

Calcium and vitamin D improve cholesterol in postmenopausal women

March 5 2014

Calcium and vitamin D supplements after menopause can improve women's cholesterol profiles. And much of that effect is tied to raising vitamin D levels, finds a new study from the Women's Health Initiative (WHI) just published online in *Menopause*, the journal of The North American Menopause Society (NAMS).

Whether calcium or [vitamin D](#) can indeed improve [cholesterol levels](#) has been debated. And studies of women taking the combination could not separate the effects of calcium from those of vitamin D on cholesterol. But this study, led by NAMS Board of Trustees member Peter F. Schnatz, DO, NCMP, is helping to settle those questions because it looked both at how a calcium and vitamin D supplement changed cholesterol levels and how it affected [blood levels](#) of vitamin D in postmenopausal women.

Daily, the women in the WHI CaD trial took either a supplement containing 1,000 mg of calcium and 400 IU of vitamin D3 or a placebo. This analysis looked at the relationship between taking supplements and levels of vitamin D and cholesterol in some 600 of the women who had both their cholesterol levels and their vitamin D levels measured.

The women who took the supplement were more than twice as likely to have vitamin D levels of at least 30 ng/mL (normal according to the Institute of Medicine) as were the women who took the placebo. Supplement users also had low-density lipoprotein (LDL—the "bad" cholesterol) levels that were between 4 and 5 points lower. The

investigators discovered, in addition, that among supplement users, those with higher blood levels of vitamin D had higher levels of high-density lipoprotein (HDL—the "good" cholesterol) and lower levels of triglycerides (although for triglycerides to be lower, blood levels of vitamin D had to reach a threshold of about 15 ng/mL).

Taking the calcium and vitamin D supplements was especially helpful in raising vitamin D levels in women who were older, women who had a low intake, and women who had levels first measured in the winter—what you might expect. But lifestyle also made a difference. The supplements also did more to raise vitamin D levels in women who did not smoke and who drank less alcohol.

Whether these positive effects of supplemental calcium and vitamin D on cholesterol will translate into benefits such as lower rates of cardiovascular disease for women after menopause remains to be seen, but these results, said the authors, are a good reminder that women at higher risk for vitamin D deficiency should consider taking calcium and vitamin D.

"The results of this study should inspire even more [women](#) to be conscientious about their calcium and vitamin D intake—a simple and safe way to improve health. One action can lead to multiple benefits!" says NAMS Executive Director Margery Gass, MD.

The study, "Calcium/vitamin D supplementation, serum 25-hydroxyvitamin D concentrations, and cholesterol profiles in the Women's Health Initiative [calcium](#)/vitamin D randomized trial," will be published in the August 2014 print edition of *Menopause*.

Provided by The North American Menopause Society

Citation: Calcium and vitamin D improve cholesterol in postmenopausal women (2014, March 5)
retrieved 21 September 2024 from

<https://medicalxpress.com/news/2014-03-calcium-vitamin-d-cholesterol-postmenopausal.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.