

5 Vitamin Truths and Lies

Are you still relying on vitamins to keep you healthy?

Learn the truth about which supplements help and which ones you can toss.

Plus, find out the [25 foods that you can eat to get your vitamins](#).

By Christie Aschwanden From [Reader's Digest](#)

Once upon a time, you believed in the tooth fairy. You counted on the stability of housing prices and depended on bankers to be, well, dependable. And you figured that taking vitamins was good for you. Oh, it's painful when another myth gets shattered. Recent research suggests that a daily multi is a waste of money for most people—and there's growing evidence that some other old standbys may even hurt your health. Here's what you need to know.

Myth: A multivitamin can make up for a bad diet

An insurance policy in a pill? If only it were so.

Last year, researchers published new findings from the Women's Health Initiative, a long-term study of more than 160,000 midlife women. The data showed that multivitamin-takers are no healthier than those who don't pop the pills, at least when it comes to the big diseases—cancer, heart disease, stroke. "Even women with poor diets weren't helped by taking a multivitamin," says study author Marian Neuhouser, PhD, in the cancer prevention program at the Fred Hutchinson Cancer Research Center, in Seattle.

Vitamin supplements came into vogue in the early 1900s, when it was difficult or impossible for most people to get a wide variety of fresh fruits and vegetables year-round. Back then, vitamin-deficiency diseases weren't unheard-of: the bowed legs and deformed ribs of rickets (caused by a severe shortage of vitamin D) or the skin problems and mental confusion of pellagra (caused by a lack of the B vitamin niacin). But these days, you're extremely unlikely to be seriously deficient if you eat an average American diet, if only because many packaged foods are vitamin-enriched. Sure, most of us could do with a couple more daily servings of produce, but a multi doesn't do a good job at substituting for those. "Multivitamins have maybe two dozen ingredients—but plants have hundreds of other useful compounds," Neuhouser says. "If you just take a multivitamin, you're missing lots of compounds that may be providing benefits."

That said, there is one group that probably ought to keep taking a multi-vitamin: women of reproductive age. The supplement is insurance in case of pregnancy. A woman who gets adequate amounts of the B vitamin folate is much less likely to have a baby with a birth defect affecting the spinal cord. Since the spinal cord starts to develop extremely early—before a woman may know she's pregnant—the safest course is for her to take 400 micrograms of folic acid (the synthetic form of folate) daily. And a multi is an easy way to get it.

Myth: Vitamin C is a cold fighter

In the 1970s, Nobel laureate Linus Pauling popularized the idea that vitamin C could prevent colds. Today, drugstores are full of vitamin C-based remedies. Studies say: Buyer, beware.

In 2007, researchers analyzed a raft of studies going back several decades and involving more than 11,000 subjects to arrive at a disappointing conclusion: Vitamin C didn't ward off colds, except among marathoners, skiers, and soldiers on subarctic exercises.

Of course, prevention isn't the only game in town. Can the vitamin cut the length of colds? Yes and no. Taking the vitamin daily does seem to reduce the time you'll spend sniffing—but not enough to notice. Adults typically have cold symptoms for 12 days a year; a daily pill could cut that to 11 days. Kids might go from 28 days of runny noses to 24 per year. The researchers conclude that minor reductions like these don't justify the expense and bother of year-round pill-popping (taking C only after symptoms crop up doesn't help).

Myth: Vitamin pills can prevent heart disease

Talk about exciting ideas—the notion that vitamin supplements might help lower the toll of some of our most damaging chronic diseases turned a sleepy area of research into a sizzling-hot one. These high hopes came in part from the observation that vitamin-takers were less likely to develop heart disease. Even at the time, researchers knew the finding might just reflect what's called the healthy user effect—meaning that vitamin devotees are more likely to exercise, eat right, and resist the temptations of tobacco and other bad habits. But it was also possible that antioxidant vitamins like C, E, and beta-carotene could prevent heart disease by reducing the buildup of artery-clogging plaque. B vitamins were promising, too, because folate, B6, and B12 help break down the amino acid homocysteine—and high levels of homocysteine have been linked to heart disease.

Unfortunately, none of those hopes have panned out.

An analysis of seven vitamin E trials concluded that it didn't cut the risk of stroke or of death from heart disease. The study also scrutinized eight beta-carotene studies and determined that, rather than prevent heart disease, those supplements produced a slight increase in the risk of death. Other big studies have shown vitamin C failing to deliver. As for B vitamins, research shows that yes, these do cut homocysteine levels ...but no, that doesn't make a dent in heart danger.

Don't take these pills, the American Heart Association says. Instead, the AHA offers some familiar advice: Eat a varied diet rich in fruits, vegetables, and whole grains.

Myth: Taking vitamins can protect against cancer

Researchers know that unstable molecules called free radicals can damage your cells' DNA, upping the risk of cancer. They also know that antioxidants can stabilize free radicals, theoretically making them much less dangerous. So why not take some extra antioxidants to protect yourself against cancer? Because research so far has shown no good comes from popping such pills.

A number of studies have tried and failed to find a benefit, like a recent one that randomly assigned 5,442 women to take either a placebo or a B-vitamin combo. Over the course of more than seven years, all the women experienced similar rates of cancers and cancer deaths. In Neuhouser's enormous multivitamin study, that pill didn't offer any protection against cancer either. Nor did C, E, or beta-carotene in research done at Harvard Medical School.

Myth: Hey, it can't hurt

The old thinking went something like this—sure, vitamin pills might not help you, but they can't hurt either. However, a series of large-scale studies has turned this thinking on its head, says Demetrius Albanes, MD, a nutritional epidemiologist at the National Cancer Institute.

The shift started with a big study of beta-carotene pills. It was meant to test whether the antioxidant could prevent lung cancer, but researchers instead detected surprising increases in lung cancer and deaths among male smokers who took the supplement. No one knew what to make of the result at first, but further studies have shown it wasn't a fluke—there's a real possibility that in some circumstances, antioxidant pills could actually promote cancer (in women as well as in men). Other studies have raised concerns that taking high doses of folic acid could raise the risk of colon cancer. Still others suggest a connection between high doses of some vitamins and heart disease.

Vitamins are safe when you get them in food, but in pill form, they can act more like a drug, Albanes says—with the potential for unexpected and sometimes dangerous effects.

Truth: A pill that's worth taking

As studies have eroded the hopes placed in most vitamin supplements, one pill is looking better and better. Research suggests that vitamin D protects against a long list of ills: Men with adequate levels of D have about half the risk of heart attack as men who are deficient. And getting enough D appears to lower the risk of at least half a dozen cancers; indeed, epidemiologist Cedric Garland, MD, at the University of California, San Diego, believes that if Americans got sufficient amounts of vitamin D, 50,000 cases of colorectal cancer could be prevented each year.

But many—perhaps most—Americans fall short, according to research by epidemiologist Adit Ginde, MD, at the University of Colorado, Denver. Vitamin D is the sunshine vitamin: You make it when sunlight hits your skin. Yet thanks to sunscreen and workaholic (or TV-aholic) habits, most people don't make enough.

How much do you need? The Institute of Medicine is reassessing that right now; most experts expect a big boost from the current levels (200 to 600 IU daily). It's safe to take 1,000 IU per day, says Ginde. "We think most people need at least that much."

So here's the Reader's Digest Version of the truth about vitamins: Eat right, and supplement with vitamin D. That's a no-brainer coupled with a great bet—and that's no lie.