

Dietary supplement use is associated with higher intakes of minerals from food sources^{1,2,3,4}

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Abstract

Background: Dietary supplement use is extensive in US adults. Some reports suggested that supplement users had higher nutrient intakes from the diet than did nonusers, but to our knowledge this finding has not been examined in nationally representative survey data.

Objective: In this analysis, we examined mineral intakes from the diet by supplement–use categories and how these supplements contributed to meeting or exceeding Dietary Reference Intakes for selected minerals.

Design: Data from adults (≥ 19 y of age; $n = 8860$) who participated in NHANES 2003–2006, a nationally representative, cross-sectional survey, were examined. Supplement use was defined as the participant's self-reported use of a supplement that contained one or more selected minerals.

Results: Dietary intakes of minerals from food sources were higher for magnesium, copper, potassium, and selenium in male supplement users than in nonusers. For women, dietary intakes of minerals from food sources were higher for users than for nonusers for each mineral examined except for selenium. In women, users of calcium-containing dietary supplements were much more likely to meet the Estimated Average Requirement (EAR) than were nonusers. Even after consideration of supplement use, $>14\%$ of adults had inadequate intakes for calcium and magnesium on the basis of the percentage of adults with usual intakes less than the EAR. The prevalence of adults who exceeded the tolerable upper intake level (UL) for calcium, zinc, iron, and magnesium was higher in users than in nonusers.

Conclusions: Individuals who used mineral-containing dietary supplements had higher mineral intakes from food sources in the diet than did nonusers. For all minerals examined, and particularly for calcium and magnesium in men and women and iron in women, supplement use decreased the prevalence of intake inadequacy for each respective mineral; however, supplements contributed to risk of potentially excessive intakes for calcium, iron, zinc, and magnesium.

Footnotes

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