

## **Vitamin D, the Sunshine Vitamin**

*By Janet Hackert, Nutrition Specialist*

In the midst of the snowy, wintery days, a bright sunny day is a welcome occurrence. But when it comes to health, a winter's day with sunshine may not be enough to provide the Vitamin D – or sunshine vitamin – we need.

Vitamin D is called the Sunshine Vitamin because of the most common way our bodies acquire the nutrient. In human skin, ultraviolet B radiation from the sun creates a pre-vitamin. Next the liver converts it to 25-Vitamin D. In the kidney, brain, immune cells, and other cells involved in autoimmune disease prevention, Vitamin D takes an activated form and goes to work.

Vitamin D, along with Calcium, is important for bone health, but experts like Dr. Michael F. Hollick at Boston University Medical Center believe it also plays an important role in other aspects of health. He reports that adequate levels of Vitamin D are connected with “lower blood pressure and decreased risk of cancer and autoimmune diseases like multiple sclerosis and type I diabetes.”

The Institute of Medicine (IOM) recently increased the recommended levels of Vitamin D to 600 International Units (IU) for children and adults under 71 and 800 IU for older adults. This would be adequate to maintain a blood serum level of 20 ng/ml. But Dr Bess Dawson-Hughes, director of Tufts University HNRCA Bone Metabolism Laboratory, Dr. Hollick, and others suggest 30 ng/ml as the optimum Vitamin D level for both bone health and its other benefits. To reach this level, Dr Hollick recommends 1500-2000 IU per day for children over 13 and adults.

Vitamin D can be obtained in three ways: by brief unprotected exposure to the sun, from food, and through supplementation. Americans rely on casual exposure to the sun for 90-95% of their Vitamin D supply. In Missouri, brief exposure means 10-60 minutes in the spring and fall, and 2-35 minutes in the summer, with the time varying with skin type. But Missouri winter does not afford enough UV-B radiation to be effective.

Getting enough Vitamin D from food can also be tough because so few foods have Vitamin D naturally, only a few are fortified and those that have the nutrient have such a small amount compared to recommendations. For example, the most well known fortified food is milk, with an 8-ounce cup containing 115-120 IU. Fortified whole grain cereal would have about 100 IU for  $\frac{3}{4}$  cup, and a cup of oat cereal would have only 43 IU. Cooked sockeye salmon naturally contains 794 IU per 3-ounce serving and canned pink salmon with the bone has 465 IU; a 3-

ounce can of sardines has 164 IU of Vitamin D; and 3 ounces of tuna has 68-154 IU, according to the USDA.

Taking a supplement is another option. Consult a medical professional or registered dietician for recommendations on specific products and dosage that may work best for you.

For more information on this or any other subject, contact your local University of Missouri Extension office. MU Extension programs are open to all.

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