

## The Growing Popularity of Vitamin D - *By Grace Yu, MD*

A fat soluble vitamin that is essential to good health, Vitamin D has been receiving great press of late, thought to help prevent heart disease, certain cancers, and autoimmune diseases. While further research is needed, it is proven to enhance a number of functions including its best known role of developing and maintaining strong bones.

Vitamin D stimulates absorption of dietary calcium and phosphorus in the small intestine and also helps to maintain blood calcium and phosphorus levels. Unlike most other vitamins that are obtained solely through diet, Vitamin D is also made in the skin under sunlight. The amount produced by the skin is dependent on factors such as sun exposure, age and skin color. Skin production decreases with age and a darker skin individual produces less than a person with lighter skin. Generally speaking, 10 to 15 minutes of sun exposure to face and arms two to three times a week without using sunscreen can produce adequate amount of vitamin D.

Dietary sources include fatty fish, cod-liver oil and fortified milk and cereals. Recommended daily vitamin D intake is 600-800 I.U. (international unit) for a normal healthy adult. Vitamin D produced in the skin and absorbed through the

intestine is converted to a biologically active form in the liver and kidney.

A person can become deficient in this important vitamin with inadequate dietary intake, inadequate sun exposure, obesity, or with certain medical conditions. Chronic kidney and liver diseases and ailments associated with decreased intestinal absorption such as Crohn's, celiac sprue and cystic fibrosis can cause vitamin D deficiency.

Severe deficiency can cause softening and malformation of bones in children and adults known as rickets and osteomalacia. These conditions are not commonly seen since milk and cereals are fortified with vitamin D. More commonly, vitamin D deficiency contributes to decreased bone density and cause osteopenia and osteoporosis. Low vitamin D level can also produce vague bone and muscle pain.

While your levels can be checked in the blood, it is not feasible to screen everyone for vitamin D deficiency; however, a test should be considered in those at risk of deficiency, symptomatic or diagnosed with osteopenia/osteoporosis.

### Wishing Each of You a Healthy Holiday

We at Thunderbird Internal Medicine are grateful for all of our patients. A few reminders to get you through the holidays...

- ✿ Wash hands often
- ✿ Manage stress by being realistic on spending and time commitments
- ✿ Don't drink and drive
- ✿ Moderation is key — enjoy treats while maintaining a healthy diet
- ✿ Whether it's a pick-up basketball game, visit to the gym or walk with the family, keep moving!



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