

Letter to the Editor

SORBITOL AND VITAMIN B₁₂ ABSORPTION

Dear Sir:

In a recent issue of THE AMERICAN JOURNAL OF CLINICAL NUTRITION Schilling¹ commented editorially on the need for data showing the effects of D-sorbitol on vitamin B₁₂ absorption in patients unable to produce intrinsic factor. Such data have been obtained in patients with pernicious anemia at this institution, and recently reported.² D-sorbitol did not enhance vitamin B₁₂ absorption in these patients, either when given with 2 μ g of vitamin B₁₂ as previously reported,³ or with 30 μ g of the vitamin.

It was speculated that perhaps D-sorbitol worked by enhancing the action of intrinsic factor, and so the same patients were given a D-sorbitol-hog intrinsic factor concentrate-vitamin B₁₂ combination (using both 2 and 30 μ g amounts of the vitamin). The addition of D-sorbitol had absolutely no further enhancing action on vitamin B₁₂ absorption over the enhancement observed with hog intrinsic factor concentrate alone. Furthermore, D-sorbitol did not enhance vitamin B₁₂ uptake by everted sacs of rat small intestine,⁴ using an incubation system⁵ in which hog intrinsic factor concentrate produces marked enhancement of vitamin B₁₂ uptake.⁶ These findings offer strong indirect support for Schilling's suggestion that perhaps D-sorbitol stimulates gastric secretion

of intrinsic factor. They also provide a cogent argument against the use of D-sorbitol "to enhance vitamin B₁₂ absorption" in any patient who lacks intrinsic factor or in whom intrinsic factor is ineffective (i.e., sprue, etc.) at least until further studies completely clarify the role of this agent.

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