

Taking Vitamin D Daily May Reduce Cancer Mortality by 12%

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✓ Fact Checked

June 16, 2023

STORY AT-A-GLANCE

- › A 2023 systematic review and meta-analysis found daily vitamin D supplementation reduced cancer mortality by a significant 12%
- › Daily vitamin D supplementation was particularly beneficial for people aged 70 and over, as well as those who took vitamin D daily and were later diagnosed with cancer
- › Among people who took daily vitamin D doses of 5,000 IU to 50,000 IU daily, no adverse effects were found
- › Past research has found women with a vitamin D level at or above 60 ng/mL (150 nmol/L) had an 82% lower risk of breast cancer compared to those with levels below 20 ng/mL
- › To optimize your vitamin D levels, regular sun exposure is the best option; however, if you're unable to get adequate sun exposure each day, supplementation may be necessary

On a typical sunny day, your body may produce up to 25,000 international units (IU) of vitamin D.¹ Yet, in the U.S., the average daily recommended intake is only 600 IU for people between the ages of 1 and 70, and 800 IU for those over 70.²

These amounts are likely far too low for most people to optimize their vitamin D levels and take advantage of all the related health benefits — like a reduced risk of dying from cancer.³ The fact is, adequate daily sun exposure over a large portion of your skin is the best way to increase and maintain your vitamin D levels.

But many people either don't get outdoors enough to achieve this, or live in areas where it's too cold to comfortably do so for much of the year. While you should strive to get sensible sun exposure as much as possible, since it offers important benefits beyond vitamin D, research also shows that daily vitamin D supplementation is safe⁴ and significantly advantageous for your health.

Daily Vitamin D Lowers Cancer Mortality by 12%

Cancer is the second leading cause of death in the U.S., after heart disease.⁵ Yet, despite the fact that so many people are dying of this condition — and vitamin D could help — health officials rarely recommend vitamin D for cancer prevention or treatment.

A 2023 systematic review and meta-analysis published in *Ageing Research Reviews* found vitamin D3 supplementation reduced cancer mortality by 6%. This wasn't considered statistically significant, but when only studies involving daily vitamin D intake were analyzed, cancer mortality dropped by a significant 12%.⁶ According to the researchers:⁷

“From a biological perspective, it is plausible that a sufficient vitamin D status has an impact on cancer prognosis: by binding to the vitamin D receptor (VDR), the active hormone 1,25-dihydroxyvitamin D (1,25(OH)₂D) influences signaling pathways that regulate cell proliferation, differentiation, and cell survival, and thus acts as an anti-proliferative agent in many tissues and can slow the growth of malignant cells.”

Meanwhile, risks of lung cancer, colorectal cancer, breast cancer, bladder cancer and lymphoma are higher in people with low vitamin D levels, while having higher levels is associated with a better prognosis in cases of breast and colorectal cancers.⁸

The *Ageing Research Reviews* study further revealed that daily vitamin D supplementation was particularly beneficial for people aged 70 and over, as well as those who took vitamin D daily and were later diagnosed with cancer. Study author Ben Schöttker, Ph.D., with the German Cancer Research Center in Heidelberg, explained:⁹

“This does imply that basically everyone aged 50 and older, including people who have never had cancer, might profit from vitamin D supplementation if they are vitamin D insufficient ... Doctors cannot know who might develop cancer at a later time.

However, in Germany, the risk [of developing] cancer once in life is very high – 43% for women and 51% for men – and thus, the chance to treat someone who might profit from that in the future is quite high ... the lifetime risk to develop cancer is comparable in most other industrialized countries.”

Many Studies Show Vitamin D Lowers Risk of Cancer Death

Other research also supports vitamin D’s role in protecting against cancer death. In one study of 25,871 patients, vitamin D supplementation was found to reduce the risk for metastatic cancer and death by 17%. The risk was reduced by as much as 38% among those who also maintained a healthy weight.^{10,11}

What’s particularly noteworthy is this study only gave participants 2,000 IU of vitamin D daily and didn’t measure their blood levels. Despite these research flaws, a significant benefit was still found. However, other research has found even more striking benefits.

Take, for example, a GrassrootsHealth analysis published in June 2018 in PLOS ONE. It showed women with a vitamin D level at or above 60 ng/mL (150 nmol/L) had an 82% lower risk of breast cancer compared to those with levels below 20 ng/mL (50 nmol/L).¹²

An earlier U.K. study found that having a vitamin D level above 60 ng/mL resulted in an 83% lower breast cancer risk,^{13,14} which is nearly identical to GrassrootsHealth’s 2018 analysis. Another meta-analysis looking at breast cancer reviewed 70 observational studies, finding that for each 2 ng/mL (5 nmol/L) increase in vitamin D level there was a corresponding 6% decrease in breast cancer incidence.¹⁵

Overall, this translates into a 71% reduced risk when you increase your vitamin D level from 20 ng/mL to 60 ng/mL (50 to 150 nmol/L).¹⁶ Similarly, a Canadian study showed

that women who reported having the most sun exposure from ages 10 to 19 had a significantly reduced risk of developing breast cancer.¹⁷

Did High-Dose Vitamin D Cure Pancreatic Cancer?

Vitamin D may even help in cases of pancreatic cancer, one of the deadliest forms of cancer with a five-year survival rate of just 7.2%.¹⁸ Researchers published the case of an 83-year-old woman with pancreatic cancer “who errantly took supratherapeutic doses of vitamin D 50,000 U daily, achieving a serum 25(OH)D level of more than 150 ng/mL, with no appreciable side effects.”

Personally, I strongly disagree with high dose therapy as it is unnecessary and non-biological and if you are supplementing I would recommend taking it once a day.

Eight months after diagnosis – and consistent daily intake of high-dose vitamin D – scans revealed “no evidence of disease progression.” Further, the researchers noted, “Currently she describes as feeling quite well with no difficulty accomplishing her activities of daily living.” They called for further research to investigate:¹⁹

“One cannot conclude that her vitamin D dose was in any way related to this outcome. There is only one CT scan before the initiation of vitamin D, and there is no way to know what her pace of disease would have been in the absence of vitamin D supplementation. In addition, she was taking several other supplements such as shitake mushrooms, although inconsistently and for a shorter duration, which were also intended to treat her malignancy.

Nonetheless, given the poor prognosis of pancreatic cancer and the limited treatment options for patients, this case should stimulate further investigation. The daily dose of 50,000 U of vitamin D3 was well tolerated in our patient for over 10 months at the time of writing. Consideration should be given to a clinical trial that evaluates a similar dose.”

High-Dose Vitamin D Deemed ‘Safe,’ Beneficial

There's a lot of controversy over taking higher doses of vitamin D, in part because excessive vitamin D, particularly in combination with lack of vitamin K2 and magnesium, may cause overabsorption of calcium, which in turn may result in calcium deposits in your heart and kidneys.

A team of researchers conducted routine vitamin D screenings on more than 4,700 hospital patients upon admission.²⁰ Most were then given vitamin D supplements in the amount of 5,000 or 10,000 IUs a day to correct deficiencies. In some cases, patients took 20,000 to 50,000 IUs daily to target certain diseases.

"Deficiency is strongly linked to increased risk for a multitude of diseases, several of which have historically been shown to improve dramatically with either adequate UVB exposure to the skin, or to oral or topical supplementation with vitamin D. These diseases include asthma, psoriasis, rheumatoid arthritis, rickets and tuberculosis," the researchers explained.

While three patients with psoriasis had "marked clinical improvement" upon taking higher vitamin D doses daily, none of the patients experienced hypercalcemia due to vitamin D – nor did they experience any other adverse event from vitamin D supplementation.

In the video above, John Campbell, a retired nurse educator based in England, details the study, noting, "There's no question at all in my mind that authorities around the world ... should increase the recommended amount of vitamin D. The current recommended amounts ... are way too low."²¹

There's a Good Chance You're Vitamin-D Deficient

The global prevalence of vitamin D deficiency (defined as a level of less than 20 ng/mL) and insufficiency (defined as a level of 20 to less than 30 ng/mL) is 40% to 100%.²²

Further, 20 ng/mL has repeatedly been shown to be grossly insufficient for good health and disease prevention and, to maintain your health, your level **should be between 60**

ng/mL (150 nmol/L) and 80 ng/ml (200 nmol/l). A level of 100 ng/mL (250 nmol/l) appears safe and beneficial for certain conditions, especially cancer.

Research has shown that once you reach a minimum serum vitamin D level of 40 ng/mL, your risk for cancer diminishes by 67%, compared to having a level of 20 ng/mL or less.²³

Among older adults in the U.S., vitamin D deficiency may affect up to 100% of the population,²⁴ not only because they tend to spend a lot of time indoors but also because they produce less vitamin D in response to sun exposure than a younger person with the same sun exposure.

The Best Way to Raise Your Vitamin D Level

The best way to get your vitamin D is from sun exposure. While many are unable to do this, it is possible. As I am writing this at the end of May, my vitamin D level was 99 with no supplementation. When you aren't taking a vitamin D supplement, your D level is a strong marker for sun exposure and confirmation you are getting enough near infrared (IR) in addition to UVB radiation.

There's a good reason to ensure your vitamin D levels are within the optimal range. Aside from combating cancer, giving vitamin D to people with COVID-19 cut risk of death from SARS-CoV-2 by 51% and reduced risk of admission to the intensive care unit by 72%.²⁵

I launched an information campaign to raise awareness about the use of vitamin D for COVID-19 back in June 2020 and published [my own vitamin D review](#) October 31, 2020, in the peer-reviewed journal *Nutrients*.²⁶ It shows that 14 observational studies suggest vitamin D levels are inversely linked with the incidence or severity of COVID-19 and recommends vitamin D supplements for prevention or treatment.²⁷

To optimize your vitamin D levels, regular sun exposure is the best option, as not only will it naturally raise your vitamin D levels, but it will provide numerous other benefits, such as enhanced production of melatonin – another potent anticancer agent.²⁸

However, if you're unable to get adequate sun exposure each day, supplementation may be necessary.

To determine how much sun exposure is enough and/or how much vitamin D3 you need to take, you'll need to measure your vitamin D level, ideally twice a year. When supplementing, also remember vitamins D and K2, calcium and magnesium all work together and must be properly balanced for optimal health.

Sources and References

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