

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 (as I reported in the *Daily Dispatch* "Doctors voice growing doubts about blockbuster statin drugs" last month).

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 <u>do not</u> 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 <u>reduce</u> 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

Continued on page 2...

In this issue:

Want a better workout?
Don't take resveratrol 4
The unnecessary surgery
bringing Medicare to its knees 6
The future of healthy aging
from a deep sea discovery7
Ask the Insider 8

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Dr. Micozzi's *Insiders*' Cures is published monthly by OmniVista Health Media, L.L.C., 819 N. Charles St., Baltimore, MD 21201 for \$74 per year (\$6.16 an issue).

POSTMASTER: Send address changes to Insiders' Cures, 819 N. Charles St., Baltimore, MD 21201.

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Copyright © 2015 OmniVista Health Media, L.L.C., 819 N. Charles St., Baltimore, MD 21201. Reproduction in whole or in part is prohibited without written permission of the publisher. 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 <u>or</u> 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 <u>support</u> 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

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, as I wrote in the February 2013 issue of *Insiders' Cures*, these so-called remedies simply don't work.

What you really need for optimal joint health is a combination approach. The nutrients I describe on page 3 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. You can read more about this effective trio on page 5. 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, as I noted in my *Daily Dispatch* e-letter back in August ("Experts call most common orthopedic surgery 'inappropriate' or 'inconclusive'''), specializing in orthopedics doesn't turn them into geniuses when it comes to the science either.

(See the article "The unnecessary surgery bringing Medicare to its knees" on page 5 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 Ph.D. 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.

As I explained in the May issue of *Insiders' Cures*, 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. (See more about this essential vitamin on page 6.) **Vitamin C** (500 mg per day) and **vitamin E** (50 IU per day) are also important for bone health.

And, of course, regular, lightto-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.

Citations available online at www.DrMicozzi.com

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.

Want a better workout? Don't take resveratrol

There are many myths about resveratrol as a supposed "magic bullet" for everything that ails you. One of the most ludicrous fantasies is that this nutrient can somehow "turbo charge" your workouts to make you more physically fit. It's even possible to purchase resveratrol supplements marketed as "exercise mimics."

But the only real mimics are the media outlets repeating the press releases handed to them by marketers in the supplement industry. These mindless, breathless media people promulgate the PR about resveratrol as a complement to exercise and to enhance physical performance.

Not only is that an attempt to pile one gimmick on top of another, but a recent study reveals that it's not even true. In fact, this new research shows resveratrol may actually *negate* the benefits that come from exercising.¹

The opposite of a "magic bullet"

Here's what study author Dr. Brendon Gurd said: "The efficacy of resveratrol at improving metabolic and cardiovascular functions is not as profound as was once thought."

That's putting it politely.

More pointedly, Dr. Gurd added, "The easiest way to experience the benefits of physical activity is to be physically active."

Dr. Gurd and his colleagues evaluated 16 men who did less than three hours of aerobic exercise per week. During the four-week study, the men increased their exercise levels and also added high-intensity interval training (such as sprinting followed by walking) three times a week. In addition, the men took either 150 mg of resveratrol a day or a placebo pill.

At the end of the study, the placebo group was more physically fit than when they started. But the resveratrol group had *no improvements*.

That's right—they worked out at a high level for four weeks but had *nothing* to show for it.

That just reinforces what I've said before: There is no pill that can replace a healthy diet, and there is certainly no pill that can replace exercise.

The resveratrol fable

So why does resveratrol, which occurs naturally in the skin of red grapes, get so much hype?

One reason is that resveratrol has long been associated with the healthy Mediterranean diet. But there is a lot of sleight of hand in this assumption. Many studies have identified olive oil, fish and seafood, vegetables, fruits, and nuts as the Mediterranean diet's healthiest foods. *Not* grape skins—and, thus, <u>not</u> resveratrol.

Of course, red and pink wines are made with red grape skins. And there are health benefits associated with moderate consumption of red wine (which contains some resveratrol). But there are also benefits from moderate consumption of other alcoholic beverages that don't contain any resveratrol, including white wine, beer, and vodka. (The latter is especially healthy with orange, cranberry, or tomato juices.)

And yet, red wine gets all the health hype simply because there are more studies on it compared to other alcoholic beverages. That's what happens when something is the pet theory of nutritional statisticians. And red wine is considered more politically correct among the elitist, ivory-tower academics who dominate research (at least compared to beer or liquor; although it's a little surprising they passed up the Chardonnay).

But, finally, the rest of the moderate drinkers have caught up. In this era of stress-related chronic diseases, I believe the health benefits of alcoholic beverages can be traced to the obvious relaxation and stress reduction that results from moderate drinking—not from any resveratrol "magic bullet."

Resveratrol's little-known rival offers real, science-backed benefits

Frankly, a major benefit of a supposed magic bullet is that it makes it easier for researchers without imagination to design and conduct the same old kinds of studies—regardless of whether the results actually mean anything for real human biology, nutrition and health.

As I reported in my *Daily Dispatch* e-letter back in July ("Forget about resveratrol, as I've said before"), much of the research showing the benefits of resveratrol was proven to be outright fraud by one irresponsible researcher. But as Mark Antony said in Julius Caesar's funeral oration (after his friends, Romans and countrymen had lent him their ears), "The evil that men do lives after them; the good is oft interred with their bones."

But make no bones about one supplement that really <u>can</u> enhance your exercise regimen—South African rooibos, otherwise known as red bush. While I won't go so far as to call it, or anything else, a "magic bullet," rooibos does offer a myriad of benefits because it provides healthy hydration at the cellular level. In turn, it helps your muscles use carbs better, and lowers blood sugar. It also inhibits cells from storing extra fat, which helps keep your weight down.

Rooibos is available as a powdered extract that can be added to the water you drink while exercising, or any other hot or cold beverage. Or you can take rooibos as a supplement in combination with dandelion. This dynamic duo has been shown to enhance physical performance and support vitality.

Citations available online at www.DrMicozzi.com

The unnecessary surgery bringing Medicare to its knees

Back in August, I sent out a *Daily Dispatch* e-letter about a new study showing that a whopping <u>56</u> percent 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 painfree 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 percent* 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 <u>\$3.7 billion</u> 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 <u>every year</u>. 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 percent 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 percent 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

Continued on page 6...

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 proficiencyas 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 "naturalknow-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, as I reported in last month's *Insiders' Cures*, 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 three 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 (see page 1, this issue). 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-thatbe 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.

Citations available online at www.DrMicozzi.com

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.

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 yelloworange-red compound found in kelp, fish, shrimp and other crustaceans.

Continued on page 8...

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.

On land, astaxanthin is prominent in leafy green vegetables (together with several other carotenoids), sweet potatoes, and the healthy spice turmeric (which I told you about in last month's issue of *Insiders' Cures*).

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 nonsteroidal anti-inflammatory drugs (NSAIDs) such as osteoarthritis medications.

There's a cornucopia of astaxanthin and other carotenoids in the natural world (for more on how carotenoids and other plant pigments are produced, see the sidebar on page 7). 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.

ASK the INSIDER

Hi Doc. There is some talk • about the need to combine vitamin K2 with vitamin D3 supplementation. Could you give us your views on that?

Thank you for your question. There has indeed been a lot of talk about vitamin K2 over the past year or two. So it is perfectly reasonable to have questions. But in my view, it is just that—a lot of talk.

This is another example where the talk in the natural products industry has gotten way ahead of the science.

It's not that I don't think vitamin K has a valuable role in human health. For decades, medical science has recognized vitamin K for its role in preventing hemorrhaging and blood loss. This function is, of course, critical—and potentially lifesaving.

But we still don't even know what the human nutritional requirements for vitamin K2 are. We do know, however, that there are dangers associated with excess vitamin K consumption.

So, I don't believe there is any responsible medical or scientific basis for taking vitamin K supplements unless you are specifically found to be deficient in this nutrient by a physician.

The bottom line is, there simply

isn't enough evidence to support general daily supplementation with this nutrient.

On the other hand, the evidence supporting the need for vitamin D supplementation is overwhelming and growing every day. In fact, I'll give you even more important news about vitamin D's health benefits (this time, for lung disease) in next month's issue of *Insiders' Cures*.

In the meantime, don't let the unanswered questions about vitamin K2 keep you from getting enough vitamin D3. I recommended 5,000 IU of vitamin D per day—especially this time of year.