

Abstract

Am J Clin Nutr. 2010 Sep 22. [Epub ahead of print]

Multivitamin use and the risk of myocardial infarction: a population-based cohort of Swedish women.

Rautiainen S, Akesson A, Levitan EB, Morgenstern R, Mittleman MA, Wolk A.

Divisions of Nutritional Epidemiology and Biochemical Toxicology, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden.

BACKGROUND: Dietary supplements are widely used in industrialized countries.

OBJECTIVE: The objective was to examine the association between multivitamin use and myocardial infarction (MI) in a prospective, population-based cohort of women.

DESIGN: The study included 31,671 women with no history of cardiovascular disease (CVD) and 2262 women with a history of CVD aged 49-83 y from Sweden. Women completed a self-administered questionnaire in 1997 regarding dietary supplement use, diet, and lifestyle factors. Multivitamins were estimated to contain nutrients close to recommended daily allowances: vitamin A (0.9 mg), vitamin C (60 mg), vitamin D (5 µg), vitamin E (9 mg), thiamine (1.2 mg), riboflavin (1.4 mg), vitamin B-6 (1.8 mg), vitamin B-12 (3 µg), and folic acid (400 µg).

RESULTS: During an average of 10.2 y of follow-up, 932 MI cases were identified in the CVD-free group and 269 cases in the CVD group. In the CVD-free group, use of multivitamins only, compared with no use of supplements, was associated with a multivariable-adjusted hazard ratio (HR) of 0.73 (95% CI: 0.57, 0.93). The HR for multivitamin use together with other supplements was 0.70 (95% CI: 0.57, 0.87). The HR for use of supplements other than multivitamins was 0.93 (95% CI: 0.81, 1.08). The use of multivitamins for ≥5 y was associated with an HR of 0.59 (95% CI: 0.44, 0.80). In the CVD group, use of multivitamins alone or together with other supplements was not associated with MI.

CONCLUSIONS: The use of multivitamins was inversely associated with MI, especially long-term use among women with no CVD. Further prospective studies with detailed information on the content of preparations and the duration of use are needed to confirm or refute our findings.

PMID: 20861174

