

Nutrition News

Department of Human Nutrition



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Vitamin D—More Important Than We Thought

Vitamin D, the “sunshine vitamin,” has been recognized for decades as an essential partner with calcium in promoting bone health. Only 10-15% of the calcium that we ingest is absorbed without it. As a result, our milk is fortified with vitamin D and we have virtually eliminated rickets—that is, until recently. Cases of this childhood disease—characterized by soft bones prone to fracture and deformity—are again on the rise. Furthermore, other diseases and conditions characterized by vitamin D deficiency (or at least inadequacy) are on the rise in all age groups and in all geographic regions of our country. The question is—why?

Screen-time and Sunscreen May Be Decreasing Vitamin D Stores

Several factors may contribute to our coming up short on vitamin D. Many of us are not consuming as much vitamin D-fortified milk as a generation ago, and instead are increasing our intake of soft drinks and other non-dairy products. In an effort to avoid skin cancer, we are following current recommendations to limit our exposure to sun and wear sunscreen when we are outside for an extended period of time—limiting our ability to produce vitamin D. We are also spending a lot more “screen-time” sitting at our computers and watching television than we do participating in outdoor activities.

Why is Vitamin D so important at every age?

Vitamin D is essential for the immune system to work optimally. When a pregnant woman has poor vitamin D status, it puts her child at risk for more than rickets. A child born with sub-optimal stores of vitamin D may be at later risk for type 1 diabetes and asthma.

People with adequate amounts of vitamin D may experience fewer immune-related diseases such as multiple sclerosis, rheumatoid arthritis and even periodontal disease of the gums. Recent findings show that adequate amounts of vitamin D can reduce the risk for certain types of cancers (breast and colorectal) and heart disease.

Because vitamin D is stored in the fat cells of the body, it may not absorb as easily into the blood stream of overweight people, possibly contributing to vitamin D deficiency-related diseases in this population. Many older adults who have insufficient intake of vitamin D may experience decline in muscle strength, resulting in falls and fractures.

What should you do?

Although data are still coming in on the benefits and ideal dosage of vitamin D, it is not too early to consider what you can do to obtain adequate levels. Discuss your situation with your doctor, who may order a blood test to determine your vitamin D status. You may benefit from one or more of the following:

- A diet with good sources of vitamin D, such as fatty fish and fortified foods including cow or soy milk.

- A multivitamin supplement or 10-15 minutes in the sun a few times a week where 40% of your body is exposed without sunscreen during the spring, summer and fall. Unfortunately, the sun's rays are not direct enough in Kansas winters to allow the skin to produce vitamin D.

The findings of most of the recent studies on vitamin D are very encouraging. However, this is NOT a case of "if a little is good, then a lot is better." It appears that too much vitamin D may be harmful. Excessive amounts may contribute to calcification and limited flexibility of the blood vessels in the older adult brain. As in most things, moderation is best.

Sources:

Vitamin D Deficiency, *New England Journal of Medicine*, July 2007;
Intakes of Calcium and Vitamin D and Breast Cancer Risk in Women, *Arch Intern Med.* 2007;
Vitamin D Deficiency Widespread During Pregnancy, *Journal of Nutrition*, 2007

For more information about healthy eating, contact your local extension office.

The Food Assistance Program can help people of all ages with low income buy nutritious foods for a better diet.

To find out more, call toll-free 1-888-369-4777.

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