

## **N-3 Fatty Acids and Cardiac Disease - Today**

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A higher intake of n-3 polyunsaturated fatty acids (n-3 PUFA, omega-3 fatty acids) is suggested to prevent cardiac disease. Observational studies show fairly consistent that a higher intake of fish is associated with less fatal coronary heart disease in several populations. The problem with these studies is that people with a high intake of fatty fish might live healthier in general. It is difficult to remove this kind of confounding completely in the statistical analyses. Therefore, trial evidence is important. However, evidence from trials is less clear. In two open label trials in patients with a previous myocardial infarction intake of fish or fish oil prevented fatal coronary heart disease. In contrast, a third trial in Japan showed that supplementation with eicosapentaenoic acid - an n-3 PUFA - reduced non-fatal cardiovascular events, but did not reduce fatal events. Another trial in patients with stable angina even suggested a higher risk of sudden cardiac death in patients taking fish oil. Furthermore, results of trials in patients with an implantable cardioverter defibrillator (ICD) that investigated effects of fish oil on arrhythmia in patients already suffering from ventricular tachycardia are not consistent. Thus, today the evidence about whether fish oil prevents heart disease is still suggestive, but not conclusive. Additional well-controlled randomized trials are needed to further define the effects of n-3 fatty acids on cardiac disease.