



# Healthy for Life Newsletter

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**Vitamin D - the Truly Essential Nutrient**

The thinking about the actions and properties of vitamin D has changed dramatically over the past 10 years. Vitamin D has always been considered primarily necessary for the absorption of calcium and has always been an important player for preventing osteoporosis. However, research in recent years has actually shown that the active form of vitamin D is also very important in the function of our immune system and any deficiency in this important nutrient is now believed to have a strong influence in the development of several diseases like cancer, diabetes, and heart disease. Vitamin D is a nutrient that acts as a hormone precursor, and there are several vitamin D receptors in several cell types and tissues of the body. This has led researchers to take a long hard look at the level of vitamin D that is required in the body to support all of these natural functions.

### **RDA versus Advanced or Optimal Levels**

In all of my books, I have continued to explain the difference between RDA levels and what is considered to be optimal levels of nutrients. Vitamin D is an excellent nutrient that illustrates this point very well. It has always been thought that the level of vitamin D that was needed was what is referred to as 25 nmol/L [10 ng/ml] or greater to prevent rickets in children or thinning of our bones in adults. In order to achieve this level of vitamin D in our bodies, we believed that all we needed was adequate sunlight exposure because vitamin D is created when sunlight hits our skin. This view led to the recommendation that we only needed to supplement our diet with 200 IU of vitamin D.

A major review article came out in the New England Journal of Medicine in the July 19, 2007 issue. The researchers pointed out that studies showed that 40% of our children and nearly 100% of our elderly in the US and Europe were deficient in vitamin D. They also pointed out that supplementing 400 IU of vitamin D not only did not show any health benefits, but also was not enough to replenish any vitamin D deficiency. Much higher doses were needed to obtain those optimal levels of vitamin D, which were now felt to be 75 nmol/L or 30 ng/ml. Optimal levels (not RDA levels) of vitamin D were now considered to be between 75 and 125 nmol/L, or 30 and 50 ng/ml. When these levels were achieved via supplementation, researchers discovered some startling health benefits:

- 78% reduction in Type 1 diabetes in children taking 2,000 IU of vitamin D in the first year of life.
- 200% increase in Type 1 diabetes in vitamin D-deficient children
- 33% reduction in Type 2 diabetes in those taking 800 IU/day of vitamin D plus calcium.
- 72% reduction in number of falls in elderly people taking higher-dose vitamin D.
- 30 to 50% more cancers in those individuals who had vitamin D deficiencies.
- 42% reduction in multiple sclerosis in women taking more than 400 IU of vitamin D daily in supplementation.

These researchers concluded that the supplementation level of vitamin D recommended (200 to 400 IU) by the medical community was seriously outdated and inadequate. This demonstrates very vividly the difference between

RDA levels and advanced or optimal levels. I define optimal levels of supplementation as those levels of supplementation that have been shown to provide a health benefit in our medical literature. This is even more evident when you look at a recent study that was released in the June 7, 2007 issue of the American Journal of Clinical Nutrition.

### **Vitamin D and Calcium Supplementation Reduces Cancer Risk**

This study was a 4 year, double-blind, placebo-controlled trial that involved nearly 1200 women. This is the kind of study physicians love and always talk about when it comes to pharmaceutical trials. However, very few of them realize that these kinds of studies regarding the health benefits of taking supplements exist. Subjects were assigned to take 1400 mg of calcium alone, or 1400 mg of calcium plus 1100 IU of vitamin D, or a placebo. After only 4 years, the risk of developing any type of cancer was 60% lower in the vitamin D group. If you excluded the cancers diagnosed in the first year because these cancers were most likely already present before the study, there was a 77% reduction in all types of cancer in the vitamin D group.

The researchers pointed out that vitamin D has an effect on at least 200 human genes and is critical in the normal functioning of our immune system and cell division. When there is less than an optimal level of vitamin D, the regulatory process involving cell proliferation and differentiation becomes defective. This can lead to abnormal cell division and thus cancer growth. However, if individuals simply supplement their diet with 1100 IU of vitamin D, they can significantly decrease their risk of all cancers.

### **Vitamin D Prevents and Improves Several Diseases**

Vitamin D has been shown to suppress inflammation in diseases like rheumatoid arthritis, congestive heart failure, and even stroke. As noted above, there is a decrease in the risk of

both type 1 and 2 diabetes in individuals who supplement with vitamin D. There are far fewer falls in elderly patients who supplement with vitamin D at this optimal level. Another important aspect is the fact that vitamin D is required for proper immune function. It is also known that those individuals who live in higher latitudes contract multiple sclerosis at far higher rates than those who obtain more sunshine throughout the year. Studies have shown that supplementing with even 400 IU of vitamin D significantly reduces the risk of developing multiple sclerosis.

### **Concept of Cellular Nutrition**

Anyone who has ever read any of my books or been a member of my online medical practice for any length of time realizes that I firmly believe in the concept of cellular nutrition. This is defined as providing all of these nutrients at optimal or advanced levels or those levels that have been shown to provide a health benefit in our medical literature. This certainly holds true for vitamin D supplementation. Yes, you want to be supplementing a minimum of 1,000 IU vitamin D (preferably vitamin D3) along with all the other nutrients. You will not get this amount in a one-a-day vitamin or with most nutritional supplement products. Therefore, you need to check the amount of vitamin D in your supplements. You will get some vitamin D in your antioxidant tablet and possibly in your calcium/magnesium tablet. Some companies are now adding additional vitamin D in their fish oil capsules because they realize the importance of providing these optimal levels of supplementation.

It is a good idea to be getting safe exposure to sunlight whenever possible. You will get the maximum amount of vitamin D production for sun exposure within the first 15 to 20 minutes. You don't have to be a "sun goddess" to get this additional vitamin D from sunlight. However, we also don't want to have a fear of getting any sunlight exposure because it is so important to our health. Common sense is the key and protecting your face during this sunlight exposure is also a good idea.

## **Blood Tests for 25-Hydroxyvitamin D**

Now that we are realizing the importance of optimal levels of vitamin D in our body, we may want to check what our levels actually are. There is a blood test that your doctor can order to find out your vitamin D blood level. Even if you live in sunny Southern California, you may be deficient in vitamin D. It is called 25-Hydroxyvitamin D blood levels and can be ordered through almost any lab. You want to do this blood test in the winter months because this is the time the levels will be the lowest. You want to have a 25-Hydroxyvitamin D level of greater than 30 ng/ml. It is nice to see this level even as high as 50. If you are lower than 30 ng/ml, your health is at risk, and you may need to supplement with even higher doses of vitamin D to get this to the optimal range. Some people may need to supplement as high as 2,000 to 3,000 IU of vitamin D to achieve this goal. Once you have reached this optimal level of vitamin D, you should be able to back off to the recommended minimum of 1,000 IU daily.

## **Safety of Supplementing Higher Doses of Vitamin D**

The very important point of safety in taking these higher doses of vitamin D also needs to be discussed. We used to be concerned if individuals were supplementing over 2,000 IU of vitamin D. However, recent studies show that taking up to 10,000 IU of vitamin D is safe. I certainly would not recommend taking more than 2,000 IU of vitamin D unless you have done a blood test and know that you are deficient in vitamin D. Your doctor may actually use very high doses of vitamin D to bring you to the optimal levels; however, this should only be done under your doctor's direction.

## **Conclusion**

Clinical research of vitamin D has now reached a point that we can predictably state that several hundred thousand American lives could be saved each year if people supplemented their diets with 1,000 IU of vitamin D. Studies show that you can

reduce the incidence of breast, prostate, and colon cancer by 50% by taking this level of vitamin D. Overall cancer rates can drop as much as 77%. This is what nutritional medicine is all about. It emphasizes the true health benefits of supplementing a healthy diet with these optimal or advanced levels of nutrients—not RDA levels. Begin taking at least 1,000 IU of vitamin D today. Your body will love you for it.