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## Researchers who touted high **vitamin D** doses shut out of panel

Some of the most sensational health claims ever advanced about a nutrient have recently been made for vitamin D. Not having enough of the sunshine vitamin has been linked to a slew of chronic ailments, including cancer, heart disease and diabetes.

Now, the purported benefits of taking extra vitamin D are about to receive high-level scientific scrutiny through a review conducted at the behest of the Canadian and U.S. governments. But the effort is already mired in controversy.

The panel selected to analyze the health claims is being criticized for not including the medical researchers whose work prompted intense scientific interest in the nutrient in the first place.

"If you were publicly in favour of vitamin D, you were not included, and I find that outrageous," said Reinhold Vieth, a professor in the department of nutritional sciences at the University of Toronto, and one of Canada's leading experts on the nutrient.

The composition of the panel, which had its first meeting last week in Washington and is chaired by an authority on vitamin A, has prompted concerns that it may not settle the contentious question of whether current vitamin D recommendations need to be revised upward.

Health Canada and U.S. health authorities call for taking 200 to 600 international units a day, depending on age. The levels were set mainly for the prevention of childhood rickets, a bone disease.

These levels are the reason typical multivitamins contain only 400 IU and fortified foods, such as milk, contain 100 IU per cup. Since these intake amounts were set in 1997, there has been a flurry of research questioning their adequacy.

Many of the scientists conducting studies that found benefits from having more vitamin D, including Dr. Vieth, have publicly asserted that the current recommendations are woefully inadequate and that 2,000 IU daily or more may be needed for optimal health. The Canadian Cancer Society has also recommended taking more - 1,000 IU daily - as a possible cancer-prevention step.

Dr. Vieth proposed six top vitamin D experts for the panel, but they were all rejected. They included Cedric Garland of the University of California, San Diego, one of the scientists who discovered a link between low vitamin D levels and colon cancer incidence, and Joan Lappe, a researcher at Creighton University who co-authored a study in 2007 that found women taking 1,100 IU a day as well as calcium supplements had a 60-per-cent reduction in cancer

incidence. Dr. Vieth says he has "total respect" for those selected to serve on the panel, but adds that as a group they do not represent the full scope of scientific expertise available. The panel was assembled by the Washington-based Institute of Medicine after it solicited names of possible participants from the two governments and the research community. Health Canada and the U.S. government are paying for the panel, which also did the 1997 review, but the institute is conducting the work on an arms-length basis.

Christine Taylor, the institute's spokesperson for the vitamin D panel, denied that medical researchers who have publicly criticized current recommendations were excluded. "Certainly not," she said. "That would not have been a consideration at all."

She said the 13 experts chosen to sit on the panel were picked because they had expertise in such areas as bone metabolism, cancer and calcium levels, and she pledged that the panel would conduct a thorough review of claims about the vitamin.

Health Canada, in response to e-mailed questions from The Globe and Mail, said it submitted names for the panel but wouldn't identify them. Two Canadians were selected: Glenville Jones, a biochemist at Queen's University and an expert on the hormonally active form of vitamin D; and Christopher Kovacs of Memorial University, an authority on early-life bone development and calcium, which the panel will also study. In an interview, Dr. Jones says he believes there needs to be a broader appreciation for the role of vitamin D in promoting good health, and he personally is taking more of it than Health Canada recommends, although he declined to reveal the amount.

Some of the researchers who have been experimenting with higher doses of the vitamin predicted the panel's work will be disregarded if it doesn't revise current intake recommendations. "People will simply not pay attention to what they say," says Bruce Hollis, a professor at the Medical University of South Carolina who has found that lactating women need up to 6,000 IU a day to ensure their babies receive enough of the vitamin in mother's milk. The panel is expected to issue its results next year.

#### The sun connection

Vitamin D is causing a buzz because of a theory advanced by some researchers that people living in high-latitude countries, such as Canada, are chronically short of it because of where they live.

Most of the vitamin in our bodies is made when naked skin is exposed to strong summer sunshine; hence the reason Vitamin D is dubbed the sunshine vitamin. In Canada, sunlight is too feeble to make the nutrient this way for about half the year.

Humans evolved near the sunlight-rich equator and were never meant to have the seasonal low levels common to Northern peoples, according to vitamin D advocates.

People with dark skin living in Northern latitudes are at an extra disadvantage, they say. A person with white skin living in Canada and clad only in a bathing suit makes about 10,000 IU of vitamin D when exposed for 15 to 20 minutes to noon-time sunlight in the middle of July. A black person takes four or five times longer to make the same amount because pigment in their skin inhibits vitamin D production.

Researchers studying disease incidence have found that people with the lowest levels of Vitamin D in their blood seem to be at an increased risk for cancer, multiple sclerosis, heart disease and diabetes.