

Vitamin D intake recommendations updated for better bone health

The Institute of Medicine (IOM) now recommends an intake of 600 IU/d of vitamin D for most healthy adults younger than 71 years and 800 IU/d for healthy persons 71 years and older, according to the National Osteoporosis Foundation (NOF). Earlier IOM recommendations were 200 to 400 IU/d for healthy adults younger than 71 years and 600 IU/d for those 71 and older.

The updated IOM vitamin D intake recommendations are sufficient for most healthy adults, it was noted. However, more vitamin D may be needed by others, including those who have very little sun exposure (or who consistently wear sunscreen or protective clothing), dark skin, osteoporosis, or difficulty with absorbing dietary fat and those who are taking medicines that interfere with vitamin D absorption.

Since 2008, the NOF has recommended an intake of 400 to 800 IU/d of vitamin D for healthy persons aged 19 to 49 years and 800 to 1000 IU/d for those 50 years and older. The NOF's recommendations for daily intake remain higher than the IOM's but fall well within the margin of safety, the NOF stated.

The recently issued IOM report set the safe upper limit for daily intake of vitamin D at 4000 IU. It did not address the vitamin D requirements for persons at high risk for fractures or those who require treatment.

The NOF's recommendations for vitamin D are outlined in its online feature Bone Basics Alert, which provides patients with an overview of the importance of vitamin D in protecting their bones and various ways to maintain and improve bone health. Key points include the following:

- Although previous research suggested that vitamin D3 (cholecalciferol) is a better choice for fostering bone health than vitamin D2 (ergocalciferol), more recent studies show that vitamin D3 and vitamin D2 are equally good for bone health.
- Sunlight is 1 of 3 sources of vitamin D. The skin makes vitamin D from UV-B rays in sunlight; the amount varies with the time of day, season, latitude, skin pigmentation, the person's age, and other factors. Because of concerns about cancer, many persons take measures, such as the use of sunscreen, to protect their skin from the harmful effects of the sun. Therefore, they need to obtain vitamin D from other sources to promote bone health.
- Food is another source of vitamin D. Because vitamin D is naturally available in only a few foods (eg, wild-caught mackerel, salmon, tuna, and other fatty fish),

obtaining all the needed vitamin D from food is difficult. Vitamin D often is added to milk and to some brands of dairy products, orange juice, soymilk, and cereals. Labels should be checked to determine whether it has been added to a particular product.

- Supplements and medications are another source for those who do not take in enough vitamin D. Before a supplement is added, checking whether any supplements, multivitamins, or medications already being taken contain vitamin D is advised, as is estimating the amount of vitamin D already being obtained from foods. Vitamin D supplements do not need to be taken with food or with a calcium supplement. Asking the physician or a pharmacist for help in choosing a vitamin D supplement is recommended.

- A laboratory test may be used to measure a person's vitamin D levels in the blood. Persons at risk for vitamin D deficiency, such as those who spend little time in the sun, live in nursing homes, have certain medical conditions (eg, celiac disease), take medicines that affect vitamin D levels, or are obese, are advised to consult with their physician about whether a test is needed.

- Patients with osteoporosis whose blood test shows that they do not have enough vitamin D may receive a higher dose of vitamin D (as much as 50,000 IU of vitamin D2 per week) for a short time until their blood level increases. Levels should be tested again after 3 months, and then patients should continue taking the dose recommended by their physician to maintain their blood levels of vitamin D.

- Patients are advised to consult with their physician about their specific vitamin D requirements.

For more information about vitamin D and bone health, visit the NOF Web site at <http://www.nof.org>. Or, contact the organization at National Osteoporosis Foundation, 1150 17th Street NW, Suite 850, Washington, DC 20036; telephone (toll-free): (800) 231-4222; fax: (202) 223-2237. For a comprehensive discussion of vitamin D deficiency and fractures, go to www.musculoskeletalnetwork.com to see "Recognizing the musculoskeletal manifestations of vitamin D deficiency" ["Article Archive," October 4, 2009], authored by Andrea N. Jones and Karen E. Hansen, MD, at the University of Wisconsin.