

## **Randomized trial of vitamin D supplementation to prevent seasonal influenza A in schoolchildren**

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### KEY POINTS FROM THIS STUDY:

- 1) Prior to this study, no rigorously designed clinical trial had evaluated the relation between vitamin D and physician diagnosed seasonal influenza.
- 2) This study was a randomized, double-blind, placebo-controlled trial comparing vitamin D3 supplements (1200 IU/d) with placebo in schoolchildren.
- 3) The seasonal oscillation of flu may be related to serum vitamin D concentrations because serum vitamin D concentrations up-regulate innate immunity.
- 4) Serum concentrations of vitamin D decrease in winter by half of summer levels.
- 5) During a randomized controlled trial performed to determine whether vitamin D could prevent osteoporosis, cold and flu symptoms were reported 3 times less often in the vitamin D group than in the placebo group.
- 6) "In this randomized clinical trial, daily supplementation with 1200 IU vitamin D3 in school children between December and March showed a significant preventive effect against influenza A."
- 7) In this study, "vitamin D supplementation possibly enhanced innate immunity by up-regulating antimicrobial peptides, including defensin, and protected children from influenza A infection."
- 8) "Vitamin D may soften the clinical symptoms and signs of influenza by reducing cytokine secretion."
- 9) Taking vitamin D3 supplements for 1 y in a dose up to 2000 IU per day in schoolchildren has been shown to be safe. It takes 3 months to reach a steady state of vitamin D concentrations by supplementation.
- 10) "In this study, vitamin D3 significantly reduced the incidence of influenza A within 60 days."
- 11) "Asthma attacks were significantly suppressed by vitamin D3."

12) "In conclusion, our study suggests that vitamin D3 supplementation during the winter season may reduce the incidence of influenza A."

13) "Moreover, asthma attacks were also prevented by vitamin D3 supplementation."