Lower Fatal Coronary Heart Disease with Higher DHA/EPA and Fish Intakes

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Reference:

Marine (n-3) Fatty Acids, Fish Consumption, and the 10-Year Risk of Fatal and Nonfatal Coronary Heart Disease in a Large Population of Dutch Adults with Low Fish Intake


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Summary:

This population study involved 21,342 Dutch participants (aged 20-65 years) with a low intake of fish who had no history of myocardial infarctions (heart attacks) or stroke. They were followed for a duration of 9-14 years. Their estimated intakes of both fish and (DHA plus EPA) were determined and correlated with their 10-year risk for non-fatal myocardial infarction (MI), fatal coronary heart disease (CHD), and fatal MI.

Compared with those being in the lowest quartile (bottom 25% of the population) for median daily (DHA plus EPA) intakes of 40 mg/day, those in the highest quartile (median intakes of 234 mg/day) had a significantly lower risk of dying from fatal CHD (lower by 49% when adjusted for several lifestyle/medical factors) and a 62% lower risk of fatal MI with no significant change in risk for non-fatal MI. Similar findings were found with fish intakes such that those in the highest quartile (median of 17.3 gms/day) had a 48% lower risk for fatal CHD and a 60% lower risk for fatal MI as compared to the lowest quartile (median intake of only 1.1 gms/day). No significant relation between fish intake and non-fatal MI was found.

Dr. Holub's Comments:
This important and interesting study on a very large population of subjects indicates that a rather moderate intake of (DHA plus EPA) can provide considerable benefit against cardiac mortality in subjects devoid of a previous MI or stroke. An intake of (DHA plus EPA) of 234 mg/day is lower than the 500 mg/person/day target as recommended by the dietetic organizations of North America. DHA plus EPA intakes of 900-1000 mg/day have been recommended by the American Heart Association for those with coronary heart disease. Based on a fish serving of 100 gms, a median fish intake of 17.3 gms/day corresponds to only 1.2 servings/person/week. Of course, both wild and farmed fish of various species and sources can have dramatically different levels of DHA/EPA per serving. In this study, the majority of the DHA/EPA as consumed was via fish for those in the highest quartile of intakes.