

Vitamin D, Diet, and Supplementation

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Vitamin D is an essential nutrient, which means that it is vital for a healthy, living person to stay that way: healthy and alive. The term “essential” has a second meaning, as well, and is ascribed to nutrients that need to be taken in via food or drink, because the body can’t synthesize them on its own. Vitamin D, while certainly a nutrient necessary for health and well-being, is unlike other nutrients in a key way: your body can make it out of sunshine.

Your amazing body is designed to convert naturally-occurring oils in your skin into vitamin D when enough skin is exposed to enough sunlight for enough time. Pulling double duty as a *prohormone*, a hormone precursor that exercises its influence over some 2,000 genes of your body,¹ vitamin D’s influence is vast, affecting many parts of your health, from your hair to your toenails.

Yet most people in the United States are grossly deficient in this essential nutrient!² How can this be? It turns out that a lot of us simply don’t spend enough time in the sun. If you think about it, you probably spend more time indoors than out – at home, at work, at the mall, at the theatre, etc. And when you *do* get away for some time at the beach or a park, you probably cover yourself with sunscreen, which inhibits the body’s ability to make vitamin D, as well.

Unfortunately, we can’t really rely on our food intake to keep our vitamin D levels optimal, either. Because nature intended for our bodies to make their own vitamin D – with the sun’s help – this essential nutrient is actually found naturally in very few foods, such as salmon, tuna, and mackerel. Other sources, including beef liver, eggs, cheese, and some mushrooms contain trace amounts.^{3,4} Still, it has proven difficult for most people to get enough vitamin D from their food, even after it has been added to dairy products on a nationwide scale.

Because vitamin D is so important – contributing not only to bone health, but protecting against cancer, aiding in the detoxification of the brain, optimizing the immune system, encouraging fertility, and more – it’s vital that we keep our

At A Glance

- Vitamin D is an essential nutrient, required for life and health.
- Vitamin D can be synthesized in the body in ample sunlight.
- Most people are deficient in vitamin D despite the fortification of foods.
- Vitamin D exhibits powerful health-promoting effects throughout the body.
- Supplementing with vitamin D is an important step in maintaining optimal vitamin D levels.
- Vitamin D₃ is far more effective than D₂.
- Experts recommend supplementing with vitamin D₃ between 4,600-10,000 IU/day.
- Long-term supplementation with Vitamin D₃ is safe but should not exceed 40,000 IU/day over a period of time.

vitamin D levels in the optimal range, which experts suggest is 50-100 ng/mL.⁵ Sadly, most people's vitamin D levels fall in the 20-30 ng/mL range...or lower.⁶

While the only sure way to know your vitamin D level is to have your blood tested, you can ensure that your body is getting sufficient amounts of vitamin D by using nutritional supplements. There are basically two forms of vitamin D available to you: D₂ and D₃. Of these two, D₃ has shown to be far easier for the body to use.⁷ Current recommendations made by a national food and nutrition board suggest that a daily intake of vitamin D₃ be in the range of 400 – 800 IU, depending on age, gender, and other life factors such as pregnancy.⁸

Health researchers, however, have concluded that optimal vitamin D levels occur in the body when supplementing between 4,600 – 10,000 IU/day.⁹ That may sound exorbitant, especially considering the lower recommendations made by others, but 10,000 IU of vitamin D₃ can be achieved with only two pea-sized capsules, and is equivalent to spending about 30 minutes bare-skinned in the sun.¹⁰

It's certainly worth pointing out that it *is* possible to get too much vitamin D. That said, the *Journal of Clinical Endocrinology and Metabolism* suggests that toxicity in humans probably occurs after a long-term daily consumption of 40,000 IU/day.¹¹ For most people, supplementing with 5,000 IU of vitamin D₃ each day would not only be safe, but quite health-boosting.

Of course, you'll want to be sure that the vitamin D supplement you're using has been manufactured correctly and safely according to current Good Manufacturing Practices (cGMP) set by the U.S. Food and Drug Administration. That way, you'll know that you're getting exactly what you're paying for, and that it has been tested to be of high quality and purity.

¹ *My One Hour FREE Vitamin D Lecture to Clear Up All Your Confusion on This Vital Nutrient*, Retrieved November 5, 2010 from <http://articles.mercola.com/sites/articles/archive/2008/12/16/my-one-hour-vitamin-d-lecture-to-clear-up-all-your-confusion-on-this-vital-nutrient.aspx>

² *Startling Findings About Vitamin D Levels in Life Extension Members*, Retrieved November 5, 2010 from http://www.lef.org/magazine/mag2010/jan2010_Startling-Findings-About-Vitamin-D-Levels-in-Life-Extension-Members_01.htm

³ *Dietary Supplement Fact Sheet: Vitamin D*, Retrieved December 15, 2010 from <http://ods.od.nih.gov/factsheets/VitaminD-Consumer/>

⁴ *Mushrooms and Vitamin D*, Retrieved December 15, 2010 from <http://themushroomlady.blogspot.com/2008/02/mushrooms-and-vitamin-d.html>

⁵ *Startling Findings About Vitamin D Levels in Life Extension Members*, Retrieved November 5, 2010 from http://www.lef.org/magazine/mag2010/jan2010_Startling-Findings-About-Vitamin-D-Levels-in-Life-Extension-Members_01.htm

⁶ *Startling Findings About Vitamin D Levels in Life Extension Members*, Retrieved November 5, 2010 from http://www.lef.org/magazine/mag2010/jan2010_Startling-Findings-About-Vitamin-D-Levels-in-Life-Extension-Members_01.htm

⁷ *Vitamin D2 is Much Less Effective Than Vitamin D3 in Humans*, Retrieved November 5, 2010 from <http://jcem.endojournals.org/cgi/content/full/89/11/5387>

⁸ *Dietary Supplement Fact Sheet: Vitamin D*, Retrieved December 15, 2010 from <http://ods.od.nih.gov/factsheets/VitaminD-Consumer/>

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- ⁹ *Startling Findings About Vitamin D Levels in Life Extension Members*, Retrieved November 5, 2010 from http://www.lef.org/magazine/mag2010/jan2010_Startling-Findings-About-Vitamin-D-Levels-in-Life-Extension-Members_01.htm
- ¹⁰ *Vitamin D2 is Much Less Effective Than Vitamin D3 in Humans*, Retrieved November 5, 2010 from <http://jcem.endojournals.org/cgi/content/full/89/11/5387>
- ¹¹ *Vitamin D2 is Much Less Effective Than Vitamin D3 in Humans*, Retrieved November 5, 2010 from <http://jcem.endojournals.org/cgi/content/full/89/11/5387>