

Omega 3 fats do not affect mortality

Clinical question Does supplementation with omega 3 fatty acids decrease mortality, cardiovascular disease or cancer in adults?

Bottom line Overall, omega 3 fatty acid supplementation does not decrease mortality or cardiovascular disease as compared with placebo. This study combined both primary and secondary prevention; that is, it included people with and without coronary heart disease.

Synopsis The authors of this review, which is an update of a previous Cochrane review, identified 48 randomised controlled trials and 41 cohort studies evaluating the effect of fish oil supplementation on overall mortality, cardiovascular disease and cancer in adults. They identified these studies using the usual rigorous Cochrane methodology and analysed the results from randomised trials separately from cohort data. The studies included patients with and without pre-existing coronary heart disease. As a result, the authors of this study combined both primary and secondary prevention research. Omega 3 fatty acids were given either as supplements or as a recommendation to eat more oily fish. In randomised trials enrolling more than 30,000 patients, omega 3 supplementation did not significantly reduce mortality (relative risk [RR] 0.87, 95 per cent

confidence interval 0.73–1.03) or the likelihood of a cardiovascular event (RR 1.09, CI 0.87–1.37). Long-chain omega 3 fatty acids did not produce different results from short-chain fats. Cancer was neither increased nor decreased in either clinical trials or cohort studies. The lack of benefit demonstrated in this study conflicts with the results of an earlier meta-analysis of the effect in patients with coronary heart disease (*American Journal of Medicine* 2002;112:298-304). However, this is the second study published after that meta-analysis that did not find a benefit overall.

Level of evidence 1a (systematic review of randomised controlled trials with homogeneity)

Reference Hooper L, Thompson RL, Harrison RA, et al. Risks and benefits of omega 3 fats for mortality, cardiovascular disease, and cancer: systematic review. *BMJ* 2006;332:752–60.

Funding Government

POEM (Patient Oriented Evidence that Matters) is a registered trade mark of InfoPOEMS © InfoPOEM Inc 1995-2006 InfoPOEM. www.infopoems.com