"Dietary Reference Intakes for Calcium and Vitamin D" Analysis of the Institute of Medicine (IOM) Findings and Recommendations

A careful study of the Institute of Medicine (IOM) "Dietary Reference Intakes for Calcium and Vitamin D" (November 2010 and revised as of March 2011) at: <u>http://www.iom.edu/~/media/Files/Report%20Files/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D/Vitamin%20D%20and%20Calcium%202010%20Report%20Brief.pdf</u>

will reveal the following (I have lifted lines verbatim from the IOM document):

1. IOM does not recommend the use of vitamin D for the treatment of cancer or any other disease other than for improving bone health.

2. There is emerging evidence that too much of these nutrients may be harmful.

3. Higher levels of both nutrients have not been shown to confer greater benefits, and in fact, they have been linked to other health problems, challenging the concept that "more is better."

4. The committee assumed minimal sun exposure when establishing the DRIs for vitamin D, and it determined that 600 International Units (IUs) of vitamin D per day meets the needs of almost everyone in the United States and Canada.

5. Data from these surveys show that average blood levels of vitamin D are above the 20 nanograms per milliliter that the IOM committee found to be the level that is needed for good bone health for practically all individuals.

6. Sun exposure currently contributes meaningful amounts of vitamin D to North Americans.

7. The upper level (UL) intakes set by the committee for both calcium (at 2500 mg) and vitamin D (at 4000 IUs) represent the safe boundary at the high end of the scale and should not be misunderstood as amounts people need or should strive to consume. While these values vary somewhat by age, as shown in the table, the committee concludes that once intakes of vitamin D surpass 4,000 IUs per day, the risk for harm begins to increase. Once intakes surpass 2,000 milligrams per day for calcium, the risk for harm also increases.

8. As North Americans take more supplements and eat more of foods that have been fortified with vitamin D and calcium, it becomes more likely that people consume high amounts of these nutrients. Kidney stones have been associated with taking too much calcium from dietary supplements. Very high levels of vitamin D (above 10,000 IUs per day) are known to cause kidney and tissue damage. Strong evidence about possible risks for daily vitamin D at lower levels of intake is limited, but some preliminary studies offer tentative signals about adverse health effects. (This is now confirmed by the USPSTF in its draft recommendations of June 2012).

9. Conclusion

Scientific evidence indicates that calcium and vitamin D play key roles in bone health. The current evidence, however, does not support other benefits for vitamin D or calcium intake. More targeted research should continue. Higher levels have not been shown to confer greater benefits, and in fact, they have been linked to other health problems, challenging the concept that "more is better."

In short, IOM (also confirmed by the recent USPSTF findings) does not recommend the use of high dose vitamin D therapy for cancer prevention or treatment and does point out the detrimental effects of high dose vitamin D on the human body. IOM does not support the idea of using nutrients like calcium, vitamin D or as a matter of fact any other including vitamin K as therapeutic drugs. IOM recommend their use only to supplement natural sources of the same from sunshine, diet (including fortified foods), etc. and to use them when really found necessary and not routinely as a life style. This is the IOM concept.

The concept of Upper Limit (4,000 IUs for vitamin D or 2,500 mg for calcium) has been introduced to indicate a safe therapeutic dose to be administered in case of severe deficiency for a short period while deficiency lasts and no more. Such high doses should not be continued once the state of deficiency has been removed and the serum vitamin D level stabilizes around 20 ng/mL, which level is found satisfactory for bone health. Once this level has been reached, IOM recommends people to revert back to a Recommended Dietary Allowance (RDA) of 600 IUs which includes exposure to sunlight, fortified foods and supplements when necessary.

The foundation of nutrition is the digestive system. This has to be set at peak performance and efficiency before contemplating nutritional supplements. If a state of deficiency exists it automatically means that your digestive system needed a "tune up" long back. This includes the reseeding to the digestive tract with probiotics (healthy bacteria). It is this healthy bacterial that produces vitamin K. The human body should normally need nutritional supplements only of those nutrients that it does not know how to naturally produce internally. Again IOM philosophy does not support "more is better" or the use of nutritional supplements in place of natural sources or as life style drugs.

There are simpler methods of cancer prevention than the use of toxic vitamin D. For instance, it is well known that cancer cells multiply in an acidic pH. Maintaining the human body at a healthy alkaline level of 7.4 is a very safe and low risk method of cancer prevention. The use of sodium bicarbonate, which can be administered either orally, or intravenously (iv drip) or by injection can help change the pH of the blood and bring it back to a safe alkaline level of 7.4. Using mega-doses of nutrition in a totally unnatural manner is only opening the doors to the creation of some larger imbalance somewhere else in the body and is very risky and therefore not recommended.

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