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How to Get Your Daily Dose of Vitamin D

When is a vitamin not really a vitamin? When it's vitamin D! The "sunshine" vitamin, aptly named because sunlight is a source of it, is actually a hormone. Vitamin D is currently receiving a lot of attention and research regarding its role in various diseases. Because it isn't found in many foods, and people tend to slather on sunscreen (which blocks your body's ability to make vitamin D from the sun) or spend most of the day indoors, many are wondering if their intake of vitamin D is sufficient.

The Best Sources of Vitamin D



Why Vitamin D Matters

A report by the Institute of Medicine (IOM) indicates that there is strong scientific evidence showing that vitamin D plays an important role in bone health. Vitamin D then helps to deposit these minerals in your skeleton and teeth, making them stronger and healthier. Therefore, vitamin D helps prevent the fractures associated with osteoporosis, the bone deformation of rickets, and the muscle weakness and bone aches and pains of osteomalacia (the softening of bones).

But a deficiency of vitamin D may go beyond bones—it may be related to a variety of health problems. Because it's a hormone, and your body is full of receptors for this hormone, it may play a role in the prevention of other ailments. After analyzing more than 1,000 studies the IOM believes that there is not substantial evidence to support vitamin D's role in other diseases. But preliminary research indicates the importance of meeting one's basic daily needs for vitamin D is important for overall health and well-being. A lack of vitamin D has been blamed for a plethora of health problems, but more targeted research should continue for diseases such as:

- Cancer. Preliminary research suggests that vitamin D has an anti-cancer benefit. It may stop the growth and progression of cancer cells and be beneficial during cancer treatment, too.
- Hormonal problems. Vitamin D influences the functions of melatonin, serotonin and estrogen—hormones involved with health conditions such as diabetes, blood pressure, heart disease, stroke, depression and premenstrual syndrome.
- Obesity. Some research shows that a vitamin D deficiency can interfere with the "fullness" hormone leptin, which signals the brain that you are full and satisfied.
- Inflammation. Vitamin D may help control the immune system, which is linked with periodontal disease, rheumatoid

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- **Cancer.** Preliminary research suggests that vitamin D has an anti-cancer benefit. It may stop the growth and progression of cancer cells and be beneficial during cancer treatment, too.
- **Hormonal problems.** Vitamin D influences the functions of insulin, rennin, serotonin and estrogen—hormones involved with health conditions such as diabetes, blood pressure, heart disease, stroke, depression and premenstrual syndrome.
- **Obesity.** Some research shows that a vitamin D deficiency can interfere with the "fullness" hormone leptin, which signals the brain that you are full and should stop eating.
- **Inflammation.** Vitamin D may help control the inflammation involved with periodontal disease, rheumatoid arthritis and osteoarthritis.
- **Weakened immune system.** Vitamin D may play a role in a strengthening your immune system, especially in autoimmune disorders (when the body attacks itself) like multiple sclerosis and rheumatoid arthritis.

How much vitamin D do you need?

In the last few years, many experts and health organizations urged the Institute of Medicine to revisit the DRI set for vitamin D and re-evaluate the latest research. After a thorough review, the recommendations for vitamin D did go up by two or threefold in some age groups. The current Recommended Dietary Allowance for vitamin D (as of November 2010) is:

- Ages 1-70: 600 IU (International Units) daily
- Ages 71 and older: 800 IU daily
- Tolerable Upper Intake Level: ages 9 and up: 4000 IU daily

Are you deficient on D?

Because vitamin D is a fat-soluble vitamin, the body can store it for long periods. Tracking your intake from foods or supplements alone won't determine if you're truly deficient in vitamin D. Moreover, even if you appear to get enough vitamin D from foods or supplements, there is no guarantee that your body is absorbing or using all the D that you appear to be consuming. The only way to know your vitamin D status is to ask your health care provider for a vitamin D test. (It is best to have the test preformed about a month before the beginning of winter.) Your doctor will check your blood level of 25-hydroxyvitamin D. A desirable result for this test, according to the IOM is 20-30 ng/mL (nanograms per milliliter).

The ABC's of Getting Your D

Vitamin D is a key nutrient for everyone and there are three ways to obtain it: from the sun, food or supplements. Here's what you need to know about each source.

Sunlight is an excellent source of vitamin D. It is free and abundant. The ultraviolet B (UVB) rays from the sun convert a precursor into vitamin D, which becomes 25-hydroxyvitamin D in the liver and is then activated to 1, 25-hydroxyvitamin D in the kidneys. A person sitting outside in a bathing suit in New York City gets more vitamin D in 20 minutes than from drinking 200 glasses of milk. In fact, many experts suggest getting 10 minutes of unprotected sun on the arms and face or arms and legs, three times weekly and before applying sunscreen. But getting vitamin D from the sun isn't that simple. UVB rays vary greatly depending on latitude, cloud cover, time of year and time of day. Above 42 degrees north latitude, the sun's rays do not provide sufficient D from November through February, for example. Remember too, that UVB rays do not penetrate glass or sunscreen with a sun protection factor (SPF) of 8 or more. The elderly, people who spend all or most of their time indoors, and people with darker skin also produce less vitamin D. Talk to your health care provider about unprotected sun exposure; not everyone in the scientific community thinks that even a little sun is a good idea, because of the risk of skin cancer.

Food can provide vitamin D, but it's difficult to get 600 IU of vitamin D from your diet alone. Only a few foods (fatty fish, liver and egg yolks) contain vitamin D naturally. Other foods, such as milk and cereal, are fortified with vitamin D. While the average person gets less than the required amount of vitamin D through their daily diet, few people are showing a deficiency, according to the most recent studies.

Supplements may be necessary for a few individuals, but check with your doctor first. A multivitamin-mineral supplement typically contains 400 IU of vitamin D. Many supplements contain ergocalciferol, called D2, which is a less potent form of vitamin D derived from the irradiation of yeast; it's also less expensive. You are better off using a supplement that contains cholecalciferol, or D3, made from fish oil, the fat of lamb's wool (lanolin) or the chemical conversion of cholesterol. This form is much better absorbed by the body, but it can be harder to find and more expensive. (Check the supplement label or inquire with supplement manufacturers to find out whether they use D2 or D3 if the label doesn't specify.) Vitamin D is often added to calcium supplements, or you can also buy a vitamin D supplement by itself. Vitamin D is a fat-soluble vitamin, so take your supplement with a meal containing some fat to enhance absorption.

Spark Action!

It is far too early to call vitamin D a wonder drug, but evidence of its importance is mounting. Therefore, you may want to consider this Spark of advice:

- Aim to get 600 IU of vitamin D daily through your diet. You can track your intake on SparkPeople's Nutrition Tracker to see how well you are doing.
- Talk to your health care provider about the need for a vitamin D test, and discuss your test results.
- Talk to your health care provider about careful sun exposure—10 minutes on the arms, face, and/or legs, three times weekly—before you slather on the sunscreen.
- Talk to your health care provider about a vitamin D supplement or a multivitamin-mineral supplement that contains vitamin D. If you take one, make sure it is the vitamin D3 form, cholecalciferol.
- Eat foods rich in vitamin D each day.
- Maintain a healthy weight.
- Talk to your doctor if you are using the weight loss drug, Orlistat (brand names include Xenical and Alli). This drug may decrease the absorption of vitamin D.
- Antacids, some cholesterol lowering drugs, some anti-seizure medications, and steroids (like Prednisone) interfere with the absorption of Vitamin D, so discuss your vitamin D intake with your doctor or pharmacist if you take any of these drugs.