

## How Much Vitamin D Do You Really Need to Take?

Posted by: [Dr. Mercola](#)

October 10 2009 | 150,628 views

On November 3 at the University of Toronto, Ontario, Canada, noted doctors Cedric Garland and Tracey O'Connor are running a seminar on how vitamin D can be used to prevent breast cancer -- as well as infectious diseases, type 1 diabetes, hypertension, colon cancer, and falls in the elderly.

Presenters will include some of the best known vitamin D researchers/practitioners, such as Robert P. Heaney, Reinhold Vieth, John White and Susan Whiting.

It is estimated that 25 to 50 percent of any healthcare budget could be saved with adequate vitamin D serum levels.

The conference will look at the current research and practice with vitamin D to enable everyone to take action today based on what's known to solve the deficiency epidemic, and to start the prevention of many diseases.

Sources: » [Grass Roots Health](#)

Dr. Mercola's Comments:

As more and more scientific evidence emerges, confirming that currently recommended daily allowances (RDA) of vitamin D are grossly insufficient for young and old alike, many have asked me to clarify the recommended dosages, especially as it pertains to children.

### General Information about Adult Vitamin D Requirements

Before I begin, I want to emphasize that under summer conditions it is frequently possible to generate about 20,000 units of vitamin D by exposing your skin to the sun. That fact makes these recommendations seem more in line with reality.

Currently, the U.S. RDA for vitamin D is 400 IU (international units) for the majority of the population. (IU is frequently shortened to just "units.") This dose was recommended to prevent rickets, which works well, but does nothing to give the far more important protection from cancer, heart disease and infections.

To achieve the healthy blood levels in the graph below, most adults will need about FIVE THOUSAND units of vitamin D every day. Interestingly, the majority of people I see in my travels that are taking vitamin D are taking 1,000 units, and they believe they are taking "high" doses. Don't fool yourself, as an adult, you likely need about 5,000 IU's a day.

Some also worry that if they are in the sun that they will overdose on vitamin D.

However this is not typically the case, and here's why: 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 failsafe mechanism that prevents overdosing.

HOWEVER, please understand that about 10 percent or more of the people reading this needs significantly more than 5,000 units. I have seen people requiring over 30,000 units of vitamin D a day to reach therapeutic levels of 25 hydroxy D in their blood..

Please remember that the ONLY way to know for sure is to get your blood level tested, which I'll go over in just a moment.

## Current RDA Guidelines for Vitamin D are Outdated in Light of New Research

At the end of 2008, the [American Academy of Pediatrics doubled its recommended dose of vitamin D](#) for infants, children and adolescents, raising it from 200 to 400 units per day.

Unfortunately this is still a woefully inadequate recommendation for children.

[Recent research](#) reveals children may need *ten times* that amount in order to receive the [health benefits that optimal vitamin D levels have to offer](#).

As of right now, the conventional RDAs are only:

- 400 IU for infants, children and adolescents
- 200 IU for adults up to age 50
- 400 IU for adults aged 51 to 70
- 600 IU for seniors over 70

## Recommended Daily Intake for Optimal Health

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.

So how do you ensure optimal vitamin D levels for yourself, your child, and aging parents?

## Blood Testing is the ONLY Reliable Way to Determine How Much Vitamin D You or Your Child Needs

Yes, the only way to determine the correct dose is to [get your blood tested](#) since there are so many variables that influence your vitamin D status.

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.

### Step 1: Make Sure You Use the Correct Test

Getting the correct test is the first step in this process, as [there are TWO vitamin D tests](#) currently being offered: 1,25(OH)D, and 25(OH)D.

**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.

### Step 2: Determine Your OPTIMAL Level of Vitamin D

Here again it's important to realize the difference between what conventional medicine considers to be "normal," versus what is optimal.

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.

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

**This range applies for everyone; children, adolescents, adults and seniors.**

These ranges 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.

It’s worth to clarify here that ng/ml are U.S. units of measure. Much of the world uses nmol/l. If your test results are measured in nmol/l, simply multiply the above values by 2.5 to get the correct ranges.

## Vitamin D Levels 25 Hydroxy D

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

Keeping your level in this range, and even erring toward the [higher numbers in this range, is going to give you the most protective benefit](#). And the way you maintain your levels within this range is by getting tested regularly – say two to four times a year in the beginning, and adjusting your vitamin D intake accordingly.

### Are Oral Vitamin D Supplements Your Best Choice?

The best way to optimize your vitamin D levels is through [appropriate safe sunshine or safe tanning bed exposure](#). However, there are many times when it can be nearly impossible to get enough sun.

The darker your skin is, the farther away from the equator you are, and the further away you are from the summer months, the less likely it is that you will produce adequate vitamin D levels from sun exposure alone.

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

### Only Supplement with the Right Kind of Vitamin D

There is one other thing you need to be aware of if you choose to use an oral vitamin D supplement and that is that there are basically two types – one is natural and one is synthetic.

- The natural one is D3 (cholecalciferol), which is the same vitamin D your body makes when exposed to sunshine
- The synthetic one is vitamin D2, which is sometimes called ergocalciferol

Once either form of the vitamin is in your body, it must be converted to a more active form. Vitamin D3 is converted 500 percent faster than vitamin D2, and is clearly a better alternative.

Vitamin D2 also has a shorter shelf life, and its metabolites bind with protein poorly, making it less effective. Studies have even concluded that [vitamin D2 should no longer be regarded as a nutrient appropriate for supplementation](#) or fortification of foods (although it continues to be used). So if you choose to use vitamin D supplements make sure it is in the form of vitamin D3.

Please be aware that nearly all the prescription-based supplements contain synthetic vitamin D2, so if you receive a prescription for vitamin D from your doctor, you're most likely receiving the inferior vitamin D2.

### **Getting the Word Out about the Benefits of Optimizing Vitamin D Levels**

When it comes to the benefits of optimizing your vitamin D levels, the evidence is simply overwhelming. Research shows you can drastically reduce your risk of cancer and countless other chronic diseases by getting safe sun exposure, using a safe tanning bed, or taking a high-quality supplement.

Yet, a great deal of people around the world have heard nothing of this great "discovery." It's even likely that your doctor is among them, which is why it's so important to educate yourself.

As a result of flawed assumptions about sun exposure, and the subsequent recommendations, a vast majority of people are deficient in vitamin D. It's thought that over 95 percent of U.S. senior citizens may be deficient, along with 85 percent of the American public.

Clearly, the word needs to get out but the mainstream media is slow to react. Plus, there's no money to be made on selling vitamin D (it's one of the most inexpensive supplements around) and sun exposure is free! So don't count on any major corporations or drug companies to help get the message out (rather, count on them to try and suppress this lifesaving information).

The longer this information goes largely unnoticed, the more people who will die unnecessarily from potentially preventable cancers and other diseases.

Fortunately, GrassrootsHealth D\*action is on a mission to get the word out and solve the vitamin D deficiency epidemic ... in just one year's time.

### **The D\*Action Project: How YOU Can Make a Difference**

GrassrootsHealth has launched a worldwide public health campaign to solve the vitamin D deficiency epidemic in a year through a focus on testing and education with all individuals spreading the word.

And you are all invited to join in this campaign!

With Dr. Garland at the helm, The D\*Action Project will be monitoring, for five years, the health outcomes of individuals who get their vitamin D levels to the levels of 40-60 ng/ml. I would highly recommend that you optimize your levels to the high end of this spectrum, as optimal vitamin D levels are 50-65 ng/ml, or 65-90 ng/ml if you are treating cancer.

Says Carole Baggerly, director of GrassrootsHealth:

*"We will be tracking the incidence of many diseases, from cancer to diabetes and muscular function as well as pain levels to see what effect the higher vitamin D levels may have.*

*We expect to see a significant reduction in the incidence of breast cancer (and its recurrence), colon cancer, diabetes and myocardial infarction, compared with the general population. With the expansion of the project by individuals, we could substantially reduce this epidemic in a few years!"*

So how can you get involved? [Join the D\\*action Project!](#)

Simply complete a health questionnaire and test your vitamin D levels two times per year during the 5-year program to help demonstrate the public health impact of this nutrient.

GrassrootsHealth is sponsoring the use of blood spot test kits (laboratory analysis done by ZRT Labs) for a \$40 fee to each individual. The tests are to be done twice a year by each individual along with the submission of some basic health data. The fee includes:

- A vitamin D blood spot test kit to be used at home (except in the state of New York)
- The results are sent directly to you

You will be asked to take a quick health survey and also to take action to adjust your vitamin D levels to get into the desired ranges, ideally in consultation with a knowledgeable health care professional.

If you are a physician, medical institution or other health group, please also get involved by contacting Baggerly directly at: [carole@grassrootshealth.org](mailto:carole@grassrootshealth.org). Baggerly was also instrumental in getting [Canada to investigate the use of vitamin D against the swine flu](#).

The information you provide in the health survey will then be used in a five-year study to evaluate the results of the program in disease prevention, and to help create a long-term plan for public health.

This project depends on a true 'grassroots' health movement. Together we can stop the vitamin D deficiency epidemic in its tracks and improve the health of millions of people.

With only 100 of you joining today, and getting two friends to join in two weeks (and those two friends getting two more), by week 42 there could be 400,000,000 people who are vitamin D 'replete' (more than the United States population)!

To find out more about vitamin D, please watch my [one-hour, free vitamin D lecture](#).

Then, do your part to end vitamin D deficiency and improve your own health by [joining the D\\*Action Project](#), and encouraging your friends and family to do the same!