**Markedly Higher Vitamin D Intake Needed to Reduce Cancer Risk, Researchers Say**

**[*enlarge*](http://images.sciencedaily.com/2011/02/110222140546-large.jpg)



*A molecular model of Vitamin D3, also known as cholecalciferol. (Credit: iStockphoto/Martin McCarthy)*

ScienceDaily (Feb. 22, 2011) — Researchers at the University of California, San Diego School of Medicine and Creighton University School of Medicine in Omaha have reported that **markedly higher intake of vitamin D is needed to reach blood levels that can prevent or markedly cut the incidence of breast cancer and several other major diseases than had been originally thought.**

The findings are published February 21 in the journal *Anticancer Research*.

While these levels are higher than traditional intakes, they are **largely in a range deemed safe** for daily use in a December 2010 report from the National Academy of Sciences Institute of Medicine.

"We found that **daily intakes of vitamin D by adults in the range of 4000-8000 IU are needed to maintain blood levels of vitamin D metabolites in the range needed to reduce by about half the risk of several diseases -- breast cancer, colon cancer, multiple sclerosis, and type 1 diabetes,"** said Cedric Garland, DrPH, professor of family and preventive medicine at UC San Diego Moores Cancer Center. "I was surprised to find that the intakes required to maintain vitamin D status for disease prevention were so high -- much higher than the minimal intake of vitamin D of 400 IU/day that was needed to defeat rickets in the 20th century."

"I was not surprised by this" said Robert P. Heaney, MD, of Creighton University, a distinguished biomedical scientist who has studied vitamin D need for several decades. "This result was what our dose-response studies predicted, but it took a study such as this, of people leading their everyday lives, to confirm it."

The study reports on a survey of several thousand volunteers who were taking vitamin D supplements in the dosage range from 1000 to 10,000 IU/day. Blood studies were conducted to determine the level of 25-vitamin D -- the form in which almost all vitamin D circulates in the blood.

"Most scientists who are actively working with vitamin D now believe that 40 to 60 ng/ml is the appropriate target concentration of 25-vitamin D in the blood for preventing the major vitamin D-deficiency related diseases, and have joined in a letter on this topic," said Garland. "Unfortunately, according a recent National Health and Nutrition Examination Survey**, only 10 percent of the US population has levels in this range,** mainly people who work outdoors."

Interest in larger doses was spurred in December of last year, when a National Academy of Sciences Institute of Medicine committee identified 4000 IU/day of vitamin D as safe for every day use by adults and children nine years and older, with intakes in the range of 1000-3000 IU/day for infants and children through age eight years old.

While the IOM committee states that 4000 IU/day is a safe dosage, the recommended minimum daily intake is only 600 IU/day.

"Now that the results of this study are in, it will become common for almost every adult to take 4000 IU/day," Garland said. "This is comfortably under the 10,000 IU/day that the IOM Committee Report considers as the lower limit of risk, and the benefits are substantial." He added that people who may have contraindications should discuss their vitamin D needs with their family doctor.

"Now is the time for virtually everyone to take more vitamin D to help prevent some major types of cancer, several other serious illnesses, and fractures," said Heaney.

Other co-authors of the article were Leo Baggerly, PhD, and Christine French.

More facts are available from Anticancer Research: [www.GrassrootsHealth.net](http://www.GrassrootsHealth.net); and the National Academy of Sciences -- Institute of Medicine: [www.iom.edu/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx](http://www.iom.edu/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx)

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**Journal Reference**:

1. Cedric F. Garland, Christine B. French, Leo L. Baggerly, Robert P. Heaney. **Vitamin D Supplement Doses and Serum 25-Hydroxyvitamin D in the Range Associated with Cancer Prevention**. *Anticancer Research*, 2011; 31: 607-612 [[link](http://www.iiar-anticancer.org/openAR/journals/index.php/anticancer/article/view/215)]