

PRESCRIPTIONS FOR PARENTS -

MAKING SCIENTIFIC RESEARCH PRACTICAL FOR FAMILIES



THE BENEFITS OF VITAMIN D

Research increasingly demonstrates the benefits of Vitamin D. Vitamin D is found in small amounts in some foods, such as fatty fish (sardines, tuna), and it is added to some dairy products and cereal. But most of our vitamin D is obtained through exposure to sunlight.

However, since too much sun exposure can cause skin cancer, dermatologists are encouraging all of us to use sunblock and spend less time in direct sun. So, we should not be surprised that studies are finding at least 20% of the US population has low levels of Vitamin D.

The Institute of Medicine of the National Academies has recommended vitamin D supplementation of 600 IU per day for people between 1 and 70 years of age. Older people need 800 IU per day, while it is recommended that infants, especially those who are breastfeeding, receive 400 IU per day.

In our newsletter we will provide research documenting the benefits of Vitamin D to encourage you to follow the Institute's guidelines.



VITAMIN D INFORMATION

There is a debate among researchers regarding how much vitamin D people need today. Historically people spent much of their lives outdoors, thus having more sun exposure that contributed to higher vitamin D levels. The recommendations in the 20th century for 200 - 400 units of supplementation were based on the amount of vitamin D necessary to prevent rickets, a bone disease.

When the Institute of Medicine recommended increased doses of vitamin D supplementation, a controversy developed. Researchers promoting the health benefits of vitamin D actually felt the recommendations were too low. To read more, see: <http://www.hsph.harvard.edu/nutritionsource/vitamin-d-fracture-prevention/>

Immune Function

Vitamin D plays a role in regulating the immune system, so much of the research focuses on the relationship



INFANTS - PRESCHOOLERS

Premature birth

Researchers are finding evidence that mothers with lower vitamin D levels may be more likely to give birth prematurely. In one study pregnant women were given 4000 IU per day which is 10 times the amount usually recommended. The women experienced no adverse effects but had half the rate of pregnancy-related complications.

Wagner CL, McNeil R, et al. A



ELEMENTARY AGE

Diabetes

Type 1 Diabetes is known to be increasing in children in America, and there are many possible causes. One possible relationship involves vitamin D. A 30 year study of 10,000 children in Finland who were followed from birth showed that those children who regularly received vitamin D supplementation had a 90% lower risk of developing Type 1 diabetes.

Hypponen E, Laara E,



ADOLESCENTS and YOUNG ADULTS

Schizophrenia

Research published last month showed a relationship between vitamin D levels and the risk of schizophrenia. Researchers examined 19 studies of 2000 adults and found that people with vitamin D deficiency were more than twice as likely to be diagnosed with schizophrenia as those who had sufficient levels.

Esmailzadeh et al. "Serum Vitamin D Levels in Relation to Schizophrenia. J of Clinical Endocrinology and Metabolism. 2014, July 22.

between vitamin D levels and autoimmune diseases such as multiple sclerosis.

Cancer

Epidemiology has shown that the incidence of some cancers is lower among individuals living in southern latitudes where they were exposed to high levels of ultraviolet light. Also, vitamin D appears to slow or prevent the growth of cancer cells in mice.

Many studies have shown there is a reduced risk of colorectal cancer in people with higher blood levels of Vitamin D, but there are other studies which do not demonstrate that relationship. So researchers are now conducting trials to determine what dose of Vitamin D may be useful to prevent cancers.

Heart disease

The heart is a muscle and has receptors for Vitamin D. The Health Professional Follow up Study followed 50,000 men for 10 years and found that those who had inadequate levels of vitamin D were twice as likely to have a heart attack as those who had adequate levels.

randomized trial of Vitamin D supplementation in 2 community health center networks in S Carolina. Am J Obstet Gynecol. 2013 Feb; 208(2):137.e1-13.

Asthma

Studies have suggested a link between low vitamin D levels in early life and the subsequent development of asthma. In a study of over 900 children in Qatar, half with asthma and half without, 68.1% of children with asthma were deficient in vitamin D compared with only 36.1% of children without asthma.

Bener A, Ehlayel MS, et al. Vitamin D Deficiency as a Strong Predictor of Asthma in Children. Pediatrics. 2012; 157:168-175.

Reunanen A, Jarvelin MR, Virtanen SM. Intake of vitamin D and risk of type 1 diabetes: a birth-cohort study. Lancet. 2001; 358:1500-3.

Viral infections, "the flu"

A randomized control trial in Japanese school children evaluated the results of daily vitamin supplementation on 340 children during the four months of the flu season. Half of the children received 1200 units of Vitamin D, while the other children received placebo pills. The rates of Type A influenza were 40% lower in the children who received vitamin D supplementation. More research is needed in this area.

OLDER ADULTS

Fractures

An analysis of 12 research trials on prevention of fractures that included more than 40,000 elderly people, most of them women, found that high intakes of vitamin D supplements (800 IU per day) decreased the rates of hip and non-spine fractures by 20%.

Bischoff-Ferrari HA, Willett WC, Wong JB, et al. Prevention of nonvertebral fractures with oral vitamin D and dose dependency: a meta-analysis of randomized controlled trials. Arch Intern Med. 2009; 169:551-61.

Falls

It is possible that Vitamin D also increases muscle strength and helps prevent falls. Only doses of 700 - 1000 units were helpful; lower dosing did not provide protection.

Bischoff-Ferrari HA, Dawson-Hughes B, Willett WC, et al. Effect of Vitamin D on falls: a meta-analysis. JAMA. 2004; 291:1999-2006.

Dr. Jane Anderson

000-000-0000
md@physicianscenter.org
<http://1592008.talkfusion.com>