

Vitamin D supplements have little effect on risk of falls in older people

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A new meta-analysis, published in *The Lancet Diabetes & Endocrinology* journal, concludes that there is no evidence to suggest that vitamin D supplements prevent falls, and that ongoing trials to test this theory are unlikely to change this result.

The study, by Dr Mark Bolland of the University of Auckland, New Zealand, and colleagues, analysed findings from 20 [randomised controlled trials](#) which tested the potential of vitamin D [supplements](#) to reduce falls, in a total of 29535 people. The findings show that supplements do not reduce falls by 15% or more, meaning that the amount that vitamin D supplementation reduces [fall risk](#) at a population level is very low.

Falls can be devastating for older people, and strategies to reduce fall risk are urgently needed as the global population ages. The results of

trials that have investigated the ability of vitamin D to prevent falls—and those of previous meta-analyses—have been mixed. It is unclear how vitamin D supplements might prevent falls but, until now, there has been enough positive [evidence](#) to support its recommendation by some health organisations.

Bolland and colleagues' findings add to those of previous meta-analyses by also applying trial sequential analysis, which predicts the potential of future trials with a similar design to sway existing evidence. Their results suggest that trials in progress are unlikely to overturn the finding that vitamin D supplements do not appreciably reduce falls, and they conclude that there is insufficient evidence to support prescribing vitamin D to reduce falls.

However, the authors report that existing evidence does not show whether vitamin D might reduce falls in particularly vulnerable older people—ie, those who fall often. This is because most clinical [trials](#) report only the total number of falls in the study population, rather than the number of falls per person in the study.

According to Clifford Rosen of Maine Medical Research Institute, Scarborough, USA, and Christine Taylor of the National Institutes of Health, Bethesda, USA, both authors of a Comment linked to the study, "Whether a large trial is feasible in this vulnerable population remains to be established. Until then, we are left with uncertainty about the benefits of [vitamin](#) D supplementation for reduction in fall risk, particularly among vulnerable older people."

More information:

[http://www.thelancet.com/journals/landia/article/PIIS2213-8587\(14\)70068-3/abstract](http://www.thelancet.com/journals/landia/article/PIIS2213-8587(14)70068-3/abstract)

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