

The Institute of Medicine adds to Vitamin D Controversy

By Ann Gerhardt, MD

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In response to all of the new information and hype about vitamin D, the U.S. and Canadian governments asked the Institute of Medicine (IOM) to assess the data and make recommendations for daily intake. They concluded that “rigorous” testing substantiates only the importance of vitamin D for bone. They felt that studies addressing other possible benefits yielded “often mixed and inconclusive results and could not be considered reliable”.

Vitamin D researchers are disappointed in that the IOM seemed to discount a huge volume of research by some of the world’s eminent calcium/vitamin D scientists. Robert Heaney, MD from Creighton University, the guy that I’ve always looked to for the last word on calcium and vitamin D, was quoted as saying “I don’t think this does anything to create confidence in IOM recommendations.” He and others were asked to review it, but he “certainly” does “not approve of this report”.

The problem is that **the IOM was ultra-conservative** in their assessment of the literature. That’s what the IOM is supposed to do – consider as valid only large, blinded and controlled intervention trials. Those take time and money, and the only such vitamin D trials completed so far have concerned bone health.

Most of the newer vitamin D work concerning other disease processes is based on epidemiological inference, small trials of vitamin D supplements and test tube and animal data. My review in the August DrG’sMediSense issue summarizes what has been published, acknowledging the “soft” nature of some of the data. Large intervention trials have yet to be completed. But there is a strong consensus at vitamin D conferences and in the literature that vitamin D influences health in many more ways than just its effect on bone.

As with most bursts of enthusiastic research, the final “truth” will lie somewhere between the zealots and the naysayers. The same has been true for cholesterol and blood sugar. What was originally considered

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“normal” was found to be way too high for optimal health.

In its report the IOM did revise upwards, by 300%, the Recommended Dietary Allowances (RDA) for vitamin D for non-elderly adults. They set the Vitamin D RDA at 600 IUs per day, except for those older than 70 years, who should consume 800 IUs per day. They doubled the upper limit of tolerable intake, from 2000 IU to 4000 IUs per day, referencing kidney and tissue damage that occurs at an intake of about 10,000 IUs per day.

The IOM recognizes that most people do not consume 600 IUs per day, but felt that people were achieving adequate blood levels, above a 20 ng/ml threshold, to promote optimal bone health. To me, this is their most disappointing conclusion. Study after study confirms that PTH, the hormone that leaches calcium out of bone in order to keep blood calcium levels normal, is not optimally suppressed until vitamin D levels exceed at least 30 ng/ml. Some of the best work puts that level at approximately 35 ng/ml.

Should you have your vitamin D levels tested? Here’s a suggestion: First try one of these options (or a combination): 1) Become a sun-junky and risk skin cancer; 2) Drink a ton of fortified milk (currently at 100 IU vitamin D per 8 oz.) and eat fatty fish; or 3) Take a supplement providing 600-2000 IU vitamin D per day (you pick the dose, depending on your personality and presumed risk).

Second, after a few months of doing that, if you are at risk for osteoporosis, have any disorder that affects absorption or causes malnutrition, or you are one of the worried well, have a vitamin D level checked. Adjust the dose of your treatment choice according to the result, then continue it forever.

Third, go outside and do some weight-bearing exercise, which will help prevent chronic disease as much or more than will supplements.¶