Main Line HealthCare

Sun Protection & Vitamin D Deficiency

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Although summer is winding down, it is still a good time to speak with our patients about the proper use of sunscreen and sun avoidance in order to prevent painful sunburn and future skin cancers. It is also important to note; however, that successful sun avoidance may affect Vitamin D levels.

Vitamin D is available to the human body through our skin and diet. The American Academy of Dermatology (AAD) position statement on Vitamin D *"recommends that an adequate amount of Vitamin D... be obtained from a healthy diet,*" rather than with the help of the sun. To protect against sun damage to the skin, the AAD provides the following recommendations: Use water-resistant sunscreens of at least SPF 15 that protects against both UVA and UVB radiation. Apply the sunscreen generously 30 minutes before sun exposure and again every two hours or after swimming, excess sweating, and/or toweling off. Even better, avoid direct sunlight during the hours of 10am to 4pm. Wear wide brim hats and clothing that shades the skin; and avoid sun tanning sessions and tanning booths which intensify the harmful rays that cause skin aging, wrinkling, and cancer.

When initiated at an early age, sun avoidance can protect our patients and is an integral part of sound primary prevention against skin cancer. However, without proper dietary supplementation, this may lead to Vitamin D deficiency, a disease once thought to be a thing of the past, but now believed to contribute to diseases of the bones, kidneys, heart, immune system, and more. In order to assure adequate Vitamin D levels with limited sun exposure, one can use supplements, fortified foods and beverages, and Vitamin D-rich foods such as oily fish, like salmon *(wild has more than farmed)*, mackerel, tuna, and even cod liver oil. As physicians, we must be wary of a severe deficiency and its consequences.

In recent years, investigators and associations from many medical specialties have looked at how much Vitamin D our patients should take, who we should test, and what to do with the tests. The American Academy of Pediatrics now advises that infants, children, and adolescents take 400 IU per day of Vitamin D, which is double the Institute of Medicine's (IOM) adequate intake (AI) guideline. The AAD asks us to consider doses higher than the current AI levels, which the IOM is in the process of reviewing. Furthermore, expert panels recommend a minimum of 800-2,000 IU of Vitamin D daily, especially for those who may be deficient. Studies show that risk factors for Vitamin D deficiency include older age, living farther from the equator, darker skin pigmentation, obesity, breastfeeding in infants, and proper sun avoidance. With Medicare recently proposing restrictions on indications for testing Vitamin D levels, it is important to keep these risk factors in mind. Finally, while no consensus guidelines exist for interpreting test results, agreement among experts is that a 25-Hydroxyvitamin D level <21 ng/ml is considered deficient, and those between 21 and 29 ng/ml have insufficient levels. Depending on the diagnosis, physicians can prescribe 1,000 to 50,000 IU per day of Vitamin D, keeping in mind that doses of 10,000 IU or more per day can increase the risk for Vitamin D deficiency for other reasons, are encouraged to discuss their own needs with their doctors before embarking on supplementation.