

# Calcium and vitamin D help hormones help bones

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Should women take calcium and vitamin D supplements after menopause for bone health? Recommendations conflict, and opinions are strong. But now, an analysis from the major Women's Health Initiative (WHI) trial throws weight on the supplement side—at least for women taking hormones after menopause. The analysis was published online today in *Menopause*, the journal of The North American Menopause Society.

Among the nearly 30,000 [postmenopausal women](#) in the hormone trial, some 8,000 took supplemental calcium (1,000 mg/day) and vitamin D (400 mg/day), and some 8,000 took look-alike placebos. These women came from all the hormone groups in the study—those who took estrogen plus a [progestogen](#) (required for women with a uterus), those who took estrogen alone, and those who took the hormone look-alike placebos. The researchers looked at how the rates of [hip fracture](#) differed among women who took hormones and supplements, those who took hormones alone, and those who took neither.

The supplements and hormones had a [synergistic effect](#). Women using both therapies had much greater protection against hip fractures than with either therapy alone. Taking supplements alone wasn't significantly better than taking no supplements and no hormones. The benefit of hormone therapy was strong in women who had a total [calcium intake](#) (supplements plus diet) greater than 1,200 mg/day. Similarly, the benefit was strong in women who had higher intakes of vitamin D, but the individual effect of each one could not be determined because the two supplements were given together.

The effects translated into 11 hip fractures per 10,000 women per year among the women who took both hormones and supplements compared with 18 per 10,000 women per year among those who took hormones only, 25 per 10,000 women per year among those who took supplements

alone, and 22 among those who got neither therapy.

These results suggest, said the authors, that women taking postmenopausal hormone therapy should also take supplemental calcium and vitamin D. Although they couldn't specify how much, they noted that the benefits seem to increase with increasing total intake of calcium and vitamin D. The dose will depend on keeping side effects, such as constipation from too much calcium, to a minimum, they said.

That differs from the recommendation of the US Preventive Services Task Force (USPSTF), made earlier this year. USPSTF stated there was no basis for recommending calcium and [vitamin D](#) supplements to prevent fractures. But now, with a study this large, there may well be.

The study will be published in the February 2014 print edition of *Menopause*.

Provided by The North American Menopause Society

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