



Abraham Verghese

## None-A-Day

Why your bottles of supplements and vitamins are a prescription for trouble.

MY MOST RATIONAL FRIENDS AND PATIENTS, the kind of people who would have wanted irrefutable evidence of WMDs before we went into Iraq, do not require such proof when it comes to taking kava, comfrey, Xango juice, or blue cohosh. Walking down the supplements section of my local Walgreens, I worry. I am convinced that there are enough vitamins and supplements being peed out into sewers and emptying into the Gulf of Mexico each day to provide for the world's daily requirements for the next century—and to keep whales and every other marine animal from going extinct. A reasonable person seeing shelf after shelf of these bottles in a reputable pharmacy chain might believe that the leaf or tablet contains what it is said to contain, in the quantity it is meant to contain, and that it produces the effect it is meant to produce—all without adulterants. Of all of these, the last belief is what concerns me the most. My health-conscious friends who buy their drinking water at the grocery store because they do not trust tap water will swallow something labeled “all natural” or “herbal” without knowing how much lead, mercury, or cow poop they are consuming, though I must concede that all three—particularly the last—are perfectly natural.

“That can't be,” you will say. “This is Texas, not Guangdong or Bombay. Surely some agency is regulating what is in there.” The government *was* regulating until 1994, when Congress passed the Dietary Supplement Health and Education Act. It absolved the Food and Drug Administration from having to monitor anything that supplements the diet, including vitamins, minerals, herbs, botanicals, or amino acids. Which is why, if you recall, it was about that time when your friendly pharmacy chain began to have a full aisle dedicated to herbals and supplements. Regardless of what the product actually contains—cow poop, for example—as long as it is labeled a dietary supplement, then the manufacturer isn't required to demonstrate efficacy or safety or even report adverse events. The FDA does require a disclaimer: You can say your cow poop *promotes* tonsorial growth on the scalp of men and women and even furniture; you can say that it *enhances* sexual vigor; you can say that it *stimulates* growth receptors in the male sex organ. The only thing you *cannot* say is that it is “intended to diagnose, treat, cure or prevent any disease.” And yet, most of us will take these supplements to do just that. I looked at the saw palmetto bottle in my medicine cabinet just to be sure. It claims only to “promote prostate health.”

Strangely, I am as guilty of this “magical” thinking as anybody. I want to believe that a pill made from some mysterious substance found in the Amazon or Africa will do all the wonderful things it claims it will do, and I would hate for it not to work from lack of belief. Indeed, the truest altar to our faith in America is our medicine cabinet. Next to the boring, white-capped, childproof amber prescription bottles that hold our blood pressure, cholesterol, and other pills (those workhorses of American medicine that have undoubtedly made us live longer) sit the flashier containers of lycopene, CoQ10, ginseng, ginkgo, shark cartilage, milk thistle, and other sacred offerings we make to the temple of the body. Don't ask us how or why those work. We know. Have faith.

As a young medical student in India, I detected in myself the early signs of a thinning scalp. The dermatology professor I went to see, a sound scientist, gave me the cold, hard facts: Genetics and

testosterone were working against me. Only eunuchs were guaranteed a full head of hair. Enjoy it while you have it, he said. This capable dermatologist took away my last hope. Short of castration, which I thought was excessive, my destiny was predetermined. I had all the facts. My quest should have ended, but the wish for magic never dies. A friend who was an airline pilot and a yoga teacher (a balance of inner and outer space that I envied) recommended I see an ayurvedic physician, a man whom his family swore by. “Just see him. Have faith. You never know.” Words to that effect.

I went. I took a bus to Parry’s Corner, in Madras (a city now called Chennai), a bustling part of town where the redbrick Indo-Saracenic High Court building dating to 1892 dominates and where lawyers in black robes over white cotton shirts carried files with shoelace bindings that kept the papers from falling out. I walked down back alleys to find the good doctor’s residence. He turned out to be a septuagenarian with a reassuring, down-to-earth manner, a man with an interest in astronomy and astrology, as well as ayurveda. His office was the front room of his modest house, just inside the street, but shaded by a porch. His dark, cozy space had shelves on one side containing a few specimen jars of the kind that in medical museums hold Cyclops babies and Siamese twins, but his had leaves, tubers, powders, and seeds. Next to those were many smaller bottles of oils and various liquid distillations. Books, both English and Sanskrit, filled another wall, and a Sanskrit tome the size of the Gutenberg Bible lay open on a table. From the titles of the English books I could tell this was a well-read and well-educated man with a broad interest in science. The place had the redolence of an herbarium, the mystery of a sorcerer’s den, yet it was as warm and inviting as my grandmother’s kitchen. I told myself that when I became a licensed physician, this was what I wanted my office to look like. The dermatologist’s office with its plain walls and dull certificates in duller frames inspired no such passion.

He sat in a cane-bottomed rocking chair, in front of an old teak desk, and waited, smiling, as if he had all the time in the world. As I offered this lovely man my medical complaint, I pushed from my mind the thing I’d noticed about him the moment I walked in: This oracle of ayurvedic knowledge had about as much hair as a billiard ball. He listened carefully, sympathetically. He took my pulse, looked at my tongue, and inspected the area in question. What he saw, if he compared it with his own scalp, was a veritable forest. He might have been envious, but equanimity and envy never go together. He had equanimity. To his credit I must say he promised nothing. Looking back, he recognized my symptom was not hair loss, or even anxiety about hair loss, but an existential crisis of some sort. I left with a special oil he’d compounded and funneled into an amber bottle. I applied it as directed till the bottle was done, and though it grew no hair, I never lost my high opinion of the prescriber. Indeed, it remains the most satisfying doctor’s visit I have ever had. Few physicians (and I am no exception) in their white coats and sterile exam rooms can conjure up the kind of therapeutic presence that he had. God knows what was in that bottle. It was precious, and in its own way it worked.

I keep long hours, and so what little TV I am aware of is the very-late-night stuff. There are so many people willing to sell you their patented get-rich schemes, which almost always involve real estate foreclosures and the like. Why share this secret at the incredible price of \$49.99 (that’s three installments, of course) if it is such a moneymaker? You don’t see Bill Gates handing out Microsoft code. Surely it must be easier to get rich selling you the “system” to get rich than to go out and do it yourself. I will share with you a system not sold on TV. (I am dispensing it free—“shareware” if you like—but if you want to send me a check, that will be fine.) First, take out a full-page ad in your hometown paper. Make it dense with text, graphs, before-and-after pictures. Focus on words like “breakthrough,” “scientifically proven,” “all natural,” “secret,” and claim your product comes from sea coral, Asian herbs, or African forest vines. Choose a disorder for which medical science has no easy fix (hair loss, obesity, fatigue, chronic joint pain) or an attribute everyone wishes to have (more energy, better memory, younger-looking skin, admirable erections). Paste in testimonials from eminent doctors (the only thing you need to do is use the words “eminent doctor” before their name, and if their degree is in anthropology or English literature,

that's no problem); include excerpts from premier scientific "journals" (the simplest thing is to create your own), but don't claim to cure, prevent, or diagnose; and leave an address for the readers to send a check. Scoff all you want at my scheme; the fact is that the persons behind each of those products are laughing all the way to the bank, while dispensing something that, if you are lucky, is no worse than cow poop.

Why would Congress hamstring the FDA and jeopardize your health and mine? Why, you ask, did Congress pass the Dietary Supplement Health and Education Act in 1994? Take a guess. For the greater good? Or because the supplement industry put on a huge and misleading campaign that scared us into thinking our access to vitamins and minerals was going to be taken away? Powerful senators and congressmen supported it, and the law passed. But the danger has become quite clear since 1994: The only way we are learning about toxic and undesirable effects is through poison centers and emergency rooms, if we learn about them at all, and it takes time for that information to be collected, connected, filtered, and for someone to say, "Wait a minute. Compound X is killing people!"

My friend Don Marcus, a distinguished rheumatologist and scientist who is a professor at Baylor College of Medicine, has a particular interest in this topic, perhaps because patients with chronic rheumatologic disorders are most at risk. He writes in the journal *Obstetrics and Gynecology*, "The consequences of this regulatory problem are illustrated by the damage caused by herbal weight loss preparations that contained ephedra and caffeine. It is estimated that 18,000 serious, adverse events and many deaths occurred before a ban on ephedra in herbal medicines went into effect in April 2004." The fact that an herbal medicine has been around for a long time is no reassurance. We recently learned of hepatitis and liver failure caused by traditional herbals such as kava and comfrey and about renal failure caused by African folk medicines. Why only now? Don writes, "Many herbal medicines used for centuries, including species of birthwort used in obstetrics, contain aristolochic acids. ... The toxicity of herbs that contain aristolochic acids was identified because of a cluster of over 104 cases of renal failure caused by an herbal weight loss preparation. Sporadic cases, which were identified subsequently, were not recognized in the past because of the latent period of months to years between ingestion of the herbal and development of renal failure or cancer."

I have tended to not debate my patients over their supplements. As an infectious-diseases physician during the AIDS epidemic, I took care of large numbers of patients with HIV in Boston, then Tennessee, then Iowa, and then, for sixteen years, in Texas. In those earlier days, when we had so little to reverse the course of the disease, patients in droves tried this or that. Every week something new popped up—chelation, cat's claw, mushrooms, various herbal teas. I said little. Why take away hope when I had so little to offer? I intervened once when poor parents who had already mortgaged their house to do chelation therapy for their son were selling their business to get "live cell" therapy in Mexico, when their son was at death's door. I talked them out of it, and he died.

But of late, I do have this discussion with all my patients, because if I am to care for them, I have some obligation to protect them from a threat that keeps mounting. I ask them to bring in a list of everything they consume. (It's amazing how often these herbals and supplements are not considered medicines.) I recommend a multivitamin a day, though even that might be excessive. With the water-soluble vitamins, at worst they get peed out. But certain vitamins, such as A, D, E, and K, are stored in our fat and stay around for a very long time; vitamin A in particular can cause liver damage. Some credible studies on vitamins and the prevention of cancer (vitamin E for lung cancer, for example) failed to show efficacy. Don't get me wrong: Vitamins work great if you have scurvy or beriberi or night blindness or one of the many discrete conditions that represent true vitamin deficiencies. But unless you are pregnant or have had weight-loss surgery or have some other medical condition, you get your "essential" requirements without much effort.

I see if my patients and I can agree to set aside the words “dietary supplements” or “herbals” and look at everything they take as a drug. The word “herbal” is particularly misleading, as it implies being gentle and safe. Digitalis, atropine, and many chemotherapeutic drugs and poisons are also herbal. I see if we can agree that the active ingredients of “herbal” or “natural” medicines are still chemicals. The trouble is that an herbal supplement can contain hundreds of active chemicals, and the chances of interactions with other things you consume are high. A California Department of Health Services study in 1998 showed that a third of Asian patent medicines contained undisclosed drugs or heavy metals. Here is what else has been found in so-called herbal medicines: analgesics, diuretics, corticosteroids, alprazolam, fenfluramine, colchicine, caffeine. The most famous, or infamous, is PC-SPES, which was said to help prevent prostate cancer. It turned out that this pill contained female hormones, a blood thinner, and an anti-inflammatory medicine.

The Internet is a double-edged sword when used as the sole source of information, particularly because one is often being directed to a manufacturer’s home page, or else the information at a reputable Web site is taken directly from the manufacturer. One study found that 81 percent of retail sites made illegal health claims, and 52 percent omitted the required FDA disclaimer. But I am neither proscriptive nor prescriptive. My job is to help the patient negotiate this minefield. I tell him hope is great and so is faith, but let’s be sure to put our hope and faith in things that we know work or, at the very least, things we know don’t hurt us. The state and the feds need to step back in before we have another ephedra situation. Meanwhile, as your physician, I’ll do my best to protect you. No bull. 🍀