

## VITAMIN D

If you asked a kindergartner which month is the sunniest, I think it's safe to say that most would *not* answer January. Even a 5-year-old senses the loss of the sun during the dark, cold winter months that we spend mostly indoors. What are we as physicians to do about it? Screen for vitamin D deficiency, of course. A reduction in exposure to the sun is a common risk factor for vitamin D deficiency and so it is important to put this important screening procedure on your radar for the next three months.

People who are exposed to normal quantities of sunlight do not need vitamin D supplements because sunlight is known to promote sufficient vitamin D synthesis in the skin. But many of us are indoors for most of the day or use high-powered sun block, which prevents this hormone synthesis in the skin. Plus, living in the northeast United States, we are not at the best latitude for sun exposure. About 60%-70% of all adult patients are vitamin-D deficient.

Our bodies still need the benefits of vitamin D. This steroid vitamin that is in the group of fat-soluble prohormones encourages the absorption and metabolism of calcium and phosphorous. Vitamin D works as a natural antibiotic and antiviral in helping the immune system fight off colds, flu and other infections. Vitamin D also has been shown to have numerous other benefits in reducing the risk of disease.

Very few foods naturally have vitamin D. Fortified foods provide most of the vitamin D in American diets.

- Fatty fish such as salmon, tuna, and mackerel are among the best sources.
- Beef liver, cheese, and egg yolks provide small amounts.
- Mushrooms provide some vitamin D. In some mushrooms that are newly available in stores, the vitamin D content is being boosted by exposing these mushrooms to ultraviolet light.
- Almost all of the U.S. milk supply is fortified with 400 IU of vitamin D per quart. But foods made from milk, like cheese and ice cream, are usually not fortified.
- Vitamin D is added to many breakfast cereals and to some brands of orange juice, yogurt, margarine, and soy beverages; check the labels.

Certain medications such as anticonvulsants, bile acid sequestrants, hormones, corticosteroids and anticoagulants can interfere with the body's ability to absorb vitamin D.

Intake reference values for vitamin D and other nutrients are provided in the Dietary Reference Intakes (DRIs) developed by the Food and Nutrition Board (FNB) at the Institute of Medicine of The National Academies. The reference intakes for vitamin D are:

- 1–70 years of age: 600 IU/day (200 IU is 5 µg equivalent)
- 71+ years of age: 800 IU/day
- Pregnant/lactating: 600 IU/day

The upper level intakes for vitamin D are:

- 0–6 months of age: 1,000 IU
- 6–12 months of age: 1,500 IU
- 1–3 years of age: 2,500 IU
- 4–8 years of age: 3,000 IU
- 9–71+ years of age: 4,000 IU
- Pregnant/lactating: 4,000 IU

Only by monitoring for vitamin D levels will your doctor be able to regulate your vitamin D levels. You will be amazed at how many patients say that they generally feel better just by taking vitamin D.