

Postmenopausal women's intake of antioxidant vitamins and CHD

This study focuses on the role of dietary antioxidant vitamins in prevention of coronary heart disease (CHD) because it is known that oxidative modification of low-density lipoprotein cholesterol may promote atherosclerosis.

In 1986, a total of 34,486 postmenopausal women with no history of cardiovascular disease completed a questionnaire that assessed, among other factors, their intake of vitamins A, E, and C from food sources and supplements. During the 7-year follow-up ending in 1992, 242 of the women died of CHD.

Analyses adjusted for age and dietary energy intake showed what appeared to be an inverse association between vitamin E consumption and the risk of death from CHD. This association was particularly striking in the subgroup of 21,809 women who did not consume vitamin supplements. There was little evidence that the intake of vitamin E from supplements was associated with a decreased risk of death from CHD, but the effects of high-dose supplementation and the duration of supplement use could not be definitively addressed. Intake of vitamins A and C did not appear to be associated with the risk of death from CHD.

These results suggest that in postmenopausal women, the intake of vitamin E from food is inversely associated with the risk of death from CHD and that such women can lower the risk without using vitamin supplements. By contrast, the intake of vitamins A and C was not associated with lower risks of dying of coronary disease.

Kushi LH, Folsom AR, Prineas RJ, et al:

Dietary antioxidant vitamins and death from coronary heart disease in postmenopausal women. *N Engl J Med* 1996;334:1156-1162.

Low-dose heparin for prevention of fatal pulmonary embolism in patients with infectious diseases

Fatal pulmonary and other thromboembolic complications are common in hospital inpatients. However, there is little evidence on the routine use of pharmacologic thromboprophylaxis in nonsurgical patients. In a study using the postrandomization consent design, the authors assessed the efficacy and safety of low-dose heparin sodium in the prevention of hospital-acquired, clinically relevant, fatal pulmonary embolism in patients with infectious diseases.

A total of 19,751 consecutive patients, aged 55 years or older, admitted to departments of infectious diseases in six Swedish hospitals, were screened for inclusion in the randomized, controlled, unblinded, multicenter trial. Of the eligible patients, 5776 were assigned to receive subcutaneous standard heparin sodium, 5000 IU every 12 hours until hospital discharge or for a maximum of 3 weeks; 5917 were assigned to receive no prophylactic treatment (control group). Consent was sought only from the heparin-treated group. Follow-up was for 3 weeks after discharge from the hospital or for a maximum of 60 days from randomization. The primary endpoint was necropsy-verified pulmonary embolism of predefined clinical relevance.

By intention-to-treat analysis, mortality was similar in the heparin-treated and control groups and the median time from admission to death

was 16 days in both groups. Necropsy-verified pulmonary embolism occurred in 15 heparin-treated and 16 control-group patients. There was a significant difference between the heparin-treated and the control group in median time from randomization to fatal pulmonary embolism (28 [range, 24 to 36] days vs 12.5 [range, 10 to 20] days, respectively; $P=.007$). This difference corresponds to the duration of heparin prophylaxis. Nonfatal thromboembolic complications occurred in more of the control than of the heparin-treated group (116 vs 70, respectively; $P=.0012$).

These findings do not support the routine use of heparin prophylaxis for 3 weeks or less in large groups of nonsurgical patients. Further studies are needed to investigate whether heparin prophylaxis of longer duration may prevent fatal pulmonary embolism.

Gardlund B for the Heparin Prophylaxis Study Group: Randomised, controlled trial of low-dose heparin for prevention of fatal pulmonary embolism in patients with infectious diseases. *Lancet* 1996; 347:1357-1361.

Diet and risk of non-Hodgkin's lymphoma in older women

A prospective cohort study with a 7-year follow-up period was conducted to test whether high dietary intakes of fat, protein, and milk are associated with the development of non-Hodgkin's lymphoma in older women.

The sample from the general community comprised 35,156 Iowa women aged 55 to 69 years with no prior history of cancer who returned the 1986 baseline questionnaire.

After controlling for age, marital status, residence, total energy intake, and transfusion history, the relative risks (RRs) for the highest tertile of