

# **Vitamin D supplementation may lower diabetes risk for the more than 10 million adults with prediabetes**

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A review of clinical trials has found that higher vitamin D intake was associated with a 15 percent decreased likelihood for developing type 2

diabetes in adults with prediabetes. The review is published in *Annals of Internal Medicine*.

Vitamin D is a fat-soluble [vitamin](#) available in or added to some foods, as a supplement, or produced by the body when ultraviolet rays from sunlight strike the skin. Vitamin D has many functions in the body, including a role in insulin secretion and glucose metabolism.

Observational studies have found an association between having a low level of vitamin D in the blood and high risk for developing diabetes.

Researchers from Tufts Medical Center conducted a systematic review and meta-analysis of three clinical trials comparing vitamin D supplement impacts on [diabetes risk](#). The authors found that over a three-year follow-up period, new-onset diabetes occurred in 22.7 percent of adults who received vitamin D and 25 percent of those who received placebo, which is a 15 percent relative reduction in risk. According to the authors, extrapolating their findings to the more than 374 million adults worldwide who have prediabetes suggests that inexpensive vitamin D supplementation could delay the development of diabetes in more than 10 million people.

In an accompanying editorial, authors from University College Dublin and Food Safety Authority of Ireland, highlight that previous data have demonstrated significant adverse effects for high vitamin D intake. They argue that professional societies promoting vitamin D therapy have an obligation to warn physicians about both required vitamin D intake and safe limits. They advise that this very-high-dose vitamin D therapy might prevent type 2 diabetes in some patients but may also cause harm.

**More information:** Vitamin D and Risk for Type 2 Diabetes in People With Prediabetes, *Annals of Internal Medicine* (2023). [DOI: 10.7326/M22-3018](#)

Malachi J. McKenna et al, Preventing Type 2 Diabetes With Vitamin D: Therapy Versus Supplementation, *Annals of Internal Medicine* (2023)  
[DOI: 10.7326/M23-0220](https://doi.org/10.7326/M23-0220). [www.acpjournals.org/doi/10.7326/M23-0220](https://www.acpjournals.org/doi/10.7326/M23-0220)

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