**POEMs**

**Omega-3 fatty acid supplementation does not decrease CVD-related outcomes**

**Bottom Line:**
Omega-3 fatty acid supplementation does not decrease the risk of cardiovascular outcomes in this older population. Although the numbers are small, supplementation may prevent heart disease in patients already at low risk; that is, patients without a history of cardiovascular disease and who are not hypertensive. (LOE = 1b)

**Reference:**

**Synopsis:**
This study is a separate analysis of a study aimed at determining the effect of omega-3 fatty acids and ‘macular xanthophylls’ (lutein and zeaxanthin) on the progression of age-related macular degeneration in patients between the ages of 50 years and 85 years (average age = 74 years) who have intermediate or advanced age-related macular degeneration.

Most patients (>95 per cent) were white, approximately 50 per cent were current or former smokers, 13 per cent had diabetes mellitus, and 19 per cent had a history of cardiovascular or cerebrovascular disease with no episodes in the 12 months prior to enrolment. After a 30-day trial with placebo to weed out nonadherent or second-thought patients, the 4203 patients were randomised to receive (1) omega-3 fatty acids, (2) macular xanthophylls, (3) both, or (4) matching placebo for an average of 4.8 years. The fatty acids were docosahexaenoic acid (DHA) 350mg and eicopentaenoic acid (EPA) 650mg.

Using intention-to-treat analysis, the combined outcome of cardiovascular-related events (mortality and morbidity events) was not different among the patients receiving the fatty acids as compared with patients not receiving them. This study had the ability to find a 25 per cent reduction in these events if this difference occurred (at 80 per cent power).

Treatment with macular xanthophylls similarly did not affect cardiovascular outcomes. There was a reduction in cardiovascular-related events in patients without a history of cardiovascular disease and in those without hypertension.