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Vitamin D: It is important to know your levels, especially in winter

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When was the last time you had your vitamin D levels checked? And why should you know?

Vitamin D is not just a vitamin important for bone health and the prevention of rickets. It is a prohormone that is essential for regulating calcium metabolism, cell growth, cardiovascular dynamics, immune/ inflammatory balance, neurologic function and genetic expression.

Vitamin D is produced when the sun's ultraviolet rays strike the skin. It is then converted in the liver and kidneys to its active form. Twenty-30 minutes of sunshine daily on the entire body is required to produce adequate physiologic levels of vitamin D in the body. Full-body exposure to ultraviolet light will provide about 4,000 to 20,000 international units of vitamin D.

Americans do not get this much sun exposure, especially at higher latitudes. Sunscreen creates a problem because it blocks 97-100 percent of natural vitamin D production.

It is virtually impossible to get enough vitamin D through diet even with cod liver oil supplementation. Three tablespoons of cod liver oil would be required every day to attain enough D, but because of the high level of vitamin A in this oil, one could end up with vitamin A toxicity.

D3 is the naturally occurring form of vitamin D and can be obtained through high-quality supplements.

D2 is produced by irradiating fungi and is much less efficient as a precursor to the active form of vitamin D. Dairy products are fortified with D2, providing a vastly inferior source, not to mention the potential toxicities of D2.

The amount of D2 put in dairy products is also inadequate, which leads us to the question of how much is safe and effective?

Supplementation of 4,000 to 10,000 IU for adults is clinically safe since such doses are consistent with physiologic requirements as noted by the amount produced by sun exposure. I have noticed recently my patients bringing in calcium/vitamin D combination products. These products have a grossly suboptimal level of vitamin D.

Vitamin D supplementation has been scientifically shown to benefit the following conditions:

- Cardiovascular disease.
- Hypertension.
- Type 2 diabetes, prevention of type 1 diabetes. n Osteoarthritis.
- Multiple sclerosis.
- Depression.
- Epilepsy.
- Migraine headaches.

- Polycystic ovary syndrome.
- Musculoskeletal pain.
- Autoimmune/inflammatory conditions such as lupus and rheumatoid arthritis.
- Cancer prevention and treatment.

It is estimated as many as 47,000 cancer deaths could be prevented each year in America if adequate vitamin D levels were attained.

It is extremely important to have your levels checked through a blood test, in addition to consistent monitoring of blood calcium levels. Vitamin D cannot be toxic in and of itself, but by raising calcium levels to a toxic range.

This is a rare problem but should be monitored. I test and monitor vitamin D levels frequently in my practice. It has become a vital piece of the pie in achieving optimal health.

This is the opinion of Dr. Nikolas R. Hedberg, a board-certified chiropractic internist and practices whole body alternative healthcare in Asheville.