

Vitamin D supplementation does not reduce rate or severity of colds, study finds

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Although some data have suggested a possible inverse association between serum vitamin D levels and the incidence of upper respiratory tract infections (colds), participants in a randomized controlled trial who received a monthly dose of 100,000 IUs of vitamin D3 did not have a significantly reduced incidence or severity of colds, according to a study in the October 3 issue of *JAMA*.

The association of [vitamin D](#) insufficiency and susceptibility to viral [respiratory tract infections](#) has been unclear, according to background information in the article.

David R. Murdoch, M.D., of the University of Otago, Christchurch, New Zealand, and colleagues conducted a [randomized trial](#) to examine the effect of vitamin D supplementation on incidence and severity of upper respiratory tract infections (URTIs) in healthy adults. The study, conducted between February 2010 and November 2011, included 322 healthy adults in New Zealand. Participants were randomly assigned to receive an initial dose of 200,000 IU oral vitamin D3, then 200,000 IU one month later, then 100,000 IU monthly (n = 161), or placebo administered in an identical dosing regimen (n = 161), for a total of 18 months.

The average 25-hydroxyvitamin D (25-OHD) level of participants at the beginning of the study was 29 ng/mL. Vitamin D supplementation resulted in an increase in serum 25-OHD levels that was maintained at greater than 48 ng/mL throughout the study. There were 593 URTI

episodes in the vitamin D group and 611 in the [placebo group](#).

The researchers found that there was no statistically significant differences in the number of URTIs per participant (average, 3.7 per person in the vitamin D group and 3.8 per person in the placebo group), duration of symptoms per episode (average, 12 days in each group), number of days of missed work as a result of URTIs, or severity of URTI episodes.

"The main finding from this study is that a monthly dose of 100,000 IU of [vitamin D3](#) in healthy adults did not significantly reduce the incidence or severity of URTIs. This result remained unchanged when the analysis included winter season or baseline 25-OHD levels," the authors write. "Further research is required to clarify whether there is benefit from supplementation in other populations and with other dosing regimens."

Jeffrey A. Linder, M.D., M.P.H., of Brigham and Women's Hospital and Harvard Medical School, Boston, comments on the findings of this study (VIDARIS) in an accompanying editorial.

"The 2011 IOM report called for additional research to determine whether vitamin D therapy reduces the incidence of respiratory tract infections. The VIDARIS trial has rigorously addressed this question. Results suggest that vitamin D should join the therapies listed in the Cochrane reviews as being ineffective for preventing or treating [upper respiratory tract](#) infections in healthy adults."

More information:

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JAMA. 2012;308[13]:1375-1376.

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