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Want to live longer? Try Vitamin D

Posted by: [Dr. Mercola](#)

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Writing in the journal *Clinical Endocrinology*, scientists from the Netherlands, Austria, and the U.S. report that low blood levels of the sunshine vitamin are associated with increased risk of all-cause mortality, and mortality from heart disease, in the elderly.

The research follows hot on the heels of similar findings published in *Nutrition Research* and in the *Archives of Internal Medicine*.

The new study used data from 614 people participating in the Hoorn Study, a prospective population-based study with men and women with an average age of 69.8. Blood levels of 25(OH)D were measured at the start of the study. After an average of six years of follow-up, 51 deaths had been documented, 20 of which were due to cardiovascular health.

People with the lowest average vitamin D levels were found to be at a 124 and 378 percent increased risk of all-cause mortality and cardiovascular mortality, respectively.

Commenting on the potential mechanism, the researchers note:

"Apart from the maintenance of muscular and skeletal health, vitamin D may also protect against cancer, infections, autoimmune and vascular diseases, suggesting that vitamin D deficiency might contribute to a reduced life expectancy."

Adults with lower blood levels of vitamin D may also be more likely to die from heart disease or stroke. Scientists in Finland compared blood levels of vitamin D, and deaths from heart disease or stroke over



time in more than 6,000 people. Those with the lowest vitamin D levels had a 25 percent higher risk of dying from heart disease or stroke.

In addition, in a study of 166 women undergoing treatment for breast cancer, nearly 70 percent had low levels of vitamin D in their blood, according to a study presented at the American Society of Clinical Oncology's Breast Cancer Symposium. The analysis showed women with late-stage disease and non-Caucasian women had even lower levels.

Said Luke Peppone, Ph.D., research assistant professor of Radiation Oncology, at Rochester's James P. Wilmot Cancer Center:

"Vitamin D is essential to maintaining bone health and women with breast cancer have accelerated bone loss due to the nature of hormone therapy and chemotherapy. It's important for women and their doctors to work together to boost their vitamin D intake."

Sources:

- » [NUTRAIngredients.com November 3, 2009](#)
- » [Reuters October 29, 2009](#)
- » [University Rochester Medical Center October 9, 2009](#)
- » [Clinical Endocrinology November 2009, Volume 71, Issue 5, Pages: 666-672](#)
- » [American Society of Clinical Oncology's Breast Cancer Symposium, San Francisco, CA October 8, 2009](#)

Dr. Mercola's Comments:



Dr. Joseph Mercola
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Vitamin D is not "just a vitamin" that is necessary for strong bones. Rather, vitamin D is the only known substrate for a potent, pleiotropic (meaning it produces multiple effects), repair and maintenance seco-steroid hormone that serves multiple gene-regulatory functions in your body.

Each cell in your body has its own DNA library that contains information needed to deal with virtually every kind of stimulus it may encounter, and the master key to enter this library is *activated vitamin D*.

This is why vitamin D functions in so many different tissues, and affects such a large number of different diseases and health conditions. So far, scientists have found about 3,000 genes that are upregulated by vitamin D.

Receptors that respond to the vitamin have been found in almost every type of human cell, from your brain to your bones. And researchers keep finding health benefits from vitamin D in virtually every area they look.

In this latest study, researchers found that people with the lowest average vitamin D levels had a 124 percent greater risk of dying from all causes and a 378 percent greater risk of dying from a heart problem!

Those are massively increased risks -- risks that could have been avoided simply by optimizing vitamin D.

Vitamin D is Essential for a Healthy Heart

This is far from the first study to show an increase in heart risks from low vitamin D levels.

Researchers from Finland also showed that when compared with the participants with the highest vitamin D, those with the lowest levels had a 25 percent higher risk of dying from heart disease or stroke. And when only stroke was looked at, those with the lowest levels had twice the risk as those with the highest.

A previous study even found women who take vitamin D supplements lower their risk of death from heart disease by one-third.

It's also been suggested that the more sunlight you get, the better your cardiovascular health will be, as there are a number of physiological mechanisms triggered by vitamin D production through sunlight exposure that act to fight heart disease, such as:

- An increase in your body's natural anti-inflammatory cytokines
- The suppression of vascular calcification
- The inhibition of vascular smooth muscle growth

Heart disease is one of the leading killers in the United States, so making sure you're getting enough vitamin D is a step nearly everyone should be taking.

Vitamin D May Help Prevent Breast Cancer

Vitamin D is not only important for your heart; it can also help prevent cancer. Calcitriol, the active form of vitamin D, can induce a tumor-suppressing protein that can inhibit the growth of breast cancer cells.

Not surprisingly, it's been recently found that most women with breast cancer have low levels of vitamin D. In fact, in a study of 166 women undergoing treatment for breast cancer, nearly 70 percent had low vitamin D!

In another study investigating vitamin D's impact on breast cancer, it was found that light-skinned women who had high amounts of long-term sun exposure had half the risk of developing advanced breast cancer (cancer that spreads beyond your breast) as women with lower amounts of regular sun exposure.

Vitamin D has a protective effect against at least 16 different types of cancer, and offers a benefit in several ways, including:

- Increasing the self-destruction of mutated cells (which, if allowed to replicate, could

lead to cancer)

- Reducing the spread and reproduction of cancer cells
- Causing cells to become differentiated (cancer cells often lack differentiation)
- Reducing the growth of new blood vessels from pre-existing ones, which is a step in the transition of dormant tumors turning cancerous

In fact, some of the top vitamin D experts in the world believe optimizing your vitamin D levels by getting proper sun exposure is the next largest variable after smoking that can influence whether or not you'll get cancer.

How Much Vitamin D Do You Need for Optimal Health?

It is estimated that 25 to 50 percent of any health care budget could be saved with adequate vitamin D serum levels, so this is one simple step that can make a major difference for you and your family.

So how much do you need?

Well, current RDA's for vitamin D are outdated and far too low to offer optimal benefits. Based on the most recent research, the current recommendation is 35 IU's of vitamin D per pound of body weight.

So for a child weighing 40 pounds, the recommended average dose would be 1,400 IU's daily, and for a 170-pound adult, the dose would be nearly 6,000 IU's.

However, it's important to realize that vitamin D requirements are highly individual, as your vitamin D status is dependent on numerous factors, such as the color of your skin, your location, and how much sunshine you're exposed to on a regular basis.

So, although these recommendations may put you closer to the ballpark of what most people likely need, it is simply impossible to make a blanket recommendation that will cover everyone's needs.

You'll Need a Blood Test to Determine How Much Vitamin D You Need

Since there are so many variables that influence your vitamin D status, the only way to determine the correct dose is to get your blood tested.

I recommend using Lab Corp in the U.S. If you get it done by Quest, you'll need to divide your result by 1.3 to get the "real" number.

For your convenience, by year's end we hope to offer a blood test that those in the U.S. can do locally and does not require a doctor's order.

The correct test your doctor needs to order is 25(OH)D, also called 25-hydroxyvitamin D, which is the better marker of overall D status. This is the marker that is most strongly associated with overall health.

However, please realize that the "normal" 25-hydroxyvitamin D lab range is between 20-56

ng/ml. As you can see in the chart below, this conventional range is really a sign of deficiency, and is too broad to be ideal.

In fact, your vitamin D level should never be below 32 ng/ml, and any levels below 20 ng/ml are considered serious deficiency states, increasing your risk of as many as 16 different cancers and autoimmune diseases like multiple sclerosis and rheumatoid arthritis, just to name a few.

Vitamin D Levels 25 Hydroxy D

Deficient	Optimal	Cancer	Excess
<50 ng/ml	50-65 ng/ml	65-90 ng/ml	>100 ng/ml

The OPTIMAL value that you're looking for is 50-65 ng/ml.

This range applies for everyone; children, adolescents, adults and seniors, and are based on healthy people in tropical or subtropical parts of the world, where they are receiving healthy sun exposures. It seems more than reasonable to assume that these values are in fact reflective of an optimal human requirement.

The Best Way to Optimize Your Vitamin D Levels

The best way to optimize your vitamin D levels is through appropriate safe sunshine or safe tanning bed exposure.

Under summer sun conditions it is frequently possible to generate about 20,000 units of vitamin D by exposing your skin to the sun. You will not overdose this way, as when you're exposed to the sun, the UVB rays cause vitamin D to be produced in your skin while the UVA rays in the sunlight will tend to destroy excessive levels of vitamin D circulating in your body . It is somewhat of a natural fail-safe mechanism that prevents overdosing.

However, there are many times when it can be nearly impossible to get enough sun.

In these cases, supplementing with vitamin D is acceptable, but I strongly recommend you monitor your blood levels regularly when taking oral vitamin D supplements to make sure you're staying within the optimal range.

Also, be sure to choose the right form of vitamin D supplement. The one you want is the natural vitamin D3 (cholecalciferol), which is the same vitamin D your body makes when exposed to sunshine.

Related Links:

- » [Vitamin D is a Key Player in Your Overall Health](#)
- » [Vitamin D -- The Master Key to Optimal Health](#)
- » [How Much Vitamin D Do You Really Need to Take?](#)



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