

Correspondence

Allergy risk of vitamin D supplements has been described in various settings

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To the Editor:

Litonjua and Weiss¹ highlight again the importance of vitamin supplements and allergic sensitization, although in a somewhat unexpected manner back to front of the original vitamin hypothesis.² Although describing correctly the T_H1 blocking activity of the main vitamin D metabolite 1,25-(OH)₂-D₃, they most likely misinterpret the recent increase of oral vitamin D supplementation that clearly follows “Western lifestyle” patterns. The vitamin hypothesis is not about solar exposure (which might indeed be low in some American communities) but about oral supplementation that might influence allergen presentation at the largest immunologic site of the body.

Certainly misquoted has been the study of Finnish newborns³ that described a positive (and not negative) association of regular vitamin D supplements and allergy. This study has been particularly important because the effect had been predicted in advance.² Together with other studies not mentioned in their review that are testing effects of different vitamin D preparations,^{4,5} cod liver oil,⁶ and supplemented margarine,⁷ the current picture of a sensitization risk caused by vitamin D supplements is rather clear. Even their own study results¹ are not contradictory because a reduced wheezing rate is an already expected effect of vitamin D supplementation.

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REFERENCES

1. Litonjua AA, Weiss ST. Is vitamin D deficiency to blame for the asthma epidemic? *J Allergy Clin Immunol* 2007;120:1031-5.
2. Wjst M, Dold S. Genes, factor X, and allergens: what causes allergic diseases? *Allergy* 1999;54:757-9.
3. Hyppönen E, Sovio U, Wjst M, Patel S, Pekkanen J, Hartikainen AL, et al. Vitamin D supplementation in infancy and the risk of allergies in adulthood: a birth cohort study. *Ann Am Acad Sci* 2004;1037:84-95.
4. Milner JD, Stein DM, McCarter R, Moon RY. Early infant multivitamin supplementation is associated with increased risk for food allergy and asthma. *Pediatrics* 2004;114:27-32.
5. Kull I, Bergström A, Melén E, Lilja G, van Hage M, Pershagen G, et al. Early-life supplementation of vitamins A and D, in water-soluble form or in peanut oil, and allergic diseases during childhood. *J Allergy Clin Immunol* 2006;118:1299-304.
6. Nja F, Nystad W, Lodrup Carlsen KC, Hetlevik O, Carlsen KH. Effects of early intake of fruit or vegetables in relation to later asthma and allergic sensitization in school-age children. *Acta Paediatr* 2005;94:147-54.
7. Chatzi L, Apostolaki G, Bibakis I, Skypala I, Bibaki-Liakou V, Tzanakis N, et al. Protective effect of fruits, vegetables and the Mediterranean diet on asthma and allergies among children in Crete. *Thorax* 2007;62:677-83.

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