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## ARHQ evidence report confirms fish oil can reduce all-cause mortality and other CVD outcomes

**Rockville, MD** - A report issued by the **Agency for Healthcare Research and Quality** (AHRQ) has found sufficient evidence to state that omega-3 fatty acids—the beneficial component of fish and/or fish-oil supplements—can help reduce the risk of CVD mortality and other outcomes. [[1](#)]

"Overall, a number of studies offer evidence to support the hypothesis that fish, fish-oil, or alpha-linolenic-acid (ALA)-supplement consumption reduces all-cause mortality and various CVD outcomes, although the evidence is strongest for fish or fish oil," the agency writes in the March 2004 evidence report.

The report, prepared by the **Tufts-New England Medical Center** (Tufts-NEMC), reviewed information from experimental and observational studies that investigated the effect of dietary or supplemental omega-3 fatty acids on clinical outcomes.

In particular, the review examined how omega-3 fatty acids affect particular CVD outcomes, such as MI and stroke, as well as whether fatty acids can play a role in primary and secondary prevention. The review summarized data from 39 studies, including 12 randomized controlled trials (RCTs), 22 prospective cohort studies, four case-control studies, and one cross-sectional study.

Overall, the agency concluded that evidence from primary- and secondary-prevention studies supports the hypothesis that consumption of omega-3 fatty acids, fish, and fish oil reduces all-cause mortality and various CVD outcomes, including sudden death, cardiac death, and MI.

Overall, the methodological quality of the studies included in the evidence report was graded "good" for fish oil, but RCT data for alpha linolenic acid, a type of omega-3 fatty acid from plants such as flaxseed, soybeans, and walnuts, was poor. The adverse events due to fish-oil or ALA-supplement consumption appear minor, the AHRQ reports.

### More data still needed

The studies included in the report were heterogeneous with regard to methods for estimating fish or omega-3 fatty-acid intake, background diets, background risk for heart disease, settings, and methodology, the review notes.

In addition, the optimal quantity and type of omega-3 fatty acid, as well as the optimal ratio of omega-3 to omega-6 fatty acid, remain undefined. Different types of fish and methods of preparation may also cause different effects. The AHRQ notes there are few data concerning the needs of different high-risk subpopulations and further research will be needed to study the effect of omega-3 fatty acid on CVD outcomes in people at high risk of sudden death, those with diabetes, CHF, or other chronic diseases.

**Dr Paul Coates** (National Institutes of Health, Bethesda, MD), director of the **Office of Dietary Supplements**, said in a press release that the report would be used to fill existing gaps in knowledge. In collaboration with other NIH agencies, the report will be used to develop an appropriate research agenda for omega-3 fatty acids, he said. Findings from another AHRQ evidence report found that omega-3 fatty acids do not affect fasting blood sugar, glycosylated hemoglobin, insulin levels, or insulin resistance in type 2 diabetics.