

**Q.** I hear a lot about the importance of vitamin D recently. I live in a northern area. Do I need to take vitamin D supplements?

**A.** This past year, it seems there's been a new study every month showing the health benefits of vitamin D, such as:

- Stronger bones, thus fewer fractures
- Improved muscle function in older persons to help prevent falls
- Fewer heart attacks
- Protection against many common cancers
- Less likelihood of developing diabetes
- Protection against high blood pressure

Adequate vitamin D may also help asthma and certain autoimmune diseases, including multiple sclerosis.

Many of these new studies need further investigation and verification, but the list is very impressive and very promising. One recent review of 18 studies on vitamin D<sup>5</sup> found that people taking vitamin D supplements, even if as little as 400 IU daily, had a 7% reduction in total mortality during the study period. That's quite remarkable!

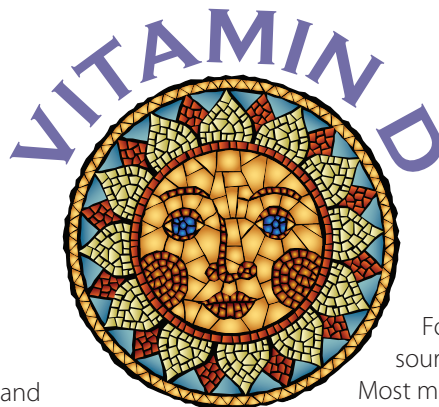
The sun is actually very efficient at making vitamin D. It's estimated that direct sun on your skin in the summer will make as much as 20,000 IU of vitamin D in only 20-30 minutes.<sup>2</sup> For optimum production of vitamin D, aim for 2 sessions (at least an hour apart) of 10-15 minutes in the open sun.

However, people living in Canada and the northern half of the United States are often low in vitamin D – especially in the winter. When the sun is low on the horizon, the UV light that makes vitamin D in our skin is largely filtered out. Also, when it's cold people usually stay indoors more and cover up to stay warm, so again, there is little opportunity to make vitamin D. As a result, many people become deficient.

In a recent 5-year study of lack of vitamin D and risk of cardiovascular disease in the Boston area, researchers found that 1 out of every 4 people (28%) had low vitamin D levels in the blood, low enough that it increased their risk of a heart attack or stroke by over 60%. Other studies of African Americans found as many as 40% had sub-optimal blood vitamin D levels (dark-skinned people make less vitamin D from sunshine).

These studies emphasize the importance of not just relying on the sun for vitamin D. It is important to have dietary sources as well – especially in the winter. About the only natural food source of vitamin D is fatty fish. Eskimos living in the far north, where there is no wintertime sun, rely on getting their vitamin D from fish. Other food sources are those that have been fortified with vitamin D milk, some soymilks, margarine, and some breakfast cereals. The amount of vitamin D in these foods,

## The Importance of



however, is quite small. For example, a glass of milk has about 100 IU of vitamin D and new research suggests adults may need as much as 800-1000 IU or more daily for best health.<sup>1</sup> Vitamin D researchers are urging the U.S. government to raise our current recommended vitamin D levels. The Canadian Cancer Society recently raised their recommended level of vitamin D to 1,000 IU daily for all adults in Canada.<sup>4</sup>

For northern residents, the most reliable source of vitamin D in winter is a supplement. Most multivitamins have about 400 IU of vitamin D – the amount currently recommended by the USDA.

According to Dr. Bruce Hollis, a vitamin D researcher at the Medical University of South Carolina, you need at least 800-1,000 IU of vitamin D to bring your blood levels up to a healthy range, and some people may need even more.<sup>2</sup> You will most likely be getting some vitamin D in your diet, so taking an additional 800-1,000 IU daily should be adequate through the winter. The Institute of Medicine has set the safe upper limit of vitamin D intake at 2,000 IU daily. Don't exceed this amount unless your doctor prescribes more for a special reason, such as to bring your vitamin D blood level up quickly.

If you want further evidence of adequate intake, you can ask your doctor for a vitamin D blood test (25-hydroxy-vitamin D). It is a little expensive and optimal blood values are not yet known. Lab test norms currently show values as low as 5 ng/mL as normal (because it is common in the population), but values less than 15 ng/mL have been shown to significantly increase your risk of a heart attack and cancer among other problems.<sup>3,4</sup> Most researchers – and the UC Berkeley Wellness Letter – suggest a blood level of at least 30-40 ng/mL is desirable. Dr. Hollis suggests a range of 50-60 mg/mL may be more ideal.

During the summer, make a point to get some good sun exposure every day. If not, continue taking vitamin D supplements. Maintaining adequate vitamin D levels is easy and inexpensive and can have a profound affect on your health.

*References:*

1. Canadian Paediatric Society (CPS). Vitamin D supplementation: Recommendations for Canadian mothers and infants. *Paediatrics & Child Health*. 2007;12(7):583-589.
2. Vitamin D: are you getting enough? *UC Berkeley Wellness Letter*. Feb. 2008.
3. Wang TJ, et al. Vitamin D deficiency and risk of cardiovascular disease. *Circulation*. 2008;117:503-511.
4. *Medical News Today*. Canadian Cancer Society Announcement. Jan. 30, 2008.
5. Autier P, Gandini S. Vitamin D Supplementation and Total Mortality: A Meta-analysis of Randomized Controlled Trials. *Archives of Internal Medicine*. 2007;167(16):1730-1737.

**What's an IU?**  
*IU stands for International Unit. It is a measurement of the biological effect of a vitamin or drug. Because an IU is dependent upon the potency of the substance, there is no standard measure, such as there would be for grams (weight) or liters (volume).*

