

The end of the antibiotic era Deadly superbugs are about to make routine medical procedures downright deadly

Protect yourself and your loved ones in 5 simple steps

As any history buff knows, we need to learn from our past—or risk repeating it. That's why a new warning from the authors of a recent *Lancet* article from the UK is particularly alarming. Their research indicates that death rates from bacterial infection "might return to those of the early 20th century."

And we have antibiotic abuse to blame.

I've been warning about the dangers of antibiotics and their overuse for years. We've known for quite some time that using these drugs inappropriately would have disastrous results. Namely, they would allow more and more untreatable, dangerous infections to develop. Unfortunately, those warnings are no longer far off, theoretical concerns. The danger is at our doorstep.

"Super-bugs" that develop from antibiotic overuse are just around the corner, according to researchers in the UK. And the consequences are dire.

England's deputy chief medical officer, John Watson, puts the very real results of years of antibiotic abuse in perspective. "In just 20 years," he warns, "Routine surgeries such as hip replacements could result in death if the patient develops an infection."

"In wine there is wisdom, in beer there is freedom, in water there is bacteria." —Benjamin Franklin

But it doesn't take a Dr. Watson (or even a Sherlock Holmes) to decipher the evidence about overuse of antibiotics and the emergence of "super bugs."

Doctors just can't say no

The infuriating fact about these frightening new bacteria is that they could have been prevented. If only doctors had taken heed of the warnings and saved antibiotics for cases in which they're appropriate and absolutely necessary, we wouldn't be facing this new reality.

But they didn't listen. And

what's worse is that they're *still* not listening.

Every unnecessary antibiotic prescribed allows—and even encourages—bacteria to continue growing. They survive by mutating to develop resistance to the antibiotic.

So how did we get to this point?

Better off at the bottom of the ocean...

Before the 20th century, infectious diseases were the leading causes of death worldwide. Treatments for infection (like today's treatments for cancer) were highly toxic to the patient. The hope was to kill more bacteria cells than healthy cells using

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Copyright © 2013 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. arsenic, lead, mercury, and other toxic compounds.

Dr. Oliver Wendell Holmes acknowledged the danger of that contemporary approach. In an address to the Massachusetts Medical Society (publisher of the *New England of Medicine*—the U.S. counterpart to the British *Lancet*) in 1860, he stated, "If the entire materia medica, as presently practiced, could be sunk to the bottom of the sea, it would be all the better for mankind and all the worse for the fishes."

No wonder alternative, natural, "drugless" medical practices reemerged to new prominence during the time.

But then in the early 1900s came the development of "magic bullets" for treating infections. Poisons were no longer needed.

The "magic" of the new antibiotics was that they didn't kill bacteria outright. They simply slowed their growth. Which allowed the immune system to overcome the infection naturally. (This approach is similar to how the body controls infection naturally. For example, fevers also slow bacterial growth, allowing the immune system to naturally overtake the infection—see the sidebar on page 3.)

It was a boon to the practice of modern mainstream medicine. But this advancement came with a price. One we're paying now—in more ways than one.

Nearly two decades ago, when directing the College of Physicians in Philadelphia, I predicted that the medical "arms race" to use ever more "magic bullets" would result in more deaths from "friendly fire." Looks like that time has arrived.

Without effective antibiotics, the *Lancet* articles says, "treatments from

minor surgery to major transplants could become impossible, and healthcare costs are likely to spiral."

But human use (and abuse) of antibiotics isn't the only factor involved in the rise of deadly super bugs.

The Centers for Disease Control and Prevention (CDC) here in the U.S. has pointed to another source of antibiotic overload...

"Farm fresh" antibiotic resistance

The CDC issued a report in 2013 confirming the connection between "routine" use of antibiotics in livestock and the growing number of "super bug" infections in people. The notorious MRSA (methicillinresistant *staphylococcus aureus*) is one such example.

In fact, more than 70 percent of antibiotics sold in the United States go to farm animals.¹ Industrial-scale farming causes animals to live in such poor, unnatural, overcrowded conditions that they develop infections easily. Antibiotics not only keep infection-related costs down, but they also "beef up" profits in another way. The drugs' metabolic effects fatten animals before they're sold off the farms.

These antibiotics affect us in two ways: First, they remain in the meat we eat, increasing our unnecessary exposure to antibiotics. Second, they contribute to the evolution of these drug-resistant super bugs in the environment. And as I've reported before, drug-resistant bacteria result in the deaths of at least 23,000 Americans per year and sicken 2 million more.²

In addition to the obvious problems of drug-resistant bacteria, antibiotic overuse is probably at least partially responsible for increasing problems with normal immune system function—which potentially result in problems like more allergies, and higher rates of invasive breast and prostate cancer.

Antibiotics also kill beneficial probiotic bacteria in the gastrointestinal tract. And that disrupts the balance of "good" bacteria that can help protect us from other diseases (see "Microscopic bugs may hold the secret to transforming your health" in the January 2013 issue of *Insiders' Cures*). Disrupting this balance also allows dangerous bacteria to take hold such as *Clostridium difficile*, which can indeed be difficult and almost impossible to treat... even fatal, especially in hospitalized patients.

So there's more than one reason to be concerned about the imminent threat of antibiotic-resistant bacteria.

Left hand, meet right hand

Is it too late to turn the tide? Well, it would help if government bureaucrats would get on board with each other.

In terms of public health, the CDC should stop pretending it has a role in controlling chronic diseases such as

high blood pressure and heart disease. Instead it should get back to what it's *supposed to be good at*—protecting us from infectious diseases. Their so-called campaigns against chronic diseases have been a bust, wasting both time and tax dollars to spread misinformation to the public.

My insider's hunch is that the CDC's sole motivation for "broadening" its mission was to compete with the National Institutes of Health for funding. But scaring the public about the threats of antibiotic

Continued on page 4...

The secret to beating ANY infection

Doctors continue to prescribe antibiotics for conditions that would heal themselves without antibiotics, such as most ear infections. Every time a doctor pulls out the prescription pad and scribbles a note for a "quick fix," we take one step closer to being unable to treat serious, *life-threatening bacterial infections* when we really need to.

So I'd like to point out an important fact that has been disregarded all along. Overcoming <u>any</u> infection requires a healthy immune system. Antibiotics simply slow the growth of bacteria long enough for the immune system to outrun the bacteria. Plus, a fever is a natural antibiotic that also slows the bacteria until the immune system is able to do its work. But instead of working with the symptoms (what the body is doing to try to heal itself), mainstream medicine too often focuses on relieving or eliminating those symptoms (such as fever). This approach simply makes the body more reliant on outside artificial treatments.

And of course, antibiotics only help with bacterial infections, not with viral infections.

If physicians focused on supporting the immune system, antibiotics would be far less necessary. And the best place to start is with diet. Poor or inadequate nutrition acts in synergy with infections to make them more dangerous. Around the world, medical scientists have shown for decades that better nourished populations are less susceptible to the scourges of infectious disease. But that logic has not been extended to the United States.

In addition, several specific nutrients help support the immune system—especially vitamin C and zinc, as well as vitamins A, B, D and E.

Many herbs also naturally boost the immune system, such as Echinacea and goldenseal. (These should only be used when you're coming down with something, not daily). Your immune system overcomes viral and fungal infections, as well as bacterial infections.

But without a healthy immune system, no drug will work. That is the key to understanding the fatally flawed public health approach to HIV/AIDS, for example. Instead of taking simple, effective measures proven to prevent the disease, public health approaches have focused on developing expensive drugs that can't work. Why? Because there is no healthy immune system to ultimately overcome and cure infections.

The same is true with antibiotic misuse. The problems are only "controlled" or hidden, leading to development of more and more dangerous strains of bacteria and fungi harboring in inadequately treated patients. And that can potentially expose the entire population to deadly infections—but we'll have no antibiotics strong enough to treat them.

resistance should be a great way to ensure their continued tax funding.

The Food and Drug Administration (FDA) should also get on board. They could reduce people's dependence on antibiotics by adopting a truthful, sensible approach to all the science behind natural products. They could stop persecuting companies who are telling the truth about the health benefits of natural foods, including boosting natural immunity. And they could do more to encourage the development of new, effective treatments for serious, life-threatening infections. Instead of focusing on "blockbuster" drugs for semiimaginary conditions such as "Low-T" (see page 6) and questionable "risk factors" like cholesterol.

And while I'm dreaming, perhaps the U.S. Department of Agriculture (USDA) could get also on board and stop labeling artificial hormone- and antibiotic-fattened beef as "superiorgrade" meat.

Of course, all of this would require the right hand of government knowing what the left hand is doing, and taking some real responsibility and accountability for public health. But I don't have too much hope for that.

Fortunately, there are some things we can do as individuals.

Protect yourself from superbugs in 5 simple steps

Here are some common-sense steps you can take to protect yourself from antibiotic-resistant bacteria, and help stem this growing public health problem.

- **Practice good hygiene.** The simplest step you can take is to wash hands well with regular soap (*not antibacterial agents!*) and water.
- **Don't take antibiotics** unless you have a bacterial infection that requires treatment with an antibiotic. The best way to determine whether you really need an antibiotic—and which one(s) is for your doctor to take a sample of the infected area. For example, take a swab of your sore throat and then submit it to the lab to (a) detect the presence of bacteria, (b) determine which bacteria and (c) test to see which antibiotics will work against it. Without taking these steps, it is guesswork.

As many as half of all antibiotic prescriptions are prescribed when they're not needed, or they're misused. Which leads me to my next piece of advice...

- If you are appropriately prescribed antibiotics, **take the full dose for the full course of treatment**. Up to one-third of prescriptions are not taken correctly. Inappropriate practices double the use of antibiotics without any clinical benefit whatsoever.
- Only choose meat and dairy that are labeled "organic" and "raised without antibiotics."
- Keep your immune system in good working order. This is probably the single most important thing you can do for your health. Unfortunately, it's also probably the single most overlooked step in fighting deadly "super bugs." See the sidebar on page 3 for more insight on this.

So while the CDC is wringing its hands, keep washing yours and following the other simple, sensible advice for good health. After all, the best offense we have against deadly super bugs is still a good defense.

Citations available online at www.DrMicozzi.com

10 tips for a balanced diet on a balanced budget

The mainstream media likes to lodge politically correct complaints that a healthy diet is too expensive for the average American. That's simply not true. Sure, if you only shop at overpriced places like Whole Foods and other upscale food emporia, you can blow your food budget. But those money pits are not the only places to buy high-quality foods. In fact, it seems to me that overpaying for food has become the latest fashion statement by urbanites, suburbanites, and the politically correct who aren't actually clued in to all the really important information about good nutrition.

Really, it's not rocket science. In fact, your grandparents knew just about all they needed to know about nutrition by living on the family farm. And there was nothing fancy about the family farm. So, how can you watch your expenses while staying right at your usual grocery store? Well, the good news is, most regular supermarkets have already responded to consumer demand by supplying sections with fresh, healthy, organic foods of all varieties. Many also offer produce grown within 50 miles, so you can support local farmers instead of big agri-business. With that in mind, here are 10 simple tips for improving your diet without breaking the bank.

1. Forget all the fad foods. As with too many dietary supplements, the current "it foods" are hot because of hype, not nutritional science. There is no reason to buy goji berries from the Himalayas at \$14 a pound when raisins, for example, are filled with constituents like resveratrol, which have been *better* studied by science. And cleverly packaged pomegranate juice is good for you, but it's no better than any number of fruit juices in terms of antioxidants. If you want to drink juice (though I prefer water-check out #10 on this list), you can approximate the taste of pomegranate juice-at far less cost. Just mix cranberry juice with a little lemon, both of which also have a host of health benefits.

2. Choose your organics wisely. Organically grown foods allow you to avoid pesticides and other agricultural chemicals. Organic makes sense with fruits and vegetables that you can and should eat with the skin: apples, celery, cherries, grapes, nectarines, peaches, pears, peppers, potatoes, raspberries, spinach, and strawberries. The skins have more vitamins. If a fruit or vegetable has a thick inedible skin, like bananas or pineapples, paying extra for organic doesn't make sense. When it comes to meat, milk, butter, and eggs, organic makes a world of difference in both healthfulness and taste. So it's worth the "splurge."

3. Budget for beef. Despite years of government health "experts" trying to convince the public that red meat will kill us, the fact is, red meat provides bioavailable protein, B vitamins, essential minerals, and a host of other nutrients hard to get from other sources. So forget everything you've heard from so-

called government "experts," and indulge in a hearty steak—or bottom round, hanger, tri-tip, or shoulder cut. (Just make sure to budget a little more for the organic varieties. As I said above, this is one instance where it's worth it—from both health and taste perspectives—to spring for organic.)

Really, it's not rocket science. In fact, your grandparents knew just about all they needed to know about nutrition by living on the family farm.

4. Don't buy bagged lettuce. It may seem convenient, but bagged salad greens are ridiculously expensive and create unnecessary packaging and waste. Plus, the supposed convenience of not having to wash the lettuce disappears when you consider the fact that contamination appears to be more of a problem with bagged lettuce, as I pointed out in the October 12, 2012 Daily Dispatch "It's (not) in the bag." Get your produce fresh, whole, and un-bagged. Another bonus: Unbagged produce stays fresh longer, since grocers water it periodically.

5. Buy single ingredient spices in larger quantities. Spices are herbal remedies by another name *and* they're calorie-free. So it's definitely worth budgeting for them. But make sure you're not paying more for packaging than for contents. Buy in bulk from natural food stores. Avoid expensive spice mixes and instead just use specific individual ingredients that are called for in recipes. Most spices will stay fresh for at least two years. (Powdered red spices, such as cayenne, chili, and paprika have a shelf-life of one year.)

6 Make your own salad dressings. There's simply no reason to buy bottled salad dressings. In addition to being expensive, they are full of unhealthy ingredients, fats, sugars and/or salt that have no place in a healthy salad. A basicbut delicious—salad dressing takes seconds to make. Just mix olive oil with vinegar or lemon oil. Then if you feel like it, throw in some of those healing (and calorie-free) spices for added flavor. To reap the health benefits of olive oil, choose a highquality oil and keep it fresh by using it within three months. (By contrast, vinegar can be kept around for years.)

7. Go nuts. Nuts and seeds are loaded with heart-healthy essential fatty acids and other bioavailable nutrients and minerals, and they have been shown to lower the risk of many chronic diseases. They also help you feel fuller throughout the day, making them a good snack food. Although they're relatively expensive, a little goes a long way. Save by buying in bulk and keeping them in the freezer.

8. Keep cereal simple. Forget the pricey, high-calorie, pre-sweetened cereals, as well as the trendy (and spendy) designer granolas. Instead buy a big container of steel-cut oats. The only oats that are really heart-healthy are steel-cut, because they retain the healthy bran and not just the carbs. Use the oats to make old-fashioned hot oatmeal and add natural sweeteners such as maple syrup, honey, molasses, or agave. Toss in some dried fruit and nuts to make a quick, delicious, and inexpensive breakfast.

9. Give your trash can a break.

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Americans waste 15 to 30 percent of all the food they buy. When tomatoes get a little soft, chop them and cook them to make your own tomato sauce base. When vegetables begin to limp in the "crisper," use them to make your own vegetable stock. When bread turns hard, make breadcrumbs or croutons for your salads. When a recipe calls for egg whites, save and cook the yolk for a healthy sandwich or salad. When you buy a whole chicken, cook and consume the whole thing (for a recipe, see the November 22, 2013 Daily Dispatch, "The Russian Bear's Cure-all Chicken Soup").

10. Drink one thing. There is no need to consume any type of expensive bottled beverages, carbonated sodas, or juice drinks. You are paying for bottling, transporting, and stocking drinks that are 99% water—a highly wasteful use of packaging, energy, fuel, and space just to provide products that "replace" water. Many of these beverages also contain unhealthy, high-fructose corn syrup or artificial sweeteners. Studies show that instead of being a healthier option, artificial, zerocalorie sweeteners can actually be just as unhealthy for metabolism, obesity, and diabetes as is sugar.

Instead, you should get the fluid you need from water. Of course, since today's public water sources are full of chlorine and toxic hydrocarbons, it's important to invest in a good filter. And to truly get the hydration you need—at the cellular level—I recommend adding South African red bush to your water. You can get it in tea bags or opt for the convenient Red Joe powdered drink mix that I helped formulate. (You can learn more about red bush in the article "NFL gets into the 'Red (Bush) Zone'" in last month's issue-as well as on my website, drmicozzi.com.)

Weeding out the "anti-aging" winners

Two years ago, I was asked by New Jersey governor Chris Christie to serve on a panel of experts called together to review problems with medical prescribing guidelines for dangerous "anti-aging" hormones. Among other problems, it was yet another example of the waste, fraud, and abuse that dominate government spending. The state was spending *millions* of taxpayer dollars each year on needless hormone treatments for public employees. All in the name of finding that mythical "fountain of youth."

The state's new guidelines (which I successfully helped to change) were based on correcting the faulty anti-aging "logic" and "science" perpetuated by both mainstream medicine and many natural know-italls. That is, the idea that our normal aging process, which includes normal shifts in hormone levels, needs to be somehow "corrected" in everyone.

In fact, an entire industry

of inappropriate and dangerous treatments has been created to counter the so-called "health problem" of aging. Aging itself is not a medical problem to be treated with "antiaging" gimmicks, but a natural process.

And of course, you and I already know that natural processes should be *supported*, not thwarted.

The good news is, natural ingredients do exist to relieve uncomfortable symptoms and keep your cells young, while still allowing the body to do its work. But I guarantee they're not the ones you've seen being hawked by the "antiaging" industry.

The myth of "hormone deficiency"

Many of the natural changes that occur throughout life are related to alterations in natural hormone levels. As women complete their childbearing years, they produce less estrogen and progesterone. This phase is known as menopause. The parallel shift in men is known as "andropause," when testosterone levels naturally decline.

All of these changes are *completely normal*. But as I've pointed out before, an entire (frequently fraudulent) industry has arisen to sell treatments to remedy decreasing testosterone levels in men. They've even given this "condition" the catchy moniker "Low-T." And the hype surrounding it has led to countless inappropriate prescriptions for hormones. In fact, even the *Journal* of the American Medical Association alerted its readers to the error of these hormone-happy ways.¹ And that's saying something! (You can read more about my review on this report in the September 13, 2013, Daily Dispatch, "Low-T'-men's health or men's hype?")

But this trend isn't just unnecessary, it's also dangerous.

Administering male hormone treatments can increase risk of a number of diseases, including prostate cancer, prostatic hyperplasia, and cardiovascular diseases.^{2,3} And all for what? A "problem" that never needed fixing in the first place.

Protect the source

Instead of fixating on hormone replacement, we <u>should</u> be looking at promoting our bodies' own ability to create the right, natural levels of hormones. In men, this approach involves protecting and supporting the special cells of the testes that make testosterone. And a recent study sheds more light on a natural and safe way to accomplish that goal. Not surprisingly, it's with a natural herb I've been researching and recommending for years.

The researchers looked at red bush (which I've long known is essential for healthy hydration—another key to healthy aging) together with dandelion extract. The results? The combination dramatically improved symptoms of andropause.⁴

Of course, if you've read my prior reports about red bush, you know it has an unparalleled ability to hydrate muscles and tissues *at the cellular level*. That's absolutely crucial to addressing age-related changes. But regular readers also know that, over the years of firsthand observation and research, I have become convinced that red bush has many other healing properties—from helping blood sugar get into muscles to controlling diabetes. And now this new research shows it can also promote healthy aging.

In combination with dandelion which also has antimicrobial, antidiabetic, and anticancer properties—red bush appears to be even more powerful. The researchers studied extracts from dandelion and from red bush individually and then together, at different doses. They wanted to find out how well these natural substances could protect testicular cells and

Instead of fixating on hormone replacement, we <u>should</u> be looking at promoting our bodies' own ability to create the right, natural levels of hormones.

boost testosterone production. In the tests on cells, the researchers found that the dandelion and red bush combination protected the cells from oxidative stress and increased longevity—by up to 38 percent! In lab animals, the combination boosted testosterone production by 43 percent. Even more importantly, it translated into a 25 percent improvement in physical performance.

The study didn't just look at cells and lab animals, though. The researchers also conducted clinical trials on dandelion and red bush in 30 healthy men over 40. And the results were stunning. After just one month, men taking 400 mg of the dandelion– red bush supplement per day had a 20 percent reduction in andropause symptoms.

Here's another very important finding that I found buried in the text of the original full research report: The mens' gait was markedly improved after taking red bush and dandelion. That's very significant because, as I explained in "Survival at the gait" (in the May 2013 issue of *Insiders' Cures*), gait (the ability to walk efficiently and effectively) is the single <u>best</u> predictor of longevity. Period.

This comprehensive look at the effects of red bush, combined with dandelion, points us toward a much more likely "fountain of youth" than the hormones Big Pharma is so intent on peddling, or the so-called "antiaging" remedies of irresponsible natural know-it-alls and marketeers. This simple and safe combination has proven effects on testicular cells, cell longevity, and testosterone production in individual cells, animal models, <u>and</u> human clinical trials.

What's more, it protects against oxidative stress, increases cellular longevity, promotes healthy aging, bolsters quality of life, and improves longevity in men. Finally, because the new research tested different doses, we know for the first time what levels are ineffective, and most effective, and where the "therapeutic threshold" lies in terms of required daily consumption.

If you are not already taking Red Joe brand red bush, it provides an effective dose for healthy aging support, so there is another reason to start. You can order Red Joe now at www.drmicozzi.com.

This is the type of proven and inexpensive "prescription" government panels should be recommending—*not* the tired, overused, and dangerous hormones that have already cost patients and taxpayers millions and millions of dollars! But while common sense waits to make its way into the public discourse about health and aging, you can keep counting on *Insiders' Cures* to alert you to the health solutions that actually do work.

Citations available online at www.DrMicozzi.com

ASK the INSIDER

I understand the FDA is going to limit trans fats. Can you discuss what the replacement will be, and whether there are any health implications?

I applaud the move to ban trans fats. It already has the food industry scrambling to find replacements. But unfortunately, those replacements might be just as bad as trans fats.

There are only two practical options for replacing synthetic trans fatty acids (TFAs) in foods. First, food manufacturers could go back to simply using <u>natural saturated</u> *fats*. They are found in nature and in natural dietary sources.

Option number two is to modify fats by hardening them, through a process called inter-esterification (IE). Mainly two saturated fatty acids (IE 18 and IE 16) have been inter-esterified to harden oils. Food scientists use the IE 16 from fully hydrogenated palm oil or IE 18 from fully hydrogenated soybean oil.

Both these non-TFA types of fats have been studied for their effects on cardiovascular diseases for the past 40 years. The results have been mixed. Some studies revealed negative effects on lipoproteins, blood glucose, immune function, and liver enzymes.

Researchers have concluded that we need to learn a lot more about IE fat consumption before it becomes embedded in the food supply as a replacement for TFA.

But the bigger point is that there is no reason to include foods that contain TFAs—or any of their potential replacements—in a healthy diet in the first place. Whether TFAs are replaced with saturated fats, palm oil or IEs, they are not foods we should be eating. These kinds of fats are needed to artificially "harden" fats in various processed foods. But healthy foods don't need their fats to be hardened.

I noticed the Smart Science • product line contains similar ingredients. Would there be negative effects from taking your formulas in combination?

I am glad you asked this • question. We use the best micronutrients for each purpose in each product based upon all available science The doses selected are those indicated to be most effective across a number of scientific studies. We never throw in "extra" doses and ingredients just to make a formulation sound better, like many dietary supplement marketeers who appear oblivious to the real science. We also take into account historic usage. The same information medically advanced European countries use to determine whether to grant regulatory approval to a supplement.

Yes, you will find that some of the same micronutrients appear in more than one Smart Science formulation. As I often discuss, active micronutrients have many biological functions and beneficial effects. Each dose of every micronutrient in every product is intentionally designed so that multiple products can be taken together safely, never exceeding completely safe overall doses.

Unlike most drugs, micronutrients have a very high "therapeutic index" pharmacologically. That means the effective dose of a micronutrient is much, much lower than the dose that could be considered to have any unsafe side effects.

So, yes, you can safely take more

than one Smart Science product at the same time. In fact, you can take them all together. I do, and I recommend that members of my family take more than one every day, and some take them all.

But of course you should always consult with your doctor before taking any new supplement.

There is simply no "one-size-fits-all" little multivitamin pill that works if you take it "once a day." I'm constantly reminding readers that the vast majority of multivitamins taken in the United States today are indeed worthless. As far as I can tell, the ingredients, doses, and combinations are not based upon any real science. Plus, they tend to be of poor quality, and the body cannot use them effectively.

If you want high-quality nutrients and doses proven by science, you simply won't find them in a multivitamin pill. Remember, you are trying to *supplement* your diet with optimal doses of micronutrients, while also getting biologically active and beneficial herbal ingredients. It's not like *The Jetsons*, where a whole day's requirements can be served up in a little bitty pill on a plate.

I have to laugh (or sigh, or cry) when the mainstream medical minions and the media get all into a froth when they suddenly "discover" that multivitamins are worthless. Yes, multivitamins are worthless. That's why we don't offer them and never will—and why you should not take them. It takes more knowledge and effort than that to obtain appropriate and optimal dietary supplementation. Maybe eventually the mainstream will figure out something useful. In the meantime, you have Smart Science on your side.