Medical Xpress

Supplements of calcium and vitamin D may have too much for some older women

June 18 2014

Calcium and vitamin D are commonly recommended for older women, but the usual supplements may send calcium excretion and blood levels too high for some women, shows a new study published online today in *Menopause*, the journal of The North American Menopause Society.

This randomized, placebo-controlled trial included 163 older (ages 57 to 90) white women whose vitamin D levels were too low. The women took calcium citrate tablets to meet their recommended intake of 1,200 mg/day, and they took various doses of vitamin D, ranging from 400 to 4,800 IU/day. (The trial was limited by ethnicity because different ethnic groups metabolize calcium and vitamin D differently.)

About 9% of the women developed excess levels of calcium in their blood (hypercalcemia), and 31% developed excess levels in their urine (hypercalciuria), even though they were taking normal doses of the supplements and did not have hyperparathyroidism, a condition in which the body makes too much calcium-regulating hormone. These excess blood and urine calcium levels may lead to kidney stones or other problems.

The good news in this study is that the investigators found a way to predict which women were likely to develop these excess levels. The risk of developing excess urine calcium was 15 times higher for women who started out with a 24-hour urine calcium level above 132 mg than for women with lower levels. And the risk was 20 times higher for women who started with levels above 180 mg than for women with lower levels.

But every one-year increase in age reduced the risk by 10%.

"Even a modest calcium supplementation of 500 mg/day may be too high for some women," note the authors, who recommend measuring blood and urine calcium levels before women start using the supplements and again within three months.

"I would recommend that women determine how much calcium they typically get through their food sources before taking a hefty calcium supplement. They may not need as much as they think," says NAMS Executive Director Margery Gass, MD.

More information: The study, "Incidence of hypercalciuria and hypercalcemia during vitamin D and calcium supplementation in older women," was supported by a grant from the National Institute on Aging and the Office of Dietary Supplements and will be published in the November 2014 print edition of *Menopause*.

Provided by The North American Menopause Society