

# Study: Vitamin D deficiency may raise risk of getting COVID-19

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In a retrospective study of patients tested for COVID-19, researchers at the University of Chicago Medicine found an association between vitamin D deficiency and the likelihood of becoming infected with the coronavirus.

"Vitamin D is important to the function of the immune system and vitamin D supplements have previously been shown to lower the risk of viral respiratory tract infections," said David Meltzer, MD, Ph.D., Chief of Hospital Medicine at UChicago Medicine and lead author of the study. "Our [statistical analysis](#) suggests this may be true for the COVID-19 infection."

The research team looked at 489 UChicago Medicine patients whose vitamin D level was measured within a year before being tested for COVID-19. Patients who had vitamin D deficiency (

The study, [Association of Vitamin D Status and Other Clinical Characteristics With COVID-19 Test Results](#), was published Sept. 3 in *JAMA Network Open*. Findings were previously reported on [medRxiv](#), a preprint server for the [health sciences](#).

Half of Americans are deficient in Vitamin D, with much higher rates seen in African Americans, Hispanics and individuals living in areas like Chicago where it is difficult to get enough sun exposure in winter.

"Understanding whether treating Vitamin D deficiency changes COVID-19 risk could be of great importance locally, nationally and globally," Meltzer said. "Vitamin D is inexpensive, generally very safe to take, and can be widely scaled."

Meltzer and his team emphasize the importance of experimental studies to determine whether vitamin D supplementation can reduce the risk, and potentially severity, of COVID-19. They also highlight the need for studies of what strategies for vitamin D supplementation may be most appropriate in specific populations. They have initiated several clinical trials at UChicago Medicine and with partners locally.

**More information:** *JAMA Network Open* (2020). DOI: [10.1001/jamanetworkopen.2020.19722](https://doi.org/10.1001/jamanetworkopen.2020.19722)

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