Thumbs Down on Calcium and Vitamin D to Prevent Hip Fracture

A recent *JAMA* meta-analysis of 33 clinical trials and 51,145 participants showed that calcium, vitamin D, or both affords no decreased risk of hip fractures compared with placebo or no treatment.

The authors performed a systematic literature review of data from published randomized trials, performed from July 16, 2012, to July 16, 2017. The primary outcome of interest was hip fracture and secondary outcomes were nonvertebral fracture, vertebral fracture, and total fracture.

Among 51,145 participants there was no significant association of calcium or vitamin D with risk of hip fracture compared with placebo or no treatment (calcium: RR 1.53, 95% CI 0.97-2.42; vitamin D: RR 1.21, 95% CI 0.99-1.47).

Similarly, there was no significant association of combined calcium and vitamin D with hip fracture compared with placebo or no treatment (RR 1.09, 95% CI 0.85-1.39). No significant associations were found between calcium, vitamin D, or combined calcium and vitamin D supplements and the incidence of nonvertebral, vertebral, or total fractures.

These findings do not support the routine use of these supplements in community-dwelling older people.

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