

Time in the Sun: How Much Is Needed for Vitamin D?

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Coinciding with the first week of summer, a study published today underscores the importance of getting adequate amounts of sunlight for its vitamin D-boosting benefits. The research, published in the Archives of Internal Medicine, shows that those with the lowest vitamin D levels have more than double the risk of dying from heart disease and other causes over an eight-year period compared with those with the highest vitamin D levels. The researchers cite "decreased outdoor activity" as one reason that people may become deficient in vitamin D. Another recent study found an increased risk of heart attacks in those with low vitamin D levels.

In the winter, it's impossible to produce vitamin D from the sun if you live north of Atlanta because the sun never gets high enough in the sky for its ultraviolet B rays to penetrate the atmosphere. But summer is a great time to stock up on the nutrient. When the sun's UV-B rays hit the skin, a reaction takes place that enables skin cells to manufacture vitamin D. If you're fair skinned, experts say going outside for 10 minutes in the midday sun—in shorts and a tank top with no sunscreen—will give you enough radiation to produce about 10,000 international units of the vitamin. Dark-skinned individuals and the elderly also produce less vitamin D, and many folks don't get enough of the nutrient from dietary sources like fatty fish and fortified milk.

The government's dietary recommendations are 200 IUs a day up to age 50, 400 IUs to age 70, and 600 IUs over 70. But many experts believe that these recommendations are far too low to maintain healthful vitamin D levels. They advocate for supplementation in the winter of about 2,000 IUs per day and a dose of daily sunshine in the summer.

The sunshine vitamin may protect against a host of diseases, including osteoporosis, heart disease, and cancers of the breast, prostate, and colon. What's more, sunlight has other hidden benefits—like protecting against depression, insomnia, and an overactive immune system.

Given all the upsides of basking at least briefly in the summer sun, many experts now worry that public-health messages warning about skin cancer have gone overboard in getting people to cover up and seek the shade. U.S. News got in touch with Robyn Lucas, an epidemiologist at Australian National University who led a study published in the February issue of the International Journal of Epidemiology.

Her finding: Far more lives are lost to diseases caused by a lack of sunlight than to those caused by too much.

Do you think the United States and other western countries have gone too far in promoting protection from the sun?

Possibly. Sun protection messages arose in response to rapidly increasing rates of skin cancers, and they were an essential public-health message. But we now recognize that some sun exposure is important for health, at the very least, to maintain healthful vitamin D levels. (Sunscreen blocks out nearly all UV radiation.) Taking this into account, the Cancer Council of Australia has eased its sun protection message a little over the last few years and now recommends that if you're out in the sun for relatively short periods, with a UV index less than 3, which indicates a moderate amount of UV rays hitting your area on a given day, then sunscreen and other sun protection (like hats and protective clothing) are not required. Beyond this, I believe we all need a little unprotected time in the sun during the middle hours of the day when the sun is at its highest and UV-B rays can penetrate the atmosphere.

How much sun is it safe to get without sunscreen?

It's difficult to quantify how much since skin pigmentation affects how much radiation your skin absorbs: The darker the skin, the more it's protected against skin cancer but the less able it is to absorb UV-B rays. It also depends on how much skin is exposed and the time of day. If you're fair skinned and sunning yourself outside in a bathing suit at noon, you only need a few minutes without sunscreen. If you're already tan or of Hispanic origin, you need maybe 15 to 20 minutes. Black skin may require six times the sun exposure to make the same vitamin D levels as a very fair-skinned person, but we need more research on this because the studies that have suggested this have been small. We're starting a study later this year to establish how much skin pigmentation, clothing, sunscreen, and seasonal change affect vitamin D levels, so we should know more about all of this in the near future.

Can I make vitamin D driving in my car on a bright, sunny day on my way to work?

No. For one thing, UV radiation doesn't penetrate glass; that's why you can't get a burn or tan if you're driving with your windows closed. (The heat you feel is infrared radiation from the sun, which doesn't have any health impact beyond making you overheated or causing sunstroke if you get an excessive amount.) Even if you're driving in a convertible, though, you probably won't get a good dose of UV-B rays if you're driving in the early morning when the sun is still low in the sky. Talking a stroll during lunchtime is your best bet.

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