuprofen, naproxen (Aleve), steroids, cox-2 inhibitors like Celebrex, and the breast cancer drug tamoxifen.¹

And those are only some of the drugs turmeric can potentially replace.

Whole-body health from the “spice of life”

Let's look at the various health conditions that turmeric has been shown to improve, compared with the harmful drugs used to treat those conditions.

Cardiovascular disease. Researchers have discovered that curcumin improves the health of the cells that line blood vessels, reducing atherosclerosis, inflammation, and oxidative stress. In essence, the researchers concluded that curcumin does the same thing as the popular statin drug Lipitor, but without all of the crippling drug side effects.²

Like aspirin, curcumin also works as a blood thinner, which can help prevent blood clots that could lead to heart attacks or stroke.

Cancer. Among dozens of natural substances that can treat multidrug-resistant cancers, curcumin tops the list. I mentioned above that it's as effective as the breast cancer drug tamoxifen. And other research shows it compares favorably with the chemotherapy drug oxaliplatin as well.³

Studies also report that curcumin causes cancer cell death or sensitizes drug-resistant cancer cells to chemotherapy and radiation—theoretically reducing the doses of these toxic cancer treatments that would be required.⁴

Diabetes. In the study comparing curcumin to the chemotherapy drug oxaliplatin, researchers also found that the spice was at least *500 times as potent* as the diabetes drug Metformin.

An impressive finding, indeed. But keep in mind this is only one study. As I've explained before, while many herbs show tremendous promise for blood sugar management, the research is still preliminary. No real-world clinical protocols have been established. So, unfortunately, there's simply not yet enough evidence for me to feel confident recommending herbs to control diabetes.

However, curcumin is thought to activate an enzyme that increases muscles' and other tissues' ability to extract glucose from the blood, and suppress glucose production in the liver. Both of these actions can reduce your chance of developing diabetes in the first place.⁵

And, as the saying goes, an ounce of prevention is worth a pound of “cure.”

Dementia and memory loss. Reams of research show that curcumin helps protect brain and nervous tissues. It's also been shown to prevent the clumping of a specific protein in the brain—a process that is considered to be one of the major causes of Alzheimer's disease and age-related dementia.⁵

In addition, a new study shows that curcumin can improve memory, boost attention span, and reduce mental fatigue in people over age 60.⁶

Depression. Animal research shows that curcumin has neurochemical affects on the brain that are similar to antidepressant drugs—but without all of the dangerous side effects.⁷

How much should you take?

Of course you can get turmeric by eating curry dishes. But you need a steady daily diet for best results. A less spicy option is to take turmeric supplements.

Aside from joint health (see sidebar on the next page), we need more research to determine the optimal daily doses of turmeric for all of the many other health benefits I've discussed here (especially when it comes to managing diabetes and controlling blood sugar). But a good starting point is 200 mg a day of a turmeric

supplement standardized to contain at least 95% curcuminoids.

Since turmeric has been used for centuries in food with no negative health effects, there are strong arguments for developing this spice as a safe and effective alternative to a whole host of expensive and dangerous drugs used to treat today's most common medical conditions.

Of course, big pharma has gotten wind of all of this impressive research. And there are reports that some pharmaceutical companies are actually working on turmeric-related drugs. But there's no guarantee that these drugs will be as nontoxic as the simple spice—or that we'll see them any time soon. Or that we'll be able to afford whatever turmeric drug big pharma comes up with.

So in the meantime, consider adding this “spice of life” to your diet or daily supplement regimen. Your mind, body, and taste buds will thank you.

SPICE UP YOUR OSTEOARTHRITIS REMEDY

Considering turmeric's potent anti-inflammatory effects, it's no surprise that it's highly effective for joint pain. In fact, research shows that a combination of turmeric and boswellia (frankincense) reduced knee osteoarthritis symptoms more effectively than the popular—and dangerous—drug Celecoxib.⁸

Of course, any NSAID, including osteoarthritis drugs, is associated with significantly increased risks of gastrointestinal bleeding, kidney damage, and heart problems. But no adverse effects were reported with turmeric/boswellia.

I know a man who combined these two ingredients with the ancient South Asian herb ashwagandha, or winter cherry. He had been scheduled to have both knees replaced earlier this year after living for four years in constant pain.

But after only two months of taking the turmeric/boswellia/ashwagandha combo, he asked his doctor to cancel the knee replacement surgery. And he now feels confident he will never need this painful and expensive surgery. (This is especially fortunate since recent research reveals that only one-third of knee replacements are both appropriate and necessary.)

This man achieved these results by taking 250 mg of boswellia, 300 mg of ashwagandha, and 120 mg of turmeric per day. Based on all available research, for joint health for most people, I recommend a larger dose—450 mg of boswellia (gum extract), 500 mg of ashwagandha (root extract) and 500 mg of turmeric (*Curcuma longa*, or root extract). And make sure to also get nutrients that support the health of the underlying bone: magnesium and vitamins C, D, and E.

CHAPTER 9:
ALARMING NEW RESEARCH REVEALS 93% OF
AMERICANS AREN'T GETTING ENOUGH OF ONE
CRITICAL VITAMIN—And it's taking a disastrous toll
on your heart, your immunity, your brain and more

I have often told you how critical it is to boost your vitamin D intake. And you also know the importance of getting optimal levels of vitamins B and C.

But chances are that you haven't heard as much about vitamin E.

This essential nutrient is often neglected for a variety of reasons. First of all, it's difficult to measure the amount of E that's actually circulating in your body. So the government is basically clueless about how much of the vitamin humans really need for optimal health.

But vitamin E is definitely not something to be taken for granted. Research shows this nutrient is crucial for every stage of life—from helping fetuses develop normally to staving off Alzheimer's disease. It's important for your heart, eyes, and immune system, and it's vital for brain health.

So that makes it even more infuriating that misguided government bureaucrats think we get plenty of vitamin E—or even buy into the urban legend that we actually get too much.

Vitamin E deficiency: Subtle but deadly

That's simply not the case. Vitamin E deficiency occurs with alarming frequency both in the U.S. and around the world. In fact, recent research shows that a shocking 93% of Americans don't get enough vitamin E.¹

Part of the misunderstanding surrounding E deficiency is that there aren't readily observable diseases associated with low E intake, as there are for other nutrients. For instance, if you don't get enough vitamin C, you develop scurvy. Too little vitamin A can cause blindness in children. A lack of vitamin D leads to rickets. And low doses of B vitamins cause exotic diseases like beriberi and pellagra.

The effects of vitamin E deficiency are less obvious. But, in many cases, they're more deadly. Vitamin E deficiency has serious impacts on the brain and nervous system, as well as the body's general resistance to infection.

Let's take a good look at what vitamin E can do for you—and what the government and mainstream medicine are *not* doing for you in regard to this crucial nutrient.

Why are we so short on E?

The FDA's view of what even constitutes natural vitamin E intake is flawed. Vitamin E has eight active compounds, but the FDA only recognizes one of those—meaning that many E supplements have 0% of the vitamin's main disease-fighting ingredients.

Furthermore, it takes more than blood measurements to determine if you have adequate levels of vitamin E—or any nutrient, for that matter. To truly discover if your body is getting enough of a nutrient, it's important to find out how much of it is circulating throughout your tissues, organs, and cells—not just your blood.

Of course, that's extremely difficult to measure. And that flaw seems to have caught up with us when it comes to vitamin E. For example, blood levels of vitamin E often rise with age, but that doesn't necessarily mean that all of the E circulating in our blood is being delivered to the cells that need it.

To make matters even more complicated, some critics have raised unnecessary false alarms about “excessive” vitamin E, based upon a flawed study several years ago. This myth has been given more lives than the proverbial cat through endless repetition by “experts” who don't seem to understand basic human nutrition and are not up to date on vitamin E science.

Many of these same “experts” actually believe that vitamin E deficiency does not occur—despite the scientific evidence. Subsequently, the government assumes there are no shortfalls with vitamin E intake in the general population, and has set the recommended daily allowance of E at a dangerously low level.

I'll tell you how much you *really* should be getting in just a moment. But first, let's take a closer look at the critical roles vitamin E plays in the body.

Why you need E

A review of multiple studies published in the September issue of *Advances in Nutrition* revealed some significant findings about the importance of vitamin E.²

Fetus and child development. It's critical for pregnant women to consume adequate vitamin E because it's essential for normal fetal development. Lack of vitamin E during pregnancy is associated with anemia, infections, stunting, and overall poor outcomes for both infant and mother. During childhood, not getting enough E can cause neurological disorders, along with abnormalities of skeletal and heart muscles.³

Dementia and Alzheimer's disease. Later in life, vitamin E appears to have an important role in preventing or managing Alzheimer's and dementia. A recent study revealed that taking 2,000 IU of vitamin E per day reduced symptoms of dementia and improved cognitive function in a group of older Americans. The "go-to" Alzheimer's drug, memantine, showed no effect in this study. In fact, the drug even appeared to *negate* the benefits of vitamin E in the people who received both the drug and the nutrient.⁴

Of course, the 2,000 IU of vitamin E used in the study is much higher than the government's recommended daily allowance (which I will address shortly).

Cognition and brain function. Throughout life, there is evidence that vitamin E is important for supporting the brain and improving cognition. In fact, an interesting study reported that people who have higher levels of vitamin E (together with B, C, and D) throughout their lives not only have better cognitive function—they actually have *bigger brains* when they're older.⁵

Omega-3 fatty acids. Studies suggest that vitamin E appears to protect the functions of essential omega-3 fatty acids, which are important for brain and eye health, heart health, and supporting a balanced immune system. One study cited in the *Advances in Nutrition* review showed that people who had the highest levels of DHA—a component of omega-3s—cut their risk of dementia nearly in half.

The right dosage

So now for the million-dollar question: How much vitamin E do you need each day?

The government currently recommends 15 mg per day for adults. But broad surveys show that 90% of men and 96% of women don't even consume this minimal amount.³ Not to mention that research indicates that the

optimal daily intake should be much higher.

Consequently, I recommend 50 mg of vitamin E per day. Of course, this amount is much smaller than the therapeutic dose used in the dementia study I discussed above. However, my recommendation is based on a general dose for optimal health. (If you currently suffer from dementia and are interested in vitamin E therapy, you should consult and work closely with a qualified medical professional who understands nutritional supplementation.)

You can also incorporate more vitamin E-rich foods into your diet. Some of the best sources are nuts, seeds, spinach, and eggs. (Note that the vitamin E in eggs is found in the yolk. So be sure to eat the whole egg—not just the white.) All of these foods (except spinach) are also good sources of essential fatty acids, which, as I mentioned earlier, work with vitamin E to improve health on many levels.

So, this month, go ahead and roast some chestnuts over an open fire. And put all those sweet nutcrackers to good use. Your body and your brain will thank you.

CHAPTER 10:
THE SHOCKING DRUG SCANDAL YOU HAVEN'T
HEARD ABOUT—How big pharma's best-selling
osteoporosis medications are poisoning your bones

Start off the new year right. Ask your doctor about getting off dangerous, counter-productive drugs, or avoid them in the first place. You will find more doctors are starting to agree.

Take statin drugs, for instance. I've written before about the irony of these drugs. While they do indeed lower cholesterol, they do it by poisoning your normal metabolism.

More research shows they won't typically protect you against heart disease or reduce mortality. Plus, they have so many side effects that, in the end, they really aren't beneficial for the vast majority of people and doctors are finally raising serious doubts.

Unfortunately, statin drugs aren't the only widely prescribed medications that have a topsy-turvy risk-benefit ratio.

It turns out that certain osteoporosis drugs suffer from this same kind of problem. Popular bisphosphonate osteoporosis drugs like Fosomax, Boniva, and Actonel do artificially increase bone density. But several large clinical trials show they do not significantly lower the risk of bone fractures over the lifetime of a patient.¹ Shouldn't that be the whole point of these drugs?

In fact, research is beginning to show that women who take bisphosphonate osteoporosis drugs for more than five years can suffer from atypical bone fractures. Meaning their bones break *spontaneously*, even without a fall or major force being applied.²

That's certainly ironic, considering the purpose of these drugs is to reduce fractures—not just increase bone density. So we have yet another drug class that does not work as intended. And, once again, there are some very effective natural alternatives that can help keep your bones strong and healthy. More on those in just a moment. But first, let me shed a little more light onto the dark side of osteoporosis drugs.

**The hazards of building on
a weak foundation**

Why are these drugs ineffective? Well, first of all, building and maintaining healthy bone is a complex process. The bones that make up our skeletons don't just permanently set like concrete. There is constant, living bone "remodeling" based upon cues from the body as to daily stresses and strains, as well as metabolic and nutritional conditions and status.

There are two major types of bone cells at work in our bodies at all times. *Osteoclasts* remove old or injured bone cells, or bone cells that have lost their blood supply. Then, *osteoblasts* build new, healthy, strong bone. For healthy bones, you can't have one without the other.

But osteoporosis drugs work by *poisoning a key enzyme* in osteoclasts, causing these critical bone cells to die because their main metabolic pathway is disrupted. (And who knows what other metabolic pathways in the body are being poisoned as well?). Does killing normal and necessary cells of any kind sound like a good pathway to health ?

Without osteoclasts to clean up old or injured bone cells, the osteoblasts merrily keep building new bones, but on an unhealthy foundation. This process may result in thick bones, but they are not stronger, healthy bones. Think of it like building a strong new house to code on top of a rotten, crumbling foundation. (That's the way I often felt building sound new public health programs with U.S. Surgeon General C. Everett Koop during the Reagan administration—I had to work on top of the "foundation" of a permanent, dysfunctional, disinterested, unresponsive, and undermining federal government bureaucracy.)

We all know that big pharma produces some truly heinous drugs, but why would it create another drug that is actually designed to *poison* you? Well, believe it or not, poisoning is not unheard of in medicine. In fact, in ancient Greece or Rome, one could hire a physician to either help cure or poison a patient. That's one reason Dr. Koop always reminded us that the Hippocratic Oath of the ancient Greek physicians begins with, "I will give no deadly medicine to any one if asked."

Once upon a time, pharmacology was based on *materia medica*, or the components of plants that support

health and healing (as is still, in fact, the case with modern dietary supplements). But it seems big pharma has taken a turn from pharmacology back to ancient Greek toxicology, as it creates drugs that poison normal cells and normal metabolism in order to bring about intermediate results. Regardless of whether there are any long-lasting health benefits.

As I've explained before, statin drugs poison the body's ability to make cholesterol. Sure, this brings down cholesterol levels. But cholesterol is actually essential for good health. So now we have a bunch of people with lower cholesterol, but without improved overall health or reduced mortality. Now big pharma is poisoning normal bone cells so they can't do their job to remove old, unhealthy bone. Then the drugs force the body to pile new, thicker bones on top of old, sick bone. But, oops! Turns out that contributes to bone fractures.

Yet both of these metabolic poisons are still on the market. And millions of people are taking them every single day.

What doctors don't know about bone health can hurt you

It doesn't take an orthopedic expert (please) to predict that long-term use of common osteoporosis medications will result in poor bone health. A simple look at normal bone metabolism shows the futility and, ultimately, the fraudulence of trying such an approach. But today's medical students don't learn much about bones anymore. And specializing in orthopedics doesn't turn them into geniuses when it comes to the science either.

(See Chapter 11, "The unnecessary surgery bringing Medicare to its knees" for more reasons to be skeptical about orthopedics.)

These topics (e.g., bones, nutrition, and skeletal nutrition) are simply not taught in medical school.

The one specialty of medicine where students do learn about bones is forensic medicine—including both forensic anthropology and pathology.

As a consulting forensic pathologist, several years ago I had a case of a dentist who, ironically, took an osteoporosis drug and then developed an abscess in his jawbone. Based on the new studies cited in this

article, it seems that the drug poisoned his ability to remove old, unhealthy bone, which ultimately led to an infection that created the abscess in his jaw. Dental abscesses are very dangerous because they can penetrate into the brain. The poor dentist went through a medical nightmare for months on end and was never fully restored to normal health.

I and my fellow medical examiners contribute to public health and public safety by being called upon occasionally to examine the bones of the dead. But it would sure be nice if doctors who examined the living knew and understood more about bones.

The good news is, there are a number of natural approaches that can help strengthen bones—without poisoning them or building new bone on top of a dead, crumbling foundation. Of course, again, medical doctors aren't typically taught about these safe, natural alternatives. In fact, I learned what I know about bones and nutrition while earning my PhD in anthropology.

Natural alternatives to osteoporosis drugs

There are a variety of ways you can support and nourish both types of bone cells—which ultimately produces strong and healthy bones. All without the dangerous side effects of osteoporosis drugs.

Calcium and vitamin K2 are crucial bone nutrients. But you should get them from your diet rather than taking them as supplements.

Fermented dairy foods like cheese, yogurt, and soy offer more potent and consistent sources of K2 than supplements do. And moderate intake of healthy dairy, eggs, fish, and meat—including some saturated fats—is necessary for adequate calcium levels. (Calcium is one nutrient that really must be obtained from foods. The whole concept of calcium supplementation is problematic in every way.)

You also need trace amounts of **boron** (5 mg per day) and 150-200 mg a day of **magnesium** for optimal bone health. Magnesium is vital in helping your body absorb calcium from food. But unlike calcium, it can be taken as a supplement. Some good-quality bone-health supplements contain adequate levels of magnesium and boron.

It's no surprise at all that **vitamin D**, which benefits virtually every part of the body, is also important for healthy bones. I recommend 5,000 IU per day of vitamin D for general health.

Vitamin C (500 mg per day) and **vitamin E** (50 IU per day) are also important for bone health.

And, of course, regular, light-to-moderate **exercise** will send the right signals to your bone cells to keep working to remodel and rebuild healthy bone with the natural nutrients you are giving your body.

Healthy bones support healthy joints

If you are troubled by joint pain, it's important to support the bones underlying the joint cartilage. This provides a healthy foundation while you control the inflammation in the joints. (Inflammation prevents healing and new cartilage formation.)

There are several supplements that can help repair joint cartilage. Certainly, everyone has been talking about tired, old glucosamine and chondroitin for decades. And some natural know-it-alls are still droning on about them. But these so-called remedies simply don't work.

What you really need for optimal joint health is a combination approach. The nutrients I described above will help provide the healthy bone foundation your joints need. And there are also three herbal remedies that offer remarkable pain relief by targeting inflammation. Try standard daily doses of 450 mg of boswellia together with 200 mg of turmeric and 500 mg of ashwaganda.

Magnesium's benefits—beyond strong bones

In addition to its role in bone health, magnesium has an important influence on the heart and blood vessels. A large analysis of 22 clinical trials showed that magnesium supplementation resulted in significant reductions in blood pressure.³ And a variety of studies have found that low magnesium levels are associated with insulin resistance and diabetes.

Magnesium may also be helpful for tension headaches—perhaps due to its beneficial effects on muscle tightness and tenderness.⁴ There is also strong evidence that magnesium can reduce the frequency of migraines. Finally, there is some research showing that magnesium

can be helpful for menstrual cramps (probably because of its effects on muscle tissue) and PMS.⁵

For optimal health, I recommend supplementing with 150-200 mg of magnesium per day. This step is particularly important if you take thiazide diuretics—a common drug for high blood pressure that causes you to lose magnesium through your kidneys.

CHAPTER 11: THE UNNECESSARY SURGERY BRINGING MEDICARE TO ITS KNEES

I previously reported about a new study showing that a whopping 56% of all knee replacements are inappropriate or ineffective. That got me thinking about what kind of financial impact this medical malfeasance is having on our already dysfunctional healthcare system.

I did some sleuthing, and the most recent available data shows that the epidemic of unnecessary knee replacement procedures is causing a serious economic problem—namely bringing Medicare to *its* knees, and the American taxpayers with it.

And the sad fact is that there are many proven, low-cost, and pain-free alternatives to knee surgery that mainstream medicine and government health bureaucrats simply ignore. I'll tell you what you need to know to keep your knees healthy and the surgeon's knife far away in just a moment. But first, let's take a closer look at what the epidemic of unnecessary knee replacements is really costing the American public.

\$2 billion of your hard-earned tax dollars wasted every year

According to a *Journal of the American Medical Association* study of more than 3 million Medicare Part A beneficiaries, the number of total knee replacements in Americans over age 65 skyrocketed 162% between 1991 and 2010.¹ In 2010 alone, doctors replaced 243,802 knees.

JAMA reports that the average knee replacement surgery costs \$15,000. So that means the total price tag for new knees for the Medicare generation is nearly \$3.7 billion per year.

When you consider that more than half of those surgeries are unnecessary, we're looking at nearly \$2 billion worth of wasted Medicare taxpayer dollars every year. That doesn't even count the extra hospital charges when there are knee surgery complications.

And that jaw-dropping total may only be scratching the surface, as the American population gets older..

According to the *JAMA study*, there will likely be a profound increase in knee surgeries over the next 15 years. The researchers who conducted the study believe that by 2030, there could be 3.5 million knee replacements *per year*. That's up from "only" about half a million procedures in 2010. (It's like an old bad joke, about counting up the number of knees, and dividing by two to get the number of people.)

Multiply the \$15,000 per surgery by millions of new procedures, plus inflation, and we're talking about some real money, even by government standards (of course, as it is now, Medicare already takes another 2.9% of everyone's income right off the top as payroll taxes).

"Replacing the replacement" is becoming disturbingly commonplace

There are two types of total knee replacements: primary and revision. Revisions occur when a primary knee replacement fails or wears out. This "replacing the replacement" surgery is now much more common because primary knee replacement procedures are being done before they're really needed, and at increasingly young (and inappropriate) ages.

Out of the 3.3 million people in the *JAMA study* who had a primary knee replacement, about 10% subsequently had to have revisions. That's more than double the amount there were 20 years ago.

So why is this happening? I have a theory.

Hospitals are pushing patients out the door earlier and earlier, whether or not they are ready to go home. Twenty years ago, the average length of hospitalization after knee replacement surgery was eight days. Today, it's just four days.

Perhaps this "short-sheeting" of hospital patients helps account for the skyrocketing numbers of revision knee replacements? Not to mention lining surgeons' pockets.

Another thing to take into account is that a significant percentage of total knee replacements are performed by surgeons who do fewer than 12 of these types of procedures per year.² On the one hand, you can't accuse these surgeons of running knee replacement "mills." But on the other hand, maintaining skill and proficiency—as well as appropriate surgical and

operating room capability and hospital support—may be better done with more practice. (Then again, 12 knee replacement surgeries per year, at a cost of \$15,000 each, still comes in quite handy with those monthly yacht and fancy foreign car payments.)

Medicare bureaucrats are discussing whether more knee replacement procedures should be shifted to high-volume surgery centers. These centers have lower readmission rates following primary knee replacements, plus lower rates of revisions.

But there are much more important matters that aren't even being considered. Namely, how to avoid these unnecessary surgeries in the first place.

Natural ways to protect your knees

One reason we have an epidemic of knee problems is because too many aging amateur marathon runners and “weekend warriors” got swept up in an exercise craze that pushed them beyond reasonable limits for joint health (or even heart health). They now “require” joint replacements, according to orthopedic surgeons.

But do they really?

We rarely hear from orthopods about the appropriate use of natural joint supplements. Most of the “natural-know-it-alls” are no better, pushing supplements like glucosamine and chondroitin that simply don't work.

But taking the right doses of the right nutrients works remarkably well in a relatively short time. There have been many single-ingredient studies showing how the plant-based supplements **boswellia**, **ashwaganda**, and **turmeric** reduce joint pain and restore joint function.

While each of these nutrients is effective alone, studies show that they're most potent when used together. In fact, the boswellia/ashwaganda/turmeric combo relieves osteoarthritis pain better than prescription drugs like Celebrex.

Another benefit: When this supplement trio is taken together, you may need significantly lower doses. I know people who have had remarkable results on a fraction of the single-ingredient doses of these three marvelous joint remedies.

One man I know was even able to tell his surgeon to

cancel his knee replacement!

The latest research and clinical observations show that minimum effective daily doses of my recommended joint “triple play” are 270 mg of boswellia gum extract, 300 mg of ashwaganda root extract, and 120 mg of turmeric root. Of course it is safe to take higher doses (up to double), and you may need these higher doses if you have a larger body or a bigger skeletal frame size.

I know at least one man who was able to cancel his knee surgery after taking these combination doses for just 3 months.

Vitamins and minerals are also important for bone and joint health. I recommend 500 mg of vitamin C a day, 50 IU of vitamin E, 150-200 mg of magnesium, and 5 mg of boron.

And of course, vitamin D is a must. I recommend 5,000 IU of vitamin D3 daily for everyone for general health (especially at this time of year), and particularly for bone and joint health.

Finally, **daily exercise** will help keep your knee joints supple and your bones healthy. But there's no need to go to extremes. Walking, yard work, and housework are all good, sensible approaches that are a lot easier on your joints than running on hard pavement or gym floors. Swimming and any kind of movement in water is also ideal for joints, as well as for general health.

Instead of shelling out billions of our tax dollars for useless and dangerous knee replacement surgeries, perhaps the powers-that-be at Medicare should pay more attention to these scientifically proven, highly effective natural approaches.

The solutions are all so obvious...except to those who profit most from being oblivious to them.

Your healthy knee checklist

My recommendations for maintaining healthy joints—and avoiding knee surgery—are as follows:

- 270 mg of boswellia gum extract
- 300 mg of ashwaganda root extract
- 120 mg of turmeric root
- 500 mg of vitamin C
- 50 IU of vitamin E

- 150–200 mg of magnesium
- 5 mg of boron
- 5,000 IU of vitamin D3

Take these nutrients each day. And don't forget to get some light physical activity on a regular basis too.

CHAPTER 12: THE FUTURE OF HEALTHY AGING FROM A DEEP SEA DISCOVERY

Most people associate plants with the color green. But plant pigments go far beyond green. In fact, they cover the visible spectrum of light that we know of as the colors of the rainbow.

Pigments help plants grow and stay healthy. And because plants are the primary source of food and medicine for all animal life, it's no surprise that these pigments have a powerful role in human health as well.

In fact, research shows that pigments have a strong ability to counter oxidative stress (like they do in their host plants), as well as inflammation. Both are key factors in the development of chronic diseases associated with aging—including cardiovascular disease, diabetes, arthritis, and more.

I've written before about two of these plant pigments—lutein and lycopene. I helped discover the role of these carotenoids in human metabolism and nutrition while I was doing research with the National Cancer Institute and the U.S. Department of Agriculture's Human Nutrition Research Center in the mid-1980s. Both lutein and lycopene have since become an intrinsic part of the dietary supplement and natural products industry.

But recently, news of another powerful carotenoid has, literally, risen from the sea.

Thousands of studies reveal a wealth of benefits

Astaxanthin is a deep yellow-orange-red compound found in kelp, fish, shrimp and other crustaceans. On land, astaxanthin is prominent in leafy green vegetables (together with several other carotenoids), sweet potatoes, and the healthy spice turmeric.

There have been more than 1,000 studies on astaxanthin, including several hundred in just the last three years. These studies indicate that astaxanthin may help people with conditions that are related to chronic inflammation, including arthritis and rheumatoid diseases, cardiovascular disease, diabetes and metabolic disorders, liver disease, and neurological conditions.

Even better—like other natural anti-inflammatory ingredients, astaxanthin doesn't have the serious side effects of steroids or non-steroidal anti-inflammatory drugs (NSAIDs) such as osteoarthritis medications.

There's a cornucopia of astaxanthin and other carotenoids in the natural world. But getting enough of these critical nutrients from food is another matter.

Even healthy diets need a supplement boost

In my own studies, I found that young, healthy, University of Maryland students had to eat more than two pounds of carrots (for alpha- and beta-carotene) and another two pounds of broccoli (for lutein and other carotenoids) every day to get high enough blood levels of carotenoids. Obtaining enough lycopene was not as difficult—just following the typical “frat boy” diet with lots of pizza, tomato sauce, and ketchup added to anything or everything (not an otherwise healthy diet) did the trick.

As for astaxanthin, you would have to eat as much as 16 ounces of salmon every day to get a minimum daily dose.

Fortunately, lutein and lycopene have become available as supplements, and now astaxanthin is too. Most of the research on astaxanthin has used doses ranging from 4 to 16 mg per day. I recommend starting at the low end of that spectrum (4 mg), and also including natural food sources of this nutrient in your regular diet. As I mentioned above, salmon, shrimp, and sweet potatoes all contain astaxanthin.

But be careful what type of astaxanthin supplement you choose. As demand for this carotenoid has increased, the supply from natural marine sources has not kept up. A lot of synthetic versions have flooded the market, but natural sources are still available. I recommend the AstaREAL brand. It's produced from *Haematococcus pluvialis*, the richest natural source of astaxanthin on earth.

For optimum health, take a lesson from the plant world and make sure to get your daily does of carotenoids—including astaxanthin, our gift from the sea.

Plant-powered health from land and sea

Energy from the sun is the source of all plant life and, in turn, all life on earth. The sun emits many types of

radiation—from cosmic and gamma waves, to radio waves, to ultraviolet and infrared light. The earth's atmosphere filters out most of this radiation (otherwise plant and animal life would literally be burned out).

Plants convert this solar energy into carbohydrates and oxygen through photosynthesis. They also use the sun to produce the all-important pigment chlorophyll, or “color lover” in Greek. Chlorophyll gives plants their green color.

But, as I mentioned above, plant pigments go far beyond green.

Hiding behind the predominant green color of plants are red-orange-yellow pigments (carotenoids) and dark red-blue-purple pigments (anthocyanins). These brilliant colors are revealed in ripening fruits in the spring and summer and in the changing colors of autumn leaves.

There is also an undersea world of plant pigments. Near the surface of the oceans, the water is teeming with algae and microbes. When the sun reaches these tiny plants, they make red-pink carotenoid pigments like astaxanthin. These pigments are so potent that they transfer their color to the shrimp, krill, and other shellfish that dine on algae and other marine plants.

The pigments even make their way up the food chain to flamingos. These exotic birds have white skin, but the red-pink pigments from their diet of shrimp and crustaceans settle in their feathers, giving flamingos their brilliant hues.

Due to the predominance of plant life on earth, the human eye is most sensitive to the color green but can, of course, distinguish hundreds of shades. In addition, our skin is sensitive to certain wavelengths of ultraviolet light, and actually engages in photosynthesis when it converts vitamin D into a form our bodies can use.

Because the wavelengths of ultraviolet light required for this conversion occur just beyond the visible range, they are filtered out except where the atmosphere is the thinnest (nearest the equator). At latitudes north of Atlanta, these wavelengths are only strong enough to allow our skin to convert vitamin D at specific times of the year—between about 10 a.m. and 2 p.m. daily from April through October.

That's why it's important to supplement with vitamin D3—especially at this time of year—along with astaxanthin. I recommend 5,000 IU of vitamin D3 per day.

CHAPTER 13: THE SHOCKING SOURCE SPREADING COLD AND FLU VIRUSES—And the back-to-basics way to protect yourself starting TODAY

For years, we've been led to believe that the air-powered, "no-touch" hand dryers found in public restrooms are more hygienic than using old-fashioned paper towels. But new research shows nothing could be further from the truth.¹

In fact, these supposedly "germ-free" hand dryers are very likely spreading cold and flu viruses throughout public restrooms—and *directly onto you*.

Fortunately, there's a simple way to protect yourself. I'll tell you about it in a moment. But first, let's look at this shocking new research.

High-velocity germs

Public restrooms are the most germ-contaminated places you're likely to encounter. So a group of British researchers decided to test just how much the hand dryers in these restrooms contribute to all the bacteria floating around.

The researchers looked at two types of hand dryers: jet dryers, which blow out cold air at high speed, and warm-air dryers, which provide some heat at lower air velocity.

What they found was revealing ... and revolting. Both types of dryers not only spread bacteria into the air, but also onto users and anybody else nearby.

Just how bad were the hand dryers? Bacterial counts in the air around high-velocity jet air dryers were about five times higher than they were around lower-velocity warm-air dryers, and nearly *30 times higher* compared to using paper towels.

What's more, germs in the air persisted well beyond the typical 15-second drying time of these devices. After five minutes, bacteria levels had declined only by half—and were still detected in the air a full *15 minutes* later.

So when you use those annoying air dryers in a public restroom, you're not avoiding the spread of bacteria—you're actually multiplying it.

Not to mention these dryers use much more energy than taking paper from a mechanical dispenser. They also contribute to air and noise pollution. And to make matters worse, they take more time—and never seem to really work anyway.

Wash off bacteria the right way

The point of hand washing is to reduce the density of bacteria and viruses on your hands. The friction created by rubbing your hands together in plain water pushes off the majority of these germs. Adding regular soap (no need for special antibacterial varieties) takes care of most of what's left.

But a few microbes may still remain on your hands no matter how thoroughly you lather and scrub. The good news is that these microbes aren't likely to make you sick. It generally takes a fairly high dose of bacteria or viruses to get infected with the typical cold or flu.

And usually, you also have to touch a contaminated surface and then touch your eye, nose, or mouth to come down with a cold or the flu. But air-powered hand dryers may be turning the entire restroom into a germ lab. In fact, the last time I got a cold was a day or two after using a few public restrooms at highway gas stations.

As this new research shows, the better option is to use a paper towel to physically wipe off the bacteria left behind after washing. Putting your hands in a dryer just spreads all those germs around in the air, and eventually onto surfaces you touch.

But what if you find yourself in a public restroom that has already “thrown in the towel” and only offers air dryers?

The DIY germ solution

Since I was a child, I have always carried a handkerchief in my back pocket, and often a small package of tissues as well. And a real gentleman carries a spare handkerchief for someone else in need. Another benefit to this practice is that I can use my handkerchief or some of my tissues to dry my hands in public restrooms that don't have paper towels. They do a better, quicker job than an air dryer. And I get out of these often unpleasant places all the sooner.

For optimum protection from other people's germs, I hold the door handle with a tissue (or a paper towel if they have one) when I exit, and then discard the tissue or towel.

If you follow these simple steps, they'll do more to protect you from bacteria and viruses than any flu vaccine promoted by the government.

CHAPTER 14: AN APPLE A DAY CAN KEEP OBESITY AWAY

By now, winter may seem endless. But you can capture some warmth and sunshine (and all the nutrition that goes with it) by eating plenty of fresh fruits. In fact, one common fruit might actually help you accomplish one of those New Year's resolutions you may or may not be struggling to keep up with by now.

New research suggests apples may help you lose weight.¹

How? Well, most foods found in nature have constituents that are not digestible. Fiber, for instance. But that doesn't mean these ingredients don't play a role in nutrition and health. Researchers have found that the non-digestible compounds in apples can improve the health of your gastrointestinal tract—which helps fight obesity.

The researchers analyzed the contents of Braeburn, Fuji, Gala, Golden Delicious, Granny Smith, McIntosh, and Red Delicious apples. They found the non-digestible fiber, polyphenols, and other compounds in Granny Smith apples influenced the bacteria in the gastrointestinal tract. These compounds were actually able to alter the microbiome of obese lab animals to be similar to those of lean animals.

Researchers have already discovered that gut bacteria in obese people is different than that of lean people. And now this research shows something as simple as an apple can, in essence, help you fight obesity from the inside out.

The scientists believe there are two main reasons why Granny Smith apples were the most effective of all of the apple varieties at altering the microbiome: The tart, green apples have a high content of non-digestible compounds, along with a low content of digestible carbohydrates.

Don't be afraid of fruit sugar

These observations provide another example of the intricate influences apples and other fruits have on human health. But what about the concern that eating fruit—and the fructose sugar it contains—contributes to metabolic disorders like diabetes?

This fear is most likely misplaced. Research shows the

fructose found in fruits appears to be digested and metabolized differently than the sucrose found in table sugar (sugarcane).

Botanists believe sugarcane originated in New Guinea. Due to the human propensity for a "sweet tooth," it rapidly spread throughout the world—first through Chinese and Indian traders in the 16th century, and then by Europeans.

Growers in the western hemisphere also began cultivating their own sugarcane, bringing in foreign workers to harvest this labor-intensive crop. (Of course, this "advancement" contributed to some terrible conditions other than diabetes—namely, slavery and diseases like malaria and yellow fever.)

By contrast, fruits are widespread in nature and were available to most humans long before sugarcane. Which means our bodies are more adept at processing the natural sugar they contain. And unlike sugarcane, fruits provide a natural matrix of other healthy nutrients.

But it is important to opt for organic versions of fruits in which you eat the skin—like the mighty, obesity-fighting apple.

CHAPTER 15: THE DEADLY DISEASE OFTEN IGNORED BY MODERN MEDICINE

Your complete guide for conquering it—safely and naturally

A thoughtful reader recently asked about natural approaches to kidney disease. This question is important since a whopping one in three Americans is at risk of chronic kidney disease.¹ And that can lead to dialysis, kidney transplants—even death.

Despite these dire statistics, chronic kidney disease and other kidney problems get almost no attention from the natural know-it-alls. And mainstream medicine and big pharma often overlook the kidneys in favor of supposedly more “important” organs.

But that doesn’t mean there isn’t anything you can do about kidney disease. Quite the opposite, in fact. Here’s what you need to know about this devastating disease, along with simple, easy dietary changes you can make to help keep your kidneys healthy.

Whole body health depends on your kidneys

Our kidneys’ main job is to filter our blood. They remove excess electrolytes and fluids from our bodies in order to carefully maintain sodium, chloride, potassium, calcium, phosphorus, and other salts and minerals at just the right levels.

Interestingly, paleontologists believe that the levels of salts and minerals in our blood reflect the salinity of seawater from hundreds of millions of years ago, when life first emerged from the oceans onto the land. These levels are about half the salinity of seawater today. So, in essence, our kidneys ensure that an ancient “inner sea” continues to course through our circulatory systems every day.

Because kidneys are designed to remove any excess salt from our bodies, the high-salt hypothesis never made sense to me as the cause of high blood pressure. Now, of course, the right kinds of studies are finally being done, and they show that indeed, salt does not cause high blood pressure. We all have the basic physiology of the kidney to thank for that. Too bad more government “experts” on blood pressure didn’t pay more attention to

their own studies in physiology.

Another function of the kidney is to remove nitrogen-containing waste products from the blood and body. Remember the basic chemical building blocks of life are carbon, hydrogen, oxygen and nitrogen. Compounds containing carbon, hydrogen and oxygen are known as carbohydrates. Adding nitrogen gives amino acids, the building blocks of proteins, which include enzymes as well as structural components of tissues, like bone and muscle.

The body metabolizes carbohydrate by burning it, combining it with oxygen to generate energy, and forming carbon dioxide and water as “byproducts.” The carbon dioxide is breathed out. And the water produced is the major source of hydration inside our cells, for cellular hydration. (A fact readers are well aware of, but sports and hydration “experts” ignore.)

But what happens to the waste products of nitrogen-containing molecules? These are essentially broken down into urea and uric acid and must be removed by the kidney as well. When urea and uric acid build up in the blood, they can be deposited in the cartilage and joints, causing gout. Gout is an ancient disease and there have been effective herbal remedies. The Autumn crocus was a common treatment and was even grown in medicinal plant gardens in colonial America. However, the plant may be toxic and is better used as the drug colchicine. Of course, the other approach to gout, as with all kidney-related diseases is to manage diet. More on that in just a moment.

Finally, once the blood is filtered by the kidney, urine forms in what is anatomically called the pelvis of the kidney. Then urine travels down the ureters into the bladder where it is stored until elimination through the urethra. The urine is normally a perfectly sterile fluid, free of bacteria and viruses. However, in the pelvis of the kidney, certain salts and minerals can also slowly over time form into kidney stones. (See the sidebar on page 35 for more on kidney stones.)

Healthy heart leads to healthy kidneys

In order for kidneys to do all their jobs properly, their blood vessels must be strong and healthy. But like any other blood vessels in the body, kidney blood vessels can be damaged by high blood pressure (causing vascular

kidney disease) or high blood sugar, known as diabetic kidney disease. In addition, inflammation of the kidney membranes can damage their ability to filter urine.

We now understand that heart disease, metabolic diseases like diabetes, and inflammation are all intricately related—as is kidney disease.

So that means that the best way to prevent kidney disease is to keep your heart healthy, manage your blood sugar, and lower your risk of inflammation.

With that in mind, it's hardly surprising that diet and nutrition are major factors in preventing kidney disease. Just like they are for preventing heart disease, diabetes, and inflammation

But there are also some foods, herbs, and supplements that are particularly important just for your kidneys.

What you should—and shouldn't—be eating

Foods that have an effect on kidney disease tend to be divided into two categories. First, there are the antioxidant, anti-inflammatory fruits and vegetables that you should be eating to help your entire body fight disease.

Then there are foods that you should actually *avoid* if you have kidney disease. Poorly functioning kidneys have difficulty filtering out electrolytes like potassium and phosphorus. Too much phosphorus leads to bone, blood vessel, and thyroid disorders. And too much potassium can damage your heart and interferes with proper hydration. So it's critical to limit foods that contain large quantities of these minerals.

Some foods that are particularly high in potassium include avocado, artichoke, banana, dates, potato, prunes, and yogurt. High-phosphorus foods include Brazil nuts, salmon, scallops, and yogurt. These are the foods you should limit.

Fortunately, there are some foods that help fight general diseases, including kidney disease, all in one tasty bite.

Bell peppers are low in potassium and high in vitamins A, B, and C, as well as fiber. Numerous studies show that fiber can help keep your kidneys healthy. Red bell peppers also contain some lycopene (which I helped discover in the mid-1980s) that protects against many

NATURAL TREATMENTS FOR KIDNEY STONES

Kidney stones are different than kidney disease, and can have several causes. Generally, they occur when salts and minerals, such as calcium, build up in the blood, urine and drainage system of the kidneys, called the ureters, over time. This is one of the reasons I warn against taking calcium supplements. They result in excess calcium in the blood and urine and increase the risk of kidney stones. Urinary stones may also be caused by the oxalic acid in green and black tea. Herbal teas, such as South African rooibos, are usually free of oxalic acid and thus are a better choice for kidney health.

And when there is not enough fluid for adequate urine flow out of the kidneys, stones form more easily. So proper hydration is key. I recommend Red Joe brand rooibos, which I helped develop. It will help hydrate your entire body—including your kidneys—at the cellular level.

If you do get a kidney stone, it can be treated without drugs. Ask your urologist about using ultrasound in a water bath to eliminate kidney stones using only sound waves.

chronic diseases, including kidney disease.

Cabbage is full of healthy phytochemicals and vitamins B, C, and K—and is low in potassium. Red cabbage has additional beneficial plant pigments.

Cauliflower has a large number of indoles and thiocyanates, which help the liver neutralize toxic substances that can damage kidneys. It also has lots of vitamins B and C and fiber. And mashed cauliflower is a good low-carb substitute for mashed potatoes (which are high in potassium).

Garlic and onions are excellent anti-inflammatories and antioxidants. They are also low in potassium and are good sources of chromium—a key mineral for healthy metabolism.

Apples are low in potassium and high in fiber and anti-inflammatory compounds. They also contain malic acid, which research shows can help protect against kidney stones.²

Blueberries are high in fiber, antioxidants, and anti-inflammatory compounds—including anthocyanins, which give them their dark blue color. They are also a good source of vitamin C and manganese.

Cherries reduce inflammation when eaten daily. And

THE WHOLE GRAIN CONTROVERSY

The National Kidney Foundation, the American Kidney Fund, and the National Institutes of Health all recommend that people who have kidney disease avoid eating whole grains. Ironically, whole grains—which are regarded as more nutritious than refined, white grains—have a higher phosphorous content than their paler cousins.

But a recent study questions that recommendation, arguing that the human body lacks an enzyme that allows us to digest the phosphorous in whole grains.³ Plus, the researchers point out, whole grains have a lot of fiber, which is uniformly agreed to be important for healthy kidneys.

If you're understandably confused about what types of grains you should be eating, let me simplify: I recommend being careful with all of your grain consumption—whole or refined. Both types of grains contain carbohydrates, which are now recognized as the leading contributors to cardiovascular disease and diabetes. Which, as I mentioned above, are the two main causes of kidney disease.

So keep it simple and avoid grains, and carbs, for good health all the way around.

cherry extracts are helpful for prevention and treatment of gout. You will probably not get enough of the beneficial ingredients from eating cherries or drinking cherry juice alone, so you should rely on a concentrated cherry extract.

Grape skins contain several beneficial flavonoids that are also responsible for their colors. These flavonoids may stimulate production of nitric oxide, which relaxes blood vessels throughout the body—including the kidneys—and helps improve blood flow and circulation. These compounds are also found in red wine, and bonus!—the alcohol in wine also relaxes blood vessels. But don't overdo the grapes (they are relatively high in sugar) or the wine.

Raspberries and strawberries are good sources of fiber, vitamins B and C, and manganese. They're also powerful antioxidants.

It is not just fruit and vegetables that are important for overall nutrition that supports kidney health. Eggs provide high quality protein with all the essential amino acids, as well as essentially fatty acids and vitamins D and E. Fish also provides high quality protein as well as omega-3 fatty acids. Try to eat fish at least twice per

week. Olive oil is a great source of oleic acid, another anti-inflammatory fatty acid. And of course it is a key ingredient in the heart healthy Mediterranean Diet, which also helps prevent kidney disease—and many other diseases as well.

Unfortunately, when patients with kidney diseases require hospitalization—as they frequently do for treatments—the hospital diets provided do absolutely nothing to support these patients.

You have to wonder what hospital dietitians are doing all day when we know hospital meals are a disaster not only for kidney patients, but for all patients. That's one reason I never accept the facile "recommendations" of your typical internet dietitians. I honestly can't believe some of the outdated, unfounded nonsense they continue to spout. I sometimes have to wonder their training, knowledge, or understanding of human nutrition.

Supplement your way to healthier kidneys

B vitamins, especially **vitamin B12**, are important for proper kidney function because they help keep dangerous homocysteine levels from building up in the blood. Homocysteine damages blood vessels and is associated with many diseases of aging, including chronic renal failure. .

For optimum kidney health and overall good health, I recommend taking a high-quality vitamin B complex that contains at least the following dosages: 50 mg each of thiamine, riboflavin (B2), niacin/niacinamide, B6, and pantothenic acid, plus 400 micrograms of folic acid/folate, 12 mcg of B12, and 100 mcg of biotin.

RED-FLAG FOODS FOR KIDNEY DISEASE

If you have kidney disease or impaired kidney function, avoid foods high in phosphorus and potassium. Here is a quick list of some of the top food sources to limit:

- | | |
|------------|---------------|
| • avocado | • artichoke |
| • bananas | • Brazil nuts |
| • dates | • potatoes |
| • prunes | • salmon |
| • scallops | • yogurt |

Dandelion appears to be a powerhouse in terms of protecting the kidneys. It also helps the kidneys stimulate urine production. The name dandelion is originally from the French “dents-de-lion” or lion’s teeth, due to the sharp, serrated edges of the leaves. But the modern French colloquial name for dandelion is actually “pis-en-lit,” which literally means wet-the-bed, in recognition of the plant’s mild diuretic effects.

Recent laboratory and human research has found that a daily combination of 400 mg of dandelion and 400 mg of **rooibos** not only keeps your cells and kidneys properly hydrated, but also supports overall vitality, physical activity and agility.

Finally, to protect your kidneys (and your muscles), you need to stay off **statin drugs**. Statins can destroy your muscle tissues, which leads to production of a dangerous substance called myoglobin. Myoglobin can poison your kidneys as they work to filter it out of your blood.

By following the right diet and taking a few simple supplements, you can keep your entire body healthy, including your kidneys.

CHAPTER 16: THE “CONTROVERSIAL” PENNIES-PER-DAY HEART CURE EVERY CARDIOLOGIST IN THE COUNTRY SHOULD BE RECOMMENDING

The *New York Times* recently published some very interesting statistics. Over the last half-century, from 1958 to 2010, the annual U.S. death rate from heart disease declined by a monumental 68%. And, during that same time period, the death rate from strokes fell even more—79%.¹

So, looking at it a different way, back in 1958, 56 out of every 10,000 Americans died from heart disease. In 2010, that number plummeted to just 18 people.

And in 1958, 18 out of every 10,000 Americans died from strokes—compared to only 4 out of 10,000 in 2010.

Why the dramatic reduction?

Well, in 1978, 20 years into this trend, a nationwide conference of experts was convened by the National Institutes of Health to answer that very question.

The experts noted that the decline in deaths from heart disease and stroke was evident before the government’s misguided dietary recommendations and major anti-tobacco campaigns and lawsuits went into effect, and long before any drugs were available to address the myth of “killer cholesterol.” So, faulty dietary advice, smoking cessation and prevention, and anti-cholesterol drugs could not be responsible for this early decline.

The experts looked at other potential factors. In 1978, there had already been some favorable trends in physical activity. Plus, more intensive and effective hospital management and treatment of heart disease and stroke would have been expected to help reduce mortality. But at the same time, Americans were eating more fat and meat, and gaining more weight.

So the experts were flummoxed. They couldn’t identify a probable cause for why so many fewer people were dying of heart disease and stroke.

Nonetheless, the government-industrial-medical complex embarked on its faulty campaign to reduce consumption of meat, saturated fats, and salts, and to push cholesterol-lowering drugs. None of which had

anything to do with the actual decline of heart disease and stroke that had already occurred.

But I and my colleague, Dr. Kilmer McCully, think we have the answer. And it's a simple one.

We believe the reduction in heart disease and stroke is because Americans are consuming more of three simple nutrients: vitamins B6 (pyridoxal), B12, and folate/folic acid (B9).

What B can do for you

These B vitamins are required for normal metabolism of an amino acid called homocysteine. And high levels of homocysteine in the blood can result in cardiovascular disease.

Dr. McCully is a pioneer in B vitamin/homocysteine/heart disease research. He also introduced the "homocysteine hypothesis" way back in 1969. At the heart of this hypothesis is the belief that introduction of highly processed foods during the early 20th century caused lower B vitamin intakes and higher heart disease rates during the 1940s to 1960s.

Food processing involves heating, chemical treatment, extraction of purified carbohydrates and oils, and milling of grains—all of which strip foods of their naturally occurring B vitamins.

In fact, in the rice-dependent populations of Asia, it has been observed that removing the B vitamin-rich bran layer to convert brown rice to white rice leads to beriberi, a vitamin B (thiamine)-deficiency disease.

Along with unprocessed foods, B vitamins are also found in meat, eggs, dairy products, and whole grains. That's why vegans and vegetarians can have difficulty getting enough Bs to keep them—and their hearts—healthy.

For example, in the country of Chad in Sub-Saharan Africa, the population subsists on beans, cassava, ground nuts, millet, and sweet potatoes. The semi-arid climate and poor soil results in poorly nourished livestock, with fewer dairy foods and rare consumption of meat.

Dr. McCully and a colleague conducted a study in which they found that even though people in Chad eat very little saturated fat and have low cholesterol levels, they have high homocysteine levels. And even more tellingly,

they have *more* cardiovascular disease than people in other African countries who get more protein and B vitamins in their diets.²

Need more convincing? In the U.S., the famous Framingham Heart Study found that the participants who were between the ages of 67 and 96 had major nutritional deficiencies during the 1950s, which led to them having low vitamin B status for years.³ Consumption of vitamin B6 rose from 0.23 mg a day in 1955 to 3.5 mg a day in the 1970s.

Likewise, folic acid intakes increased beginning in the 1960s, and in 1998, the FDA mandated fortification of processed grains with folic acid. The Framingham Heart Study demonstrated that folate blood levels doubled after this fortification began. And homocysteine levels decreased by 15%.

In addition to this compelling research, several large-scale studies conducted in the 1990s and 2000s evaluated whether supplementing with vitamins B6, B12, and folate could prevent heart attacks or strokes.

In the HOPE 2 trial, people who supplemented with B vitamins had a notably significant 27% reduction in strokes.⁴ And in the VISP trial, people who had the highest blood levels of vitamin B12 had a 21% reduction in heart disease, stroke, or death.⁵

Why mainstream medicine is B-fuddled about heart disease

You'd think this research would convince doctors that low B vitamin intake and high homocysteine levels are real risk factors for heart disease. So why is the medical profession and the general public so uninformed about this key finding.

One answer has to do with what happened to Dr. McCully after his pioneering B vitamin/homocysteine/heart disease studies.

Since then, over 17,500 scientific studies have shown that high homocysteine levels can also lead to blood clots, cancer, dementia, kidney disease, low thyroid levels, osteoporosis, retinal degeneration of the eyes, and mental illness.

But while some of these studies were underway, the mainstream was marginalizing Dr. McCully's research

linking homocysteine levels with heart disease.

He says there was a “violent” reaction against his findings on homocysteine from the “cholesterol cartel,” and he consequently was denied promotions and tenure and was blackballed within the research community and industry.

In fact, after a decade of groundbreaking research on this subject at Harvard Medical School and Massachusetts General Hospital, Dr. McCully was exiled to try to continue his work at the VA Medical Center in Providence, Rhode Island.

Dr. McCully believes his findings were not a threat to the multibillion-dollar food or pharma industries. But many of his colleagues disagreed. In fact, in the late 1990s I received funding from a private, non-medical foundation to bring Dr. McCully to speak at the College of Physicians of Philadelphia, a bastion of traditional biomedicine. But I was quickly reminded about the Biblical story of trying to “bring pearls before swine.”

Dr. McCully’s expulsion from Harvard came just at the time that big pharma was getting ready to launch its new “blockbuster” cholesterol drugs. And therein lies the conflict. If you can prevent heart disease by taking a simple B vitamin supplement, why bother with the dangerous and expensive new drugs?

The fact is, this simple, inexpensive, safe, natural approach should be the very first recommendation made by every cardiologist and general physician to any patient at risk of heart attack or stroke.

In his 2014 book, *Homocysteine: Biosynthesis and Health Implications*, Dr. McCully notes that “it is significant that the 80-year history of the cholesterol/dietary fat approach has yet to provide a coherent and comprehensive scientific theory which explains how cholesterol, a normal constituent of the body, or excess dietary fat in the diet of susceptible populations, produces arteriosclerotic plaques,” which is the cause of heart disease and stroke.

And in the meantime, for optimum heart health and overall good health, I recommend taking a high-quality vitamin B complex that contains at least the following dosages: 50 mg each of thiamine, riboflavin (B2), niacin/niacinamide, B6, and pantothenic acid, plus 400

micrograms of folic acid/folate, 12 mcg of B12, and 100 mcg of biotin.

But beware—you must get started with B supplementation early. Once you have well-established cardiovascular disease, B6, B12, and folic acid supplementation may not be enough alone to reverse the disease.

CHAPTER 17: THE DIET MYTH PUTTING YOUR HEALTH—AND THE PLANET—IN DANGER

When I consider the many outright myths cloaked in pseudo-science that have been promulgated over the years by the government, it's no wonder the American public struggles to identify, let alone consume, a healthy diet.

Take the politically correct—yet scientifically incorrect—recommendations against eating beef, for example. Here are two of the biggest arguments:

- 1) Meat contains saturated fats that will supposedly kill you.
- 2) Raising cattle is bad for the environment.

This is pseudo-science at its best (or worst). Let's take a look at the real science, which shows that beef really should be what's for dinner.

Saturated fat: not as evil as you've been told to think

The government has done a great job of brainwashing the American public into thinking that the saturated fat found in meat, butter, and other animal products is a major cause of heart disease. But a growing number of studies are proving this is simply a big fat myth.

In fact, one report looked at 21 studies of 350,000 people whose eating habits were tracked for more than two decades. The researchers' conclusion: Eating saturated fat does not make you any more susceptible to heart disease, stroke, or cardiovascular disease.¹

But what about all the other ways saturated fat is supposed to kill you?

Well, research shows eating red meat doesn't boost your risk for colorectal cancer.² And a surprising new study reports that the saturated fat found in dairy products can actually *lower* your chance of getting type 2 diabetes.³

The truth is, there is more and more data every week pointing to sugar and simple carbs as the culprits not only for diabetes and obesity, but also for high blood pressure and heart disease. Not saturated fat.

So while you should avoid white bread and doughnuts, don't turn away from a juicy steak. Not only will your taste buds thank you, but so will your body—especially your muscles—and brain.

Beef is packed with essential nutrients. It's high in protein (of which most older men don't get enough) as well as calcium, magnesium, potassium, and selenium—key disease-fighting minerals that many Americans are lacking.

So with the anti-beef health claims cleared up, what about the argument that raising cattle has a negative impact on the environment?

Good for you, good for the environment

Semi-educated environmentalists continually lecture us that cattle use up water and soil, trample edible plants, and consume grains that could otherwise be nourishing hungry humans. Jumping onto the global-warming bandwagon, critics blame bovine flatulence, burps, and even breathing for contributing methane and other "greenhouse" gases to the atmosphere.

But these concerns are completely unjustified. In fact, research shows that raising cattle is actually *beneficial* for the environment.

Let's start with an "inconvenient truth" about climate change. First of all, the EPA reports that only 9% of all U.S. greenhouse gas emissions come from agricultural activity. And about half of that 9% comes from improper soil management—not flatulent Flossies.⁴

In fact, according to the Union of Concerned Scientists, only about 2% of U.S. greenhouse gases can be linked to cattle.⁵ And appropriate pasture management can reduce that amount even further.

On the other hand, cattle are key to a promising strategy for actually reducing global warming through restoration and trapping of carbon into the soil (instead of being released as greenhouse gases).

Tilling the soil releases carbon and strips the earth of protective vegetation. But land used for grazing is rarely plowed, meaning the carbon greenhouse gases remain in the dirt.

Furthermore, foraging animals keep our grasslands

healthy. Constant munching of plants stimulates them to grow, and animal wastes help with nutrient recycling and seed germination.

These beneficial effects used to be provided by wild grazing herds (“big game”) that once roamed the grasslands. Now, in many parts of the country, it’s up to cattle to do that job.

Research in the U.K. has shown that when beef cattle are raised on grasslands using good management practices, enough carbon is sequestered in the soil to offset methane emissions from all of Britain’s beef cattle and half of its dairy herds.⁷

Similarly, in the U.S., the Union of Concerned Scientists estimates that virtually all of the greenhouse gases our cattle emit can be offset by sequestering carbon in the soil of grazing grasslands.

But what about the water associated with beef production?

Some critics assert that it takes about 2,500 gallons of water to produce one pound of beef. Vegans cite wildly higher estimates. But once again, science proves these catastrophists wrong.

Research conducted at the University of California, Davis shows that producing a typical pound of beef requires only 441 gallons of water.⁸ That’s the equivalent of what it takes to grow a pound of rice, which is much lower in protein, vitamins, and minerals than beef.

And there’s another factor to take into account. Over thousands of years of human history, people have raised cattle on land that is too dry to grow any crops. And our digestive systems don’t allow us to eat the native grasses that do thrive in this arid soil. But cattle can consume these grasses and convert them into highly nutritious meat we can eat.

This agricultural development is one of the most important achievements in the history of human civilization. Even in ancient China, famous for growing vast amounts of rice to feed a large population, the semi-mythical Emperor Shennong (“The Divine Husbandman”) was accorded celestial divine status for teaching the Chinese how to raise livestock. He is also considered the father of agricultural and medicinal

plants, as well as a “rainmaker.”

Basically, livestock convert the vast spaces of the planet that could never grow crops for human consumption into productive lands that provide meat. Which exposes another myth—that raising cattle somehow contributes to world hunger. In many parts of the world, meat and dairy from cattle keep tens of millions of people from going hungry.

The meat of the matter

Healthy grasslands are key to protecting and conserving the world’s land, water, soil, and climate. And ever since cattle were first domesticated about 10,000 years ago, they’ve been an important part of that equation.

Not to mention, meat is a highly nutritious source of food.

Bottom line? Beef is important for a healthy body and a healthy planet.

CHAPTER 18: TAKE OUT THAT HEARING AID! New research shows 5 safe, simple nutrients can help reverse hearing loss

Our aging population and increasingly noisy environment means that hearing loss is all too common these days. In fact, hearing problems have become a major health issue, affecting about 48 million people—20% of all American adults.¹

And the statistics get even more dire the older you get. By the time you reach age 65, you have a one in three chance of becoming hard of hearing.

Shockingly, that ranks hearing loss as the third largest public health issue in the U.S.—just behind arthritis and heart disease.

And interestingly, scientists are discovering that our ears appear to be sensitive to environmental stresses such as oxidation and inflammation, and are also vulnerable to nutrient insufficiency.

So that means hearing loss may actually act as an early indicator of inadequate nutrition and a toxic environment—like the proverbial canary in a coal mine.

Hearing loss presents other serious health problems as well. A new study shows that people with hearing loss also have reduced cognition, which is associated with dementia.² And another large study found that hearing loss can cause physical impairment, including a 31% increased risk of disability that could result in the need for nursing care.³

But hearing problems don't have to be an inevitable part of growing old. In fact, new research shows that boosting your consumption of a few basic vitamins and minerals can dramatically improve your hearing.

The secret to a long, healthy life, deep inside your ears

The ear is a fascinating organ that is actually responsible for two important senses—hearing and balance. Loss of hearing results in deafness, and loss of balance results in vertigo.

Let's start with the balance aspects. The inner ear is important for maintaining proper orientation in space. It works with the eyes and the muscular-skeletal system

to keep us oriented, upright, and walking correctly.

This is important as we age because maintaining balance and having a good gait are two of the strongest predictors of longevity—probably because they combine muscular-skeletal strength and abilities with central nervous system processing and coordination.

The other function of the ear—hearing—is also important, of course. This part of the ear is known as the cochlea (or shell—like a seashell, whose convolutions follow the natural ratio *phi*, also known as Fibonacci's number). Aside from listening to spoken words, music, and the sounds of nature, our ears' perception of sound waves is also a key component in the innovative healing fields of Acutonics, music therapy, and sound therapy.

Simple nutrients may help stave off— even reverse—hearing loss

The presence of free radical chemicals in the inner ear is a key factor in hearing loss,

suggesting that antioxidants may play an important role in prevention and treatment.

And indeed, some animal experiments have shown that the antioxidant **vitamins A, C, and E** do have an effect on hearing.

Experimental studies have also shown that **magnesium** may be important in reducing hearing loss as well. It's thought that this versatile mineral helps restore blood flow to the hearing apparatus of the ear following damage by excessive noise.

Plus, we know that magnesium can help prevent headaches and migraines, probably because of its effects on blood flow in the brain. So it makes sense that it could also have a similar impact on our ears.

But despite these provocative findings, epidemiologists have been slow to study the effects of nutrients on human hearing.

That is, until last year—the *American Journal of Clinical Nutrition* published a new study on nutrients and hearing.⁴ The researchers found that higher intakes of vitamins A and C and magnesium were associated with better hearing in nearly 2,600 participants, ages 20 to 69. This data came from the National Health and

OPTIMAL NUTRITION, OPTIMAL HEARING

Here is a quick recap of the nutrients your body needs for optimal hearing:

- Vitamin A
- Vitamin B complex—50 mg each of thiamine, riboflavin (B2), niacin/niacinamide, B6, and pantothenic acid, plus 400 micrograms of folic acid/folate, 12 mcg of B12, and 100 mcg of biotin.
- Vitamin C—500 mg twice per day
- Vitamin E—50 IU per day
- Magnesium—200 mg per day

Nutrition Examination Survey—the single best source of data on nutrition and health in the U.S.

The beneficial effects of A, C, and magnesium were found at both normal speech ranges and high-frequency ranges of sound. Furthermore, the impact of all three nutrients acting together was stronger than the individual effects of each of the nutrients acting alone.

There is also experimental evidence that **vitamin B** supplementation can help prevent noise-induced hearing loss.⁵ And nicotinamide riboside (NR), a precursor to vitamin B3, appears to protect the nerves that transmit sound input to the brain. Research shows that NR may be particularly effective for people regularly exposed to loud noises.

Of course, it's difficult to find NR on supplement shelves (it is, after all, a derivative of the "dreaded" nicotine). But you can protect your hearing with a good vitamin B complex that contains at least 50 mg of B3 (niacin).

Drugs don't sound like the answer

When it comes to drugs that help hearing, there are very limited treatment options. However, there are many drugs that can *cause* hearing loss, from antibiotics to popular pain relievers, including non-steroidal anti-inflammatory agents (NSAIDs) and acetaminophen (Tylenol).

Studies on these drugs using high-tech audiometric measurements are curiously lacking. But a new review of research involving more than 92,000 people does show that people who took NSAIDs had increased risk of self-reported hearing loss.⁶

Specifically, those who regularly took ibuprofen had a 13% increased risk of hearing loss, and acetaminophen consumption was associated with a 21% larger risk.

So for good hearing, it's best to stay away from drugs and go back to the basic A, B, Cs of good nutrition. Think of the ear as nervous tissue. These nutrients benefit the brain and peripheral nerves, so it makes sense that they appear to help hearing as well.

Along with the vitamin B dose mentioned above, I recommend supplementing your diet with 500 mg of vitamin C twice per day, 50 IU of vitamin E daily, and 200 mg of magnesium. There's no good data on the optimal human dose of vitamin A, so I recommend getting the vitamin from dairy, fish, and meat. All of these foods contain essential fats, which is key because vitamin A is fat soluble.

You should also include lots of red-orange fruits and vegetables in your diet (for carotenoid vitamin A precursors), and green-leafy vegetables for other carotenoids such as lutein. Lutein has been shown to be important for brain and eye health, and I suspect it benefits hearing as well. You can now also get the carotenoid astaxanthin together with liquid vitamin A. I recommend 5,000 IU of vitamin A plus astaxanthin daily.

Follow this plan and it will help keep not only your ears, but your entire body, healthy and sound.

CHAPTER 19: SCIENCE PROVES THE HEALING POWER OF POSITIVE EMOTIONS

Being touched by the beauty of nature, music, or art is certainly good for the soul. But new research shows these kinds of spiritual experiences are good for your physical health too.

Previous research has found that positive emotions can help balance the immune system. And now, a new study shows these emotions may also reduce inflammation—the culprit associated with everything from depression to diabetes.

The study is one of the first to discover the biochemical mechanisms by which positive emotions can improve health.¹ The researchers conducted two experiments on more than 200 young adults in order to accomplish this study.

First, the study participants reported when they experienced emotions such as amusement, awe, compassion, contentment, joy, love, or pride each day. Then, the researchers took samples of each person's cheek and gum tissues, and measured the levels of cytokines in those tissues.

Cytokines are pro-inflammatory proteins that signal the immune system to boost its activity to help fight off an infection, virus, or other trauma. But too many cytokines result in chronic inflammation, which can lead to disorders like arthritis, Alzheimer's, depression, diabetes, and heart disease—not to mention overall poor health.

The researchers found that the study participants with the highest levels of positive emotions also had the lowest levels of cytokines—as well as another marker of inflammation found in white blood cells.

The “feel good” prescription for better sleep, improved mood, even allergy relief

So, it appears that positive emotions can help stave off a host of chronic diseases. But they may also help with temporary symptoms as well.

Elevated cytokines and chronic inflammation in the brain also appear to block key hormones and neurotransmitters that influence appetite, memory, mood, and sleep.

So positive emotions have the potential for some far-reaching health benefits. For instance, it has long been said that people with seasonal allergies are also more likely to suffer from depression. Perhaps the effects of cytokines and chronic inflammation play a role in this association.

I've previously reported on the serious problems with drugs for seasonal allergies, and some natural alternatives. But don't forget to try positive emotions as well. The next time your eyes start to water and your sinuses erupt, try not to “curse” the plants and trees. Instead, try to appreciate the beauty of Nature. It might help your allergies—and stave off chronic disease as well.

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Chapter 1

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