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### **Hypervitaminosis D associated with drinking milk.**

[Jacobus CH](#), [Holick MF](#), [Shao Q](#), [Chen TC](#), [Holm IA](#), [Kolodny JM](#), [Fuleihan GE](#), [Seely EW](#).

Division of Endocrinology, Beth Israel Hospital, Boston, MA.

**BACKGROUND.** Vitamin D has been added to milk in the United States since the 1930s to prevent rickets. We report the unusual occurrence of eight cases of vitamin D intoxication that appear to have been caused by excessive vitamin D fortification of dairy milk. **METHODS.** Medical records were reviewed and a dietary questionnaire was sent to eight patients who had unexplained hypervitaminosis D. Vitamin D analyses with high-performance liquid chromatography were performed on samples of the patients' serum, the dairy milk they drank, and the vitamin D concentrate added to the milk. **RESULTS.** All eight patients drank milk produced by a local dairy in amounts ranging from 1/2 to 3 cups (118 to 710 ml) daily. All had elevated serum 25-hydroxyvitamin D concentrations (mean [ $\pm$  SD], 731  $\pm$  434 nmol per liter [293  $\pm$  174 ng per milliliter]). Six of the eight patients had elevated serum vitamin D<sub>3</sub> concentrations. Of the eight patients, seven had hypercalcemia and one had hypercalciuria but normocalcemia (mean serum calcium, 3.14  $\pm$  0.51 mmol per liter [12.6  $\pm$  2.1 mg per deciliter]). Analysis of the dairy's vitamin D-fortified milk revealed concentrations of vitamin D<sub>3</sub> (cholecalciferol) that ranged from undetectable to as high as 232,565 IU per quart (245,840 IU per liter). An analysis of the concentrate that was used to fortify the milk, labeled as containing vitamin D<sub>2</sub> (ergocalciferol), revealed that it contained vitamin D<sub>3</sub>. **CONCLUSIONS.** Hypervitaminosis D may result from drinking milk that is incorrectly and excessively fortified with vitamin D. Milk that is fortified with vitamin D must be carefully monitored.

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