

Health Notes by Evelyn Ames

Vitamin/Mineral Supplements: What was “good” yesterday may not be “good” today!

A recent report relating to the Iowa Women’s Health Study, published in the *Archives of Internal Medicine* (Vol. 171 No. 18, October 10, 2011) concluded that several commonly used vitamin and mineral supplements (in particular, iron, folic acid, vitamin B6, magnesium, zinc, copper, and multivitamins) were associated with an increased risk of earlier death in older women. The strongest association was with supplemental iron. In this study, calcium was associated with decreased risk. The study followed 38,722 older women (61.6 years at baseline) with self-reports of supplement use in 1986, 1997, and 2004.

Among the women in the study, “about 63 percent used supplements at the start of the study, but that number had grown to 85 percent by 2004” with the findings translating “to a 2.4 percent increase in absolute risk for multivitamin users, a 4 percent increase associated with vitamin B6, a 5.9 percent increase for folic acid, and increases of 3 to 4 percent in risk for those taking supplements of iron, folic acid, magnesium, and zinc” (*The New York Times*, Oct. 10/2011).

According to Mursu and colleagues (authors of the Iowa study) at the University of Eastern Finland, “little is known about the long-term effects of multivitamin use and less commonly used supplements, such as iron and other minerals” (*Arch of Intern Med*). The authors believe that “for all micronutrients, risks are associated with insufficient and too-large intake.” They state that “our study raises a concern regarding their long-term use.”

Bjelakovic and Gluud (invited commentary) in the October issue of *Arch Intern Med* stated “The use of multivitamins, vitamin B6, folic acid, magnesium, zinc, iron, and copper was individually statistically associated with increased risk of all-cause mortality when compared to nonuse. After adjustment for multiplicity, only multivitamins and copper retained the significant association. The use of calcium and vitamin D was associated with a decreased risk of all-cause mortality when compared to nonuse before and after adjustment for multiplicity.” They point out that the Iowa Women’s Health Study is observational. Other factors such as behavior, reportage, and general physical health cannot be excluded but “the study was large, well-designed, and well conducted.” Bjelakovic and Gluud state the paradigm “the more is better is wrong.” They also commented that Mursu and colleagues “results regarding calcium seem to contrast with those of a recent meta-analysis of randomized trials that observed that calcium supplementation is associated with an increased risk of myocardial infarction” in Finnish postmenopausal women using calcium supplements.

Both the study’s authors and the commentary authors note that dietary supplementation has shifted to promoting wellness and preventing disease and away from preventing deficiency. These researchers do not recommend the use of vitamin and mineral supplements as preventive measures, especially in well-nourished populations. “Older women (and perhaps older men) may benefit from vitamin D3 supplements, especially if they have insufficient vitamin D supply from the sun and from their diet.” The authors suggest further study on calcium supplements. Eat those fruits and vegetables! Maintain a well balanced diet!

Parker-Pope reported in *The New York Times* (Oct 11/2011) about the Selenium and Vitamin E Cancer Prevention Trial which followed use among 35,000 men, the purpose being to see if the risk of prostate cancer would be lowered. A longer term follow-up of the men “found that the vitamin users had a slightly higher risk (17%) of developing prostate cancer.” “The dose taken in the study was “200 micrograms of selenium and 400 international units of vitamin E. By comparison, most multivitamins contain about 50 micrograms of selenium and 30 to 200 international units of vitamin E.”

What may be included in multivitamins for 50 and older adults? The B vitamins: B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6, B7 (biotin), B12, and folic acid; vitamins A, D3, and K; magnesium, manganese, copper, iron, iodine, phosphate, potassium, nickel, chromium, choline, molybdenum, lycopene, chloride, boron, and selenium.

For explanations of use, effectiveness, deficiency, risks, and side effects, this web site is a start to finding available information: <http://www.nlm.nih.gov/medlineplus/druginfo/natural/313.html> Check for sites that are research-oriented rather than supplement-promotional advertisements. In addition, you may find viewing "Choosing Nutrient Dense Foods" of interest.
http://nihseniorhealth.gov/eatingwellasyougetolder/faq/video/ew2_na.html?intro=yes

New research information is suggesting that antioxidant supplementation (e.g., vitamin A, E, and beta-carotene) may interfere with the body's natural antioxidant physiology, leading to an increase in free radicals (unstable molecules). The supplementation-caused increase in the body may contribute various diseases such as cancers.

Consumers assume that dietary supplements, heavily advertised and found on the shelves in grocery stores, mini-marts, pharmacies, stand-alone supplements stores, etc., have been researched for safety and effectiveness and pose no health risks. But, manufacturers are not required to disclose to the Food and Drug Administration or to consumers any evidence they have that their products are safe or efficacious. It is buyer beware (caveat emptor)!