



VITAMIN D

Vitamin D is an extraordinary nutrient because its needs can be met in two distinct ways. The first is by the body's ability to produce it internally from sun exposure; the second is from foods and dietary supplements. In addition to aiding in the absorption of calcium for bone health, mounting evidence points to other roles, including immune system support, the reduction of inflammation in the body and cell health. Even as its



supportive role in human health becomes more popularized, concerns about the sufficiency of vitamin D in the population are growing. Recently, there has been some evidence about the re-emergence of vitamin D-deficient rickets and a prevalence of low circulating levels of vitamin D in the United States population. Until the revelation of these data, it had been assumed that vitamin D deficiency had been eliminated as a significant problem, and that the strategies used to achieve this success (e.g., food fortification) served as role models of successful public health interventions. For *all* of the reasons mentioned above it's essential that the message of vitamin D gets out, it clearly plays a vital role in optimal wellness.

VITAMIN D SOURCES:



SALMON



MACKEREL



SUPPLEMENTATION



BALANCED AMOUNT OF SUNLIGHT



EGGS



VITAMIN D FORTIFIED MILK

VITAMIN D DEFICIENCY LINKED TO INCREASED HEART DISEASE RISK

Recently there has been an increasing number of studies linking vitamin D to its protective abilities against low bone density and certain types of cancers. Additionally there is growing evidence suggesting that a vitamin D deficiency may adversely affect the cardiovascular system, but data from longitudinal studies are lacking. For this reason, researchers evaluated an offspring study involving 1739 participants that was initiated in 1971. They examined the association between vitamin D status and disease risk status. Their findings showed that people with low vitamin D levels had a higher rate of cardiovascular events. This raises the possibility that treatment of a vitamin D deficiency, through supplementation or lifestyle measures, could reduce heart disease risk. Further clinical and experimental studies may be warranted to confirm this conclusion. For more information go to the journal *Circulation*, January 2008.

<http://www.virtualhealthinfo.com/links/96.htm>





VITAMIN D IS KNOWN AS THE "SUNSHINE VITAMIN" BECAUSE THE BODY MANUFACTURES IT AFTER BEING EXPOSED TO SUNSHINE.

Source: U.S. National Library of Medicine and the National Institutes of Health

VITAMIN D DEFICIENCIES STILL COMMON YET PREVENTABLE

According to a recent review in the *New England Journal of Medicine*, vitamin D deficiencies are common in children and adults even though a lot of processed foods are fortified with this essential nutrient. In utero and during childhood, vitamin D deficiency can inhibit growth, cause skeletal deformation and may increase the risk of hip fracture later in life. Vitamin D deficiency in adults can contribute to muscle weakness, osteopenia, osteoporosis, and a number of other diseases. Additionally, the review stated that much evidence suggests the recommended daily intakes are inadequate and need to be increased to at least 800 IU's of vitamin D3 per day. Unless a person eats oily fish on a regular basis, it is difficult to obtain this level from dietary sources. Therefore, sensible sun exposure and the intake of supplements are needed to fulfill the body's vitamin D requirement. For more information go to the *New England Journal of Medicine*, July 2007.

<http://www.virtualhealthinfo.com/links/97.htm>



VITAMIN D AND OSTEOPOROSIS

It is estimated that over 25 million adults in the United States have, or are at risk of developing, osteoporosis. Osteoporosis is a disease characterized by fragile bones, and it significantly increases the risk of bone fractures. Osteoporosis is most often associated with inadequate calcium intake. However, a deficiency of vitamin D also contributes to osteoporosis by reducing calcium absorption. While rickets and osteomalacia are extreme examples of vitamin D deficiency, osteoporosis is an example of a long-term effect of vitamin D insufficiency. Adequate storage levels of vitamin D help keep bones strong and may help prevent osteoporosis in older adults, in non-ambulatory individuals (those who have difficulty walking and exercising), in post-menopausal women, and in individuals on chronic steroid therapy.

Source: National Institutes of Health Office of Dietary Supplements

VITAMIN D TIPS

Building strong bones, especially at an early age, is the best defense against developing osteoporosis, and a healthy lifestyle is essential for keeping bones strong.

Here are some healthy lifestyle tips for bone health:

- Take daily recommended amounts of calcium and vitamin D in addition to a healthy diet
- Participate in regular weight-bearing exercise activities
- Avoid smoking and excessive alcohol