

RE: Epidemic Influenza and Vitamin D**Epidemiology and Infection**
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KEY POINTS FROM DAN MURPHY

- 1) "There is an epidemic of vitamin D insufficiency in the United States, the public health impact of this observation could be great."
- 2) "The occurrence of the common cold and influenza shows clear seasonality. The cold and influenza season corresponds to the season of vitamin D insufficiency."
- 3) "The lack of vitamin D during the winter may be a 'seasonal stimulus' to the infectivity of the influenza virus."
- 4) "Vitamin D is produced in the skin when sunlight is absorbed. Thus, vitamin D levels, or serum 25-hydroxyvitamin D (25-OHD), fluctuate seasonally."
- 5) Vitamin D has important functions in the immune system, specifically the innate immune system.
- 6) Over a 3-year period, taking 800 IU of vitamin D3 reduced the incidence of colds and flus by 70%. Taking 2,000 IU of vitamin D3 reduced the incidence of colds and flus to nearly zero (only one case out of 104 users).
- 7) "Vitamin D supplementation, particularly at higher doses, may protect against the 'typical' winter cold and influenza."
- 8) "The physiological basis of the protective effect of vitamin D lies in its ability to stimulate innate immunity and to moderate inflammation."
- 9) "These reports provide a rationale for vitamin D supplementation in the prevention of colds and influenza."
- 10) Only vitamin D3 is bioactive; vitamin D2 (ergocalciferol) "is not vitamin D but a less potent vitamin D analogue that plays no role in normal human physiology."
- 11) "Physiological doses [800 – 2,000 IU / day] of vitamin D prevent many viral respiratory infections."
- 12) "It is also reasonable to postulate that pharmacological doses of vitamin D may be effective adjuvants in a breathtakingly large number of life-threatening infections."