"D" for Cancer? Sunshine Vitamin May Play a Role in Prevention and Treatment

Over the years researchers have been studying how Vitamin D may help people maintain good health, but recent evidence indicates that the "Sunshine Vitamin" may also play a key role in cancer prevention and survivorship.

Spurred by the release in May 2008 of a study showing a possible link between very low and very high Vitamin D levels and lower survival rates of breast cancer[1], scientists are saying it's time to invest in clinical research.

According to the American Cancer Society (ACS), past studies looking at Vitamin D and cancer were mostly observational, not experimental. They've looked at the relationship between cancer and vitamin D, but have not been able to pinpoint exactly how the vitamin might influence cancer development, how much of an impact it might have, or how much would be necessary to have any effect.[2]

Until clinical trials yield results, the ACS, National Cancer Institute and Centers for Disease Control won't be making any recommendations, but the Canadian Cancer Society (CCS) has, and in a supplement released in June of 2007[3], they say that:

- Adults living in Canada should consider taking 1,000 international units (IU) of vitamin D supplements a day in the fall and winter, when sun exposure in the country is not high enough to produce adequate vitamin D naturally.
- Adults at higher risk of having vitamin D deficiency should consider taking the 1,000 IU supplement year round.

Others are urging children and adults, especially those who live in northern latitudes, to get adequate Vitamin D levels through exposure to sunlight–without sunscreen. According to the National Institute of Health, "The factors that affect UV radiation exposure and research to date on the amount of sun exposure needed to maintain adequate vitamin D levels make it difficult to provide general guidelines. It has been suggested, for example, that approximately 5-30 minutes of sun exposure between 10 a.m. and 3 p.m. at least twice a week to the face, arms, legs, or back without sunscreen usually results in sufficient vitamin D synthesis."

For more information about Vitamin D, go to http://dietary-supplements.info.nih.gov/factsheets/vitamind.asp

Recent research identified by the Emerging Issues in Cancer workgroup includes:

- 2006 observational study by the University of California-San Diego showing a relationship between low levels of vitamin D and prevention of ovarian cancer (www.ajpm-online.net/article/S0749-3797(06)00328-X/abstract)
- 2007 pooled analysis of observational studies conducted by those same researchers indicates that intake of 2000 IU/day of Vitamin D3, and, when possible, very moderate exposure to sunlight, could raise serum 25(OH)D to a level associated with reduction by 50% in incidence of breast cancer (www.ncbi.nlm.nih.gov/pubmed/17368188?dopt=Citation)
- 2007 randomized trial conducted at the Creighton University School of Medicine showing that supplementing with Vitamin D and calcium can reduce the risk of cancer in postmenopausal women (www.ajcn.org/cgi/content/abstract/85/6/1586)
- 2008 prospective study conducted at Dana-Farber Cancer Institute and the Harvard School of Public Health indicating that higher plasma 25-hydroxyvitamin D3 (25(OH)D) levels are associated with a decreased incidence of colorectal cancer (Ng K, et al "Circulating 25-hydroxyvitamin D levels and survival in patients with colorectal cancer" J Clin Oncol 2008; 26: 2984-2991).

Sources

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2. American Cancer Society, ACS News 12/29/05, www.cancer.org/docroot/NWS/content/NWS_1_1x_Can_Vitamin_D_Prevent_Cancer.asp

3. Canadian Cancer Society, 6/8/07, www.cancer.ca/Canada-wide/About%20us/Media%20centre/CW-Media%20releases/CW-2007/Canadian%20Cancer%20Society%20Announces%20Vitamin%20D%20Recommendation.aspx?sc_lang=en