

# High monthly vitamin D reduces respiratory infections, may increase falls for older adults

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In people over the age of 65, acute respiratory infections—such as the common cold, influenza, or pneumonia—can lead to potentially life-threatening complications.

Older adults who live in long-term care facilities are at especially high risk for these respiratory infections because their immune response tends to be weaker than those living in other settings. Strengthening older adults' immunity could be one way to reduce their chances of contracting respiratory infections.

Because vitamin D plays an important role in immunity, researchers decided to find out whether high monthly doses of vitamin D could lessen the number of respiratory infections experienced by older adults living in long-term care facilities. Their study was published in the *Journal of the American Geriatrics Society*.

Participants in the study included 107 adults, aged 60 and older, who lived in long-term [care facilities](#) in Colorado. Half the group members (also known as the "high-dose group") who were already taking zero to 1,000 International Units (or IUs, a measurement for vitamins) per day of vitamin D and got an additional dose of 100,000 IU of vitamin D once a month. The other half of the group (also known as the low-dose group) received a placebo (a pill that has no effect and includes no active medication) once a month depending on how much vitamin D they took daily or monthly.

Researchers counted the number of acute respiratory infections needing medical attention (common colds, sinusitis, middle ear infections, acute bronchitis, influenza, and pneumonia) that participants experienced during the study's 12-month follow-up period. The researchers also counted falls, fractures, kidney stones, hospitalizations, and deaths during the study period.

The researchers reported that people in the high-dose vitamin D group had 40 percent fewer respiratory infections during the 12-month follow-up period compared to people in the low-dose group. However, the people in the high-dose group had more than twice the number of falls compared to people in the low-dose group.

The researchers concluded that a monthly high dose of vitamin D reduced the number of respiratory infections in older adults but increased the number of falls they experienced.

There was no link to increases in bone fractures in the study group. More study is needed to see whether daily (rather than monthly) dosing with high levels of [vitamin D](#) could help protect [older adults](#) from respiratory infections and minimize the risk of falls, said the researchers.

This summary is from "High Dose Monthly Vitamin D for Prevention of Acute Respiratory Infection in Older Long-Term Care Residents: A Randomized Clinical Trial." It appears online ahead of print in the January 2017 issue of the *Journal of the American Geriatrics Society*. The study authors are Adit A. Ginde, MD, MPH; Patrick Blatchford, PhD; Keith Breese, MA; Lida Zarrabi, MPH; Sunny A. Linnebur, PharmD; Jeffrey I. Wallace, MD, MPH; and Robert S. Schwartz, MD.

**More information:** Adit A. Ginde et al, High-Dose Monthly Vitamin D for Prevention of Acute Respiratory Infection in Older Long-Term Care Residents: A Randomized Clinical Trial, *Journal of the American*

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