

Fish and n-3 fatty acids for the prevention of fatal coronary heart disease and sudden cardiac death¹⁻⁴

The American Journal of Clinical Nutrition 2008;87(suppl):1991S– 6S

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ABSTRACT

Large observational studies, randomized clinical trials, and experimental studies have evaluated the effects of fish and n-3 fatty acid consumption on fatal coronary heart disease (CHD) and sudden cardiac death (SCD), clinically defined events that most often share the final common pathway of fatal ventricular arrhythmia. These different study designs, each having complementary strengths and limitations, provide strong concordant evidence that **modest consumption of fish or fish oil (1–2 servings/wk of oily fish, or ~ 250 mg/d of EPA+DHA) substantially reduces the risk of CHD death and SCD.** Pooled analysis of prospective cohort studies and randomized clinical trials demonstrates the magnitude and dose-response of this effect, with 36% lower risk of CHD death comparing 0 and 250 mg/d of EPA+DHA consumption ($P < 0.001$), but then little additional benefit with higher intakes. Reductions in risk are even larger in observational studies utilizing tissue biomarkers of n-3 fatty acids that more accurately measure dietary consumption. The concordance of findings from different studies also suggests that effects of fish or fish oil on CHD death and SCD do not vary depending on presence or absence of established CHD. The strength and consistency of the evidence, and the magnitude of this effect are each notable. **Because more than one-half of all CHD deaths and two thirds of SCD occur among individuals without recognized heart disease, modest consumption of fish or fish oil, together with smoking cessation and regular moderate physical activity, should be among the first-line treatments for prevention of CHD death and SCD.**

“Our food should be our medicine, and our medicine should be our food.” - Hippocrates 431 BC

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2 Presented at the symposium “Beyond Cholesterol: Prevention and Treatment of Coronary Heart Disease with n-3 Fatty Acids,” held in New York, NY, June 9, 2007.

3 Supported by the National Heart, Lung, and Blood Institute, National Institutes of Health (K08-HL-075628).

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