

The IOM's report on calcium and vitamin D: Should it change the way you practice?

"Dietary Reference Intakes for Calcium and Vitamin D," the consensus report released by the Institute of Medicine (IOM) late last year (<http://www.iom.edu/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx>) generated a great deal of attention because it concluded that postmenopausal women taking supplements may be getting too much calcium, and that few people need to take vitamin D. These findings, among others, left many physicians wondering how, or if, the IOM's report should change the way they practice.

The Journal of Family Practice posed that question to **Susan Williams, MD, MS, FACN, FACP**, an internist at the Cleveland Clinic and a diplomate with the American Board of Physician Nutrition Specialists. Her response: The report probably shouldn't change the way you practice.

Here, Dr. Williams explains why.

Recommended daily allowances are guidelines. The new dietary reference intakes (DRIs), like the recommended daily allowances (RDAs) they replace, are quantitative estimates of nutrient intakes intended for planning and assessing diets of healthy populations. They were never intended to be applied "across the board," or used as a benchmark for the dietary adequacy of individual patients.

Testing is still advisable when there is clinical suspicion of a calcium or vitamin D deficiency. Because parathyroid hormone (PTH) compensates for calcium deficiency by drawing calcium from the bones, an adequate serum calcium level alone does not necessarily reflect an adequate calcium intake. In fact, a low serum calcium level is likely to be the result of abnormally low levels of vitamin D. Thus, the best way to get an accurate picture of a patient's status is to simultaneously test serum calcium, vitamin D, and PTH levels.

Some patients require considerably larger doses of vitamin D than the recommended quantities.^{1,2} This is particularly true for obese individuals and patients who have undergone bariatric surgery, for example.^{3,5} The safety of daily dosing of vitamin D in far greater quantities has been established,^{6,7} and the risks of chronic undersupplementation⁸⁻¹⁰ outweigh the risks associated with hypervitaminosis D, particularly when D3 (cholecalciferol) supplements are recommended.

Calcium supplementation is safe for postmenopausal women. Many older women have poor dietary intake of calcium, and again, the consequences of a deficiency are far greater than those associated with an excess. The risk of kidney stones in women taking calcium supplements can be averted by advising patients to take calcium citrate, which tends to neutralize urine and has better fractional uptake into the bone than calcium carbonate.

The IOM report serves to remind us that getting adequate calcium and vitamin D is important for everyone. Age and gender-specific recommendations should be emphasized, remembering that in general, the IOM's DRIs are likely to meet the actual needs of most healthy patients, but may well fall short in the presence of chronic illness and disease. Remember, too, that while we should always emphasize the importance of eating foods that are rich in calcium and vitamin D, patients' diets often fall short. In such cases—with the exception of patients with certain conditions (eg, renal failure or hyperparathyroidism)—supplements such as calcium citrate and vitamin D3 can be safely and confidently recommended.

Susan Williams, MD, MS, FACN, FACP, reported no potential conflict of interest relevant to this article.

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