



Vitamin D Deficiency: A Gloomy Forecast

When you think of vitamin D, you probably think of two sources...fortified milk and sunshine. So does vitamin D deficiency occur rarely in the United States? Surprisingly, recent studies suggest that more than 50% of Americans may be at risk of vitamin D deficiency, a condition that is often undetected and untreated.

What are the best sources of vitamin D?

Most foods contain only small amounts of vitamin D. The richest sources of naturally occurring vitamin D are high-fat foods such as oily fish, egg yolk, and liver. However, more common foods such as milk, fruit juices, breads, and cereals may be fortified with vitamin D. The most popular dietary source of vitamin D is fortified milk. Yet, most of our vitamin D comes from exposure to sunlight. Ultraviolet rays trigger the conversion of a compound in the skin to a vitamin D-like substance that is transformed in the liver and then in the kidney to an active form of the vitamin.

Who is at risk of vitamin D deficiency?

With the increasing popularity of soft drinks and growing preference for video/computer games and other indoor activities, Americans are increasing their risk of vitamin D deficiency. Individuals who do not include fortified milk, vitamin supplements, or the outdoors in their lifestyle habits may have suboptimal levels of vitamin D. At-risk groups include all ages from infants and children to adolescents, pregnant women, and older adults. Dark-skinned persons and those who live in northern regions or in smoggy or cloudy areas are at higher risk of vitamin D deficiency due to insufficient exposure or production of vitamin D from sunlight. Also, persons with kidney disease or malabsorption syndromes are at higher risk of vitamin D deficiency.

What are the consequences of vitamin D deficiency on health?

The most well-known role of Vitamin D is to increase calcium absorption. With vitamin D deficiency, blood calcium levels are kept constant by taking calcium from the bones, resulting in thin, brittle bones (leading to conditions known as rickets in children and osteomalacia or osteoporosis in adults). Recent research has identified important roles for vitamin D related to the prevention of diseases such as cancer, arthritis, and diabetes. It seems that vitamin D regulates many genes that control cellular processes, such as cell growth, and contributes to normal immune response. The link between vitamin D deficiency and chronic diseases is being confirmed by current research and will continue to be a focus of future research.

How can I get enough vitamin D?

Current recommendations are to include at least 16 ounces of fortified milk in your daily diet and to allow for 15 minutes of sun exposure at least two times per week. Since sunscreens with a SPF of 8 or higher block 95-99% of ultraviolet rays, apply your sunscreen 15 minutes after going outdoors. Supplements may be taken to achieve healthy levels of vitamin D; however, intakes above the Tolerable Upper Limit of 50 µg (2,000 I.U.) per day may be harmful. Some scientists believe that the current recommendations should be increased. So stay tuned for more news about vitamin D!

