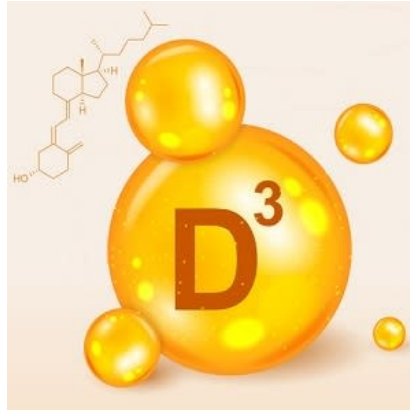




## Effect of Vitamin D in Patients with Moderate to Severe COVID-19



A clinical trial was conducted to evaluate the effect of a single high dose of vitamin D<sub>3</sub> on hospital length of stay among hospitalised patients with moderate to severe COVID-19.

Vitamin D is believed to enhance innate and adaptive immunity. A deficiency of vitamin D is known to be a potential risk for non-communicable and acute respiratory tract diseases, including viral infections. During the COVID-19 pandemic, it has been suggested that optimal levels of 25-hydroxyvitamin D could potentially have immunomodulatory and anti-inflammatory properties and may benefit patients with COVID-19. However, this is mere speculation and only partially supported by observational studies and findings from a small non-randomised trial.

This multi-centre, double-blind, randomised trial was conducted in two sites in Sao Paulo, Brazil. 240 hospitalised patients were included in the study. Patients were enrolled from June 2020 to August 2020 and were followed up till October 2020. All patients had a diagnosis of COVID-19 confirmed by PCR testing. Patients were randomly assigned to receive a single dose of 200,000 IU of vitamin D<sub>3</sub> or placebo.

The primary outcome of the study was length of hospital stay. Secondary outcomes included mortality during hospitalisation, the number of patients admitted to the ICU, the number of patients requiring mechanical ventilation, the duration of mechanical ventilation and serum levels of 25-hydroxyvitamin D, total calcium, creatinine, and C-reactive protein.

Findings show that a single high dose of vitamin D<sub>3</sub> did not significantly reduce hospital length of stay. There was also no significant difference in admission to the ICU or the need for mechanical ventilation. No severe adverse events were reported except for one patient who vomited after the administration of vitamin D<sub>3</sub>.

Findings from the study do not support the use of a high dose of vitamin D<sub>3</sub> for the treatment of moderate to severe COVID-19 in hospitalised patients

Overall, findings from the study do not support the use of a high dose of vitamin D<sub>3</sub> for the treatment of moderate to severe COVID-19 in hospitalised patients.

Source: [JAMA](#)

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