

Abstract

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Dietary intake of n-3 long-chain polyunsaturated fatty acids and coronary events in Norwegian patients with coronary artery disease.

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BACKGROUND: Consumption of fish and n-3 (omega-3) long-chain polyunsaturated fatty acids (LCPUFAs) has been associated with reduced risk of coronary artery disease (CAD) mortality.

OBJECTIVE: The aim was to examine the relation between dietary intake of n-3 LCPUFAs or fish and risk of future coronary events or mortality in patients with well-characterized CAD.

DESIGN: This was a substudy of 2412 participants in the Western Norway B Vitamin Intervention Trial with a median follow-up time of 57 mo. Patients aged >18 y diagnosed with CAD (81% men) completed a food-frequency questionnaire at baseline, from which daily intakes of eicosapentaenoic, docosapentaenoic, and docosahexaenoic acids as well as fish were estimated on the basis of diet and intakes of supplements including fish and cod liver oils. The main endpoint was a composite of coronary events, including coronary death, nonfatal acute myocardial infarction, and unstable angina pectoris.

RESULTS: The mean (+/-SD) intakes of n-3 LCPUFAs in quartiles 1-4 were 0.58 +/- 0.29, 0.83 +/- 0.30, 1.36 +/- 0.44, and 2.64 +/- 1.18 g/d, respectively. We found no dose-response relation between quartiles of n-3 LCPUFAs (based on intake as percentage of total energy) or fish and coronary events or separate endpoints. A post hoc additive proportional hazards model showed a slightly increased risk of coronary events at an intake of n-3 LCPUFAs < approximately 0.30 g/d.

CONCLUSION: Among Norwegian patients with CAD consuming relatively high amounts of n-3 LCPUFAs and fish, there were no significant trends toward a reduced risk of coronary events or mortality with increasing intakes. This trial was registered at clinicaltrials.gov as NCT00354081.

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