

Vitamin D deficiency associated with increased mortality risk

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A study of more than 300,000 adults in the United Kingdom has found support for a causal relationship between vitamin D deficiency and mortality. These findings suggest a need for public health strategies to maintain healthy levels of vitamin D in the population. The study is published in *Annals of Internal Medicine*.

Low vitamin D status has been linked to increased mortality, but mortality in the context of vitamin D deficiency remains unclear. Randomized controlled trials either fail to recruit people with severe deficiency or, because of ethical reasons, are prevented from doing so.

Researchers from the University of South Australia, Adelaide, South Australia, conducted a nonlinear mendelian randomization study of 307,601 participants in the U.K. Biobank to assess [genetic evidence](#) for the causal role of low vitamin D status in mortality. The authors evaluated measurements of participants' 25-hydroxyvitamin D (25-(OH) D) and other genetic data. They also recorded and analyzed both all-cause and cause-specific mortality data. Over a 14-year follow up period, the authors found that the risk for death decreased significantly with increased vitamin D concentrations, and the strongest effects were seen for persons in the severe deficiency range. They note that recent estimates for the prevalence of severe deficiency range from 5 to 50 percent of the population, with rates varying by geographic location and population characteristics.

According to the authors, their study affirms the potential for a notable effect on premature death and the continued need for efforts to abolish vitamin D deficiency.

More information: Joshua P. Sutherland et al, Vitamin D Deficiency Increases Mortality Risk in the UK Biobank, *Annals of Internal Medicine* (2022). [DOI: 10.7326/M21-3324](https://doi.org/10.7326/M21-3324)

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