



The Sunshine Chiropractic Clinic - www.sunshinehealthclinic.com

Vitamin D—Why YOU Need It!

When I was studying to be a chiropractor in the late 1960's, Vitamin D was the cure for a bone disease called Rickets in children and Osteomalacia in adults. In children, the bones of the legs were weakened, because of a lack of calcium and phosphorus resulting in bowed legs. These diseases were the result of insufficient amounts of Vitamin D. In the 1930's, milk was fortified with Vitamin D (400 IU or International Units) per quart and this addition prevented Rickets. As a result of this addition of Vitamin D, it was felt that 400 IU was all that was needed. It is now known that much more Vitamin D is necessary, not only for bone health, but for many other conditions.

What Is Vitamin D?

Vitamin D is one of the fat soluble vitamins as well as with A, E and K. What this means is that these vitamins do not dissolve in water, but they will dissolve in fat or oils. Vitamin D, in animals, is produced from cholesterol. A form of cholesterol in our skin is stimulated with ultraviolet B light from the sun, thus producing Vitamin D. That is why Vitamin D is called the "Sunshine Vitamin." There are two forms of Vitamin D, Ergocalciferol (D2) and Cholecalciferol (D3). D2 is a plant source of Vitamin D and is not as effective in treating Vitamin D deficiencies. It is used in a prescription form of Vitamin D. Vitamin D3 is the more active form and is the one, in my opinion, you should use.

What does Vitamin D do in our bodies?

- Of the 30,000 genes in our body, Vitamin D is involved in activating 2,700 of them
- Vitamin D improves calcium absorption from the intestine (Without D, calcium absorption is 10—15%. With D, it is 80%). Calcium is important for osteoporosis and many other functions
- Vitamin D stimulates the immune system to make antimicrobial polypeptides which kill bacteria, viruses and fungi, including the flu
- Vitamin D reduces the autoimmune response in Rheumatoid Arthritis, Multiple Sclerosis and Type 1 Diabetes
- Vitamin D is helpful in reducing high blood pressure
- Vitamin D helps to prevent over 16 types of cancers including breast, prostate, colon, skin and lung cancer

What are sources of Vitamin D?

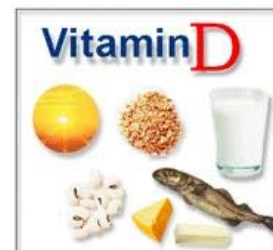
- Sunlight and certain UVB predominant tanning beds
 - ◇ Ultraviolet B (UVB) light is what stimulates Vitamin D production
 - ◇ There is both UVB and UVA in sunlight
 - ◇ UVA is more dangerous and causes sunburn and melanomas (cancer)
 - ◇ Full body exposure for as long as it takes to turn a light pink is sufficient to produce between 10,000 to 20,000 International Units (IU's) of Vitamin D3. Longer exposure will not increase that amount, because the UVB will destroy the excessive amount. No toxicity will develop. God has provided for our safety
 - ◇ There is more penetration of UVB light in the midday between 11:00-2:00 and more in the spring and summer because of the angle of the sun. There is more exposure closer to the equator. The farther north or south from the equator the less UVB penetration
 - ◇ Exposure is decreased by sunscreen, (SPF 15 blocks 99% of the skin's Vitamin D production) cloud cover, smog and skin color. The darker the skin, the less production of Vitamin D and that includes tanning
 - ◇ Age and altitude affect production (less production after 50 years old and the higher the altitude, the more UVB)



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- Food Sources of Vitamin D

- ◇ Fatty fish such as cod, salmon, mackerel and tuna have small amounts (150-700) IU's per 3 oz. portion
- ◇ Milk is fortified with 115-124 IU's per cup
- ◇ Most other foods have less than 100 IU's per portion



- Vitamin D3 supplements

How do we measure how much Vitamin D we have in our body?

- The standard blood test for Vitamin D is 25 hydrox cholecalciferol or 25(OH)D3
- The following are the more accepted standards:
 - ◇ <50 ng/ml is a deficiency
 - ◇ 50-70 ng/ml is optimal
 - ◇ 70-100 ng/ml is for the treatment of heart and autoimmune disease and cancer
 - ◇ >100 ng/ml is excessive

I RECOMMEND EVERYONE SHOULD HAVE THEIR BLOOD LEVELS CHECKED!

How much should be taken?

- This, of course, is primarily determined by how much you are making from sun exposure and the factors described above. However, the following recommendations have been proposed:

◇ Under 1 year of age	1000 IU's per day
◇ Over 1 year of age	1000 IU's per 25 lbs per day
◇ Adolescents and adults	5000 IU's per day
- These estimates are from the Vitamin D Council and John Cannell MD and are based on people who have limited sun exposure. He recommends blood testing after 2-3 months

I personally take 5000 IU's per day, because of limited sun exposure

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