

Vitamin D Supplementation to Prevent Acute Respiratory Infections: A Systematic Review and Meta-analysis of Aggregate Data from Randomised Controlled Trials

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- Interest in the potential for vitamin D supplementation to reduce the risk of acute respiratory infections (ARIs) has increased since the emergence of the COVID-19 pandemic because of studies showing that vitamin D metabolites support innate immune responses to respiratory viruses.
- Meta-analysis of data from 25 randomised controlled trials (RCTs) of vitamin D supplementation for the prevention of acute respiratory infections (ARIs) revealed a protective effect.
- Findings suggest that the frequency, dose, and duration of vitamin D supplementation might be key determinants of its protective effects against ARIs.
- At daily dose equivalents of 400-1000 IU, for a duration of 12 months or less and to participants aged 1 to 16 years at enrolment, protective effects were observed.

Vitamin D supplementation was safe and overall reduced the risk of ARI compared with placebo .The vitamin D dosing regimen of most benefit was daily and used standard doses (400–1000 IU) for up to 12 months