Vitamin D Scientists' Call to Action Statement

We are aware of substantial scientific evidence supporting the role of vitamin D in prevention of cancer. It has been reasonably established that adequate serum vitamin D metabolite levels are associated with substantially lower incidence rates of several types of cancer, including those of the breast, colon, and ovary, and other sites.

We have concluded that the vitamin D status of most individuals in North America will need to be greatly improved for substantial reduction in incidence of cancer. Epidemiological studies have shown that higher vitamin D levels are also associated with lower risk of Type I diabetes in children and of multiple sclerosis. Several studies have found that markers of higher vitamin D levels are associated with lower incidence and severity of influenza and several other infectious diseases.

Higher vitamin D status can be achieved in part by increased oral intake of vitamin D3. The appropriate intake of vitamin D3 for cancer risk reduction depends on the individual's age, race, lifestyle, and latitude of residence. New evidence indicates that the intake should be 2000 IU per day. Intake of 2000 IU/day is the current upper limit of the National Academy of Sciences, Institute of Medicine, Food and Nutrition Board. New evidence also indicates that the upper limit should be raised substantially. The levels that are needed to prevent a substantial proportion of cancer would also be effective in substantially reducing risk of fractures, Type I childhood diabetes and multiple sclerosis.

Greater oral intakes of vitamin D3 may be needed in the aged and in individuals who spend little time outdoors, because of reduced cutaneous synthesis. Choice of a larger dose may be based on the individual's wintertime serum 25(OH)D level.

For those choosing to have serum 25-hydroxyvitamin D tested, a target serum level should be chosen in consultation with a health care provider, based on the characteristics of the individual. An approximate guide-line for health care providers who choose to measure serum 25-hydroxyvitamin D in their patients would to aim for 40-60 ng/ml, unless there are specific contraindications. Contraindications are extremely rare, and are well known to physicians. No intervention is free of all risk, including this one. Patients should be advised of this, and advised in detail of risks that may be specific to the individual.

Any risks of vitamin D inadequacy considerably exceed any risks of taking 2000 IU/day of vitamin D3, which the NAS-IOM regards as having no adverse health effect.

A substantially higher level of support for research on the role of vitamin D for the prevention of cancer is urgently needed. However, delays in taking reasonable preventive action on cancer by ensuring nearly universal oral intake of vitamin D3 of 2000 IU/day is costing thousands of lives unnecessarily each year that are lost due to fractures, cancer, diabetes, multiple sclerosis, and other diseases for which vitamin D deficiency plays a major role.

Updated April 30, 2008

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Vitamin D Supplements Necessary

By Dr. Patrick Massey | Daily Herald Columnist Date: Thu, 26 Feb 2009

Clinical medicine is beginning to realize the importance of good nutrition in health.

Over the past month, I have given three lectures to physicians and health care providers in the Alexian Brothers Hospital Network on the importance of vitamin D for the treatment and prevention of many illnesses.

Vitamin D is not really a vitamin. Since our bodies can make it, it is actually a hormone. However, we need a specific frequency of sunlight, ultraviolet B rays (UVB), to make vitamin D.

The intensity of UVB rays varies with the season and how far north you live. In Chicago, the UVB rays are too weak for 4 to 6 months of the year to make vitamin D. And even in the summer, many of us spend most of our time indoors, avoiding UVB altogether.

Other factors that can reduce vitamin D production or absorption include age, obesity, wearing sun block with an SPF of 8 or more, and intestinal, liver and kidney disease.

Fish oils are a robust source of vitamin D. Milk may have vitamin D added, but is far from adequate as the only dietary source. Therefore, we have to use supplements, but how much is enough?

Generally, 400 to 1,000 IU of vitamin D is recommended. However, studies show that much more is needed, especially for those who live in the northern latitudes, like Chicago.

Vitamin D binds to every cell in the body and can directly regulate how genes are expressed. Higher vitamin D levels have been linked to a reduced risk of colon, breast, prostate and pancreatic cancers, osteoporosis, heart disease, stroke, peripheral artery disease, seasonal affective disorder, depression and even the muscle pain associated with the cholesterol lowering drugs called statins.

There is no single dose of vitamin D that is best for everyone. What's most important is the level of vitamin D in the blood, which can be measured by a simple blood test. However, the "normal" ranges set by most laboratories in this part of the country are wrong. They are too low.

The body has an internal mechanism for detecting if vitamin D levels are low. It seems that the low end of the body's normal range is 35 ng/ml. To get to this level, some people may need robust amounts of vitamin D, daily.

Vitamin D toxicities are rare. To my knowledge, no one has ever died from taking vitamin D. Most of my patients have their vitamin D levels checked to make sure they are taking the right amount.

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