The IOM-Report about Vitamin D
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1) a journalistic report
2) the up to date comment of John Cannell, www.vitamindcouncil.org

1) journalistic comment

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The Vitamin D Team

Public Advice International Foundation

Vitamin D News Extra – Institute of Medicine (IOM) Report on Vitamin D

Dear All,

As mentioned in last month's newsletter, today the US Institute of Medicine (IoM) has released its report on new recommendations for Dietary Reference Intakes (DRIs) for Calcium and Vitamin D. Please find below the official press release announcing the IoM's findings. A summary of the report is available here , and the full report is available here . There will be a press conference on the release of the report this afternoon (16.00 Central European Time), for which you can still register here .

IOM Report Sets New Dietary Intake Levels for Calcium and Vitamin D To Maintain Health and Avoid Risks Associated With Excess

WASHINGTON — Most Americans and Canadians up to age 70 need no more than 600

international units (IUs) of vitamin D per day to maintain health, and those 71 and older may need as much as 800 IUs, says a new report from the Institute of Medicine. The amount of calcium needed ranges, based on age, from 700 to 1,300 milligrams per day, according to the report, which updates the nutritional reference values known as Dietary Reference Intakes (DRIs) for these interrelated nutrients.

The report's recommendations take into account nearly 1,000 published studies as well as testimony from scientists and stakeholders. A large amount of evidence, which formed the basis of the new intake values, confirms the roles of calcium and vitamin D in promoting skeletal growth and maintenance and the amounts needed to avoid poor bone health. The committee that wrote the report also reviewed hundreds of studies and reports on other possible health effects of vitamin D, such as protection against cancer, heart disease, autoimmune diseases, and diabetes. While these studies point to possibilities that warrant further investigation, they have yielded conflicting and mixed results and do not offer the evidence needed to confirm that vitamin D has these effects. Rigorous trials that yield consistent results are vital for reaching conclusions, as past experiences have shown. Vitamin E, for example, was believed to protect against heart disease before further studies disproved it.

"There is abundant science to confidently state how much vitamin D and calcium people need," said committee chair Catharine Ross, professor and Dorothy Foehr Huck Chair, department of nutritional sciences, Pennsylvania State University, University Park. "We scrutinized the evidence, looking for indications of beneficial effects at all levels of intake. Amounts higher than those specified in this report are not necessary to maintain bone health."

The science on calcium's role in bone health shows that 700 milligrams per day meets the needs of almost all children ages 1 through 3, and 1,000 milligrams daily is appropriate for almost all children ages 4 through 8. Adolescents ages 9 through 18 require no more than 1,300 milligrams per day. For practically all adults ages 19 through 50 and for men until age 71, 1,000 milligrams covers daily calcium needs. Women starting at age 51 and both men and women age 71 and older need no more than 1,200 milligrams per day.

As for vitamin D, 600 IUs daily meets the needs of almost everyone in the United States and Canada, although people 71 and older may require as much as 800 IUs per day because of potential physical and behavioral changes related to aging.

The majority of Americans and Canadians are getting enough vitamin D and calcium, the committee determined from reviewing national surveys of blood levels. Some adolescent girls may not get quite enough calcium, and there is a greater chance that elderly individuals may fall short of the necessary amounts of calcium and vitamin D. These individuals should increase their intake of foods containing these nutrients and possibly take a supplement.

Confusion about the amount of vitamin D necessary to ward off deficiency has arisen in recent years as tests that measure levels in patients' blood have become widely used. The measurements of sufficiency and deficiency — the cutpoints — that clinical laboratories use to report test results have not been based on rigorous scientific studies and are not standardized. This lack of agreement means the same individual could be declared deficient or sufficient depending on which laboratory reads the test. There may be an overestimation of the number of people with vitamin D deficiency because many labs appear to be using cutpoints that are higher than the evidence indicates are appropriate. Based on available data, almost all individuals get sufficient vitamin D when their blood levels are at or above 20 nanograms per milliliter as it is measured in America, or 50 nanomoles per liter as measured in Canada.

Although sunlight triggers the natural production of vitamin D in skin and contributes to people's vitamin D levels, individuals' sun exposure varies greatly and many people are told to minimize their exposure, so the committee assumed minimal sun exposure to establish the DRIs. The new intake levels for vitamin D cover the needs of individuals who get little sun.

Greater amounts of food fortification and rising rates of supplement use have increased the chances that people consume high amounts of these nutrients. Getting too much calcium from dietary supplements has been associated with kidney stones, while excessive vitamin D can damage the kidneys and heart. Evidence about other possible risks associated with routine vitamin D supplementation is still tentative, and most studies have focused on very high doses taken short term rather than on routine, long-term consumption of large amounts. However, some signals suggest there are greater risks of death and chronic disease associated with long-term high vitamin D intake, which informed the committee's conclusions about levels that consumers should not exceed.

Upper intake levels represent the upper safe boundary and should not be misunderstood as amounts people need or should strive to consume. The upper intake levels for vitamin D are 2,500 IUs per day for children ages 1 through 3; 3,000 IUs daily for children 4 through 8 years old; and 4,000 IUs daily for all others. The upper intake levels for calcium are 2,500 milligrams per day from age 1 through 8; 3,000 milligrams daily from age 9 through 18; 2,500 milligrams daily from age 19 through 50; and 2,000 milligrams per day for all other age groups.

"While it is too early to make definitive statements about the risks associated with routine high doses of vitamin D and calcium, people don't need more than the amounts established in this report," Ross said. "Past cases such as hormone replacement therapy and high doses of beta carotene remind us that some therapies that seemed to show promise for treating or preventing health problems ultimately did not work out and even caused harm. This is why it is appropriate to approach emerging evidence about an intervention cautiously, but with an open mind."

The new DRIs are based on much more information and higher-quality study results than were available when the DRIs for these nutrients were first set in 1997. At that time, limitations in the evidence resulted in intake levels called Adequate Intakes, which are rougher estimations of people's requirements than the new values. The old and new DRIs reflect different calculations and are not directly comparable.

The study was sponsored by the U.S. Department of Health and Human Services, U.S. Department of Agriculture, U.S. Department of Defense, and Health Canada. Established in 1970 under the charter of the National Academy of Sciences, the Institute of Medicine provides independent, objective, evidence-based advice to policymakers, health professionals, the private sector, and the public. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council make up the National Academies. For more information, visit http://national-academies.org . A committee roster follows.

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2) Contra IOM - John Cannell writes against the nonsense of the IOM

Today, the Food and Nutrition Board has Failed Millions

SAN LUIS OBISPO, Calif., Dec. 1, 2010 /PRNewswire-USNewswire/ -- The following was released today by the Vitamin D Council:

After 13 years of silence, the quasi governmental agency, the Institute of Medicine's (IOM) Food and Nutrition Board (FNB), yesterday recommended that a three - pound premature infant can take virtually the same amount of vitamin D as a 300 pound pregnant woman. While that 400 IU/day dose is close to adequate for infants, 600 IU/day in pregnant women will do nothing to help the three childhood epidemics most closely associated with gestational and early childhood vitamin D deficiencies: asthma, auto-immune disorders, and, as recently reported in the largest pediatric journal in the world, autism (1). Professor Bruce Hollis of the Medical University of South Carolina has shown pregnant and lactating women need at least 5,000 IU/day, not 600.

The FNB also reported that vitamin D toxicity might occur at an intake of 10,000 IU/day (250 micrograms), although they could produce no reproducible evidence that 10,000 IU/day has ever caused toxicity in humans and only one poorly conducted study indicating 20,000 IU/day may cause mild elevations in serum calcium but not clinical toxicity.

Viewed with different measure, this FNB report recommends that an infant should take 10 micrograms/day (400 IU) and the pregnant women 15 micrograms/day (600 IU). As a single 30 minutes dose of summer sunshine gives adults more than 10,000 IU (250 micrograms), the FNB is apparently also warning that natural vitamin D input – as occurred from the sun before the widespread use of sunscreen – is dangerous. That is, the FNB is implying that God does not know what she is doing.

Disturbingly, this FNB committee focused on bone health, just like they did 14 years ago. They ignored the thousands of studies from the last ten years that showed higher doses of vitamin D helps: heart health, brain health, breast health, prostate health, pancreatic health, muscle health, nerve health, eye health, immune health, colon health, liver health, mood health, skin health, and especially fetal health. Tens of millions of pregnant women and their breast-feeding infants are severely vitamin D deficient, resulting in a great increase in the medieval disease, rickets. The FNB report seems to reason that if so many pregnant women have low vitamin D blood levels then it must be OK because such low levels are so common. However, such circular logic simply represents the cave man existence of most modern day pregnant women.

Hence, if you want to optimize your vitamin D levels – not just optimize the bone effect – supplementing is crucial. But it is almost impossible to significantly raise your vitamin D levels when supplementing at only 600 IU/day (15 micrograms). Pregnant women taking 400 IU/day have the same blood levels as pregnant women not taking vitamin D; that is, 400 IU is a meaninglessly small dose for pregnant women. Even taking 2,000 IU/day of vitamin D will only increase the vitamin D levels of most pregnant women by about 10 points, depending mainly on their weight. Professor Bruce Hollis has shown that 2,000 IU/day does not raise vitamin D to

healthy or natural levels in either pregnant or lactating women. Therefore supplementing with higher amounts -- like 5000 IU/day -- is crucial for those women who want their fetus to enjoy optimal vitamin D levels, and the future health benefits that go along with it.

For example, taking only two of the hundreds of recently published studies, Professor Urashima and colleagues in Japan gave 1,200 IU/day of vitamin D3 for six months to Japanese 10 year-olds in a randomized controlled trial. They found vitamin D dramatically reduced the incidence of influenza A as well as the episodes of asthma attacks in the treated kids while the placebo group was not so fortunate. If Dr. Urashima had followed the newest FNB recommendations, it is unlikely that 400 IU/day treatment arm would have done much of anything and some of the treated young teenagers may have come to serious harm without the vitamin D. Likewise, a randomized controlled prevention trial of adults by Professor Joan Lappe and colleagues at Creighton University, which showed dramatic improvements in the health of internal organs, used more than twice the FNB's new adult recommendations.

Finally, the FNB committee consulted with 14 vitamin D experts and – after reading these 14 different reports – the FNB decided to suppress their reports. Many of these 14 consultants are either famous vitamin D researchers, like Professor Robert Heaney at Creighton, or in the case of Professor Walter Willett at Harvard, the single best-known nutritionist in the world. So, the FNB will not tell us what Professors Heaney and Willett thought of their new report? Why not? Yesterday, the Vitamin D Council directed our attorney to file a federal Freedom of Information (FOI) request to the IOM's FNB for the release of these 14 reports.

I, my family, most of my friends, hundreds of patients, and thousands of readers of the Vitamin D Council newsletter, have been taking 5,000 IU/day for up to eight years. Not only have they reported no significant side-effects, indeed, they have reported greatly improved health in multiple organ systems. My advice: especially for pregnant women, continue taking 5,000 IU/day until your (OH)D] is between 50 ng/ml and 80 ng/ml (the vitamin D blood levels obtained by humans who live and work in the sun and the mid-point of the current reference ranges at all American laboratories). Gestational vitamin D deficiency is not only associated with rickets, but a significantly increased risk of neonatal pneumonia (2), a doubled risk for preeclampsia (3), a tripled risk for gestational diabetes (4), and a quadrupled risk for primary cesarean section (5).

Yesterday, the FNB failed millions of pregnant women whose as yet unborn babies will pay the price. Let us hope the FNB will comply with the spirit of "transparency" by quickly responding to our freedom of Information requests.

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(1) Cannell JJ.. On the aetiology of autism. Acta Paediatr. 2010 Aug;99(8):1128-30. Epub 2010 May 19.

(2) Karatekin G, Kaya A, Salihoglu O, Balci H, Nuhoglu A. Association of subclinical vitamin D deficiency in newborns with acute lower respiratory infection and their mothers. Eur J Clin Nutr. 2009;63(4):473-7.

(3) Bodnar LM, Catov JM, Simhan HN, Holick MF, Powers RW, Roberts JM. Maternal vitamin D deficiency increases the risk of preeclampsia. J Clin Endocrinol Metab. 2007;92(9):3517-22.

(4) Zhang C, Qiu C, Hu FB, David RM, van Dam RM, Bralley A, Williams MA. Maternal plasma 25-hydroxyvitamin D concentrations and the risk for gestational diabetes mellitus. PLoS One. 2008;3(11):e3753.

(5) Merewood A, Mehta SD, Chen TC, Bauchner H, Holick MF. Association between vitamin D deficiency and primary cesarean section. J Clin Endocrinol Metab. 2009;94(3):940-5.

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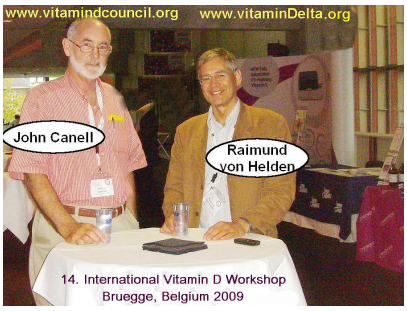
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