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New research indicates that decreased levels of EPA, an omega-3 fatty acid found in fish, are related to an increased risk of death in women following a heart attack.

OMEGA-3 FATTY ACIDS AND DEATH RATES IN FEMALE HEART ATTACK SURVIVORS

Omega-3 polyunsaturated fatty acids are known to have beneficial effects on many forms of cardiovascular disease, and new evidence indicates a positive effect on prognoses for survivors of acute myocardial infarctions (AMI), or heart attacks.

A September 2009 article from Circulation Journal reported an association between decreased levels of the omega-3 fatty acid eicosapentaenoic acid (EPA) in women and a greater risk of all-cause mortality following a heart attack.

The study included 365 men and 143 women enrolled in the Infarction Prognosis Study registry of acute myocardial infarction. Blood samples were analyzed for glucose, lipids, eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and other factors. The subjects were followed for an average of 16.1 months.

Over the follow-up period, 29 patients died of cardiovascular causes and 7 from noncardiovascular causes. Those who died were older and tended to have a lower body mass index (BMI), a history of hypertension, lower total and LDL cholesterol levels and higher C-reactive protein levels (a marker of inflammation). EPA levels in survivors comprised 1.49 percent of total plasma phospholipids, compared to 1.24 percent in non-survivors. Lower plasma levels of EPA (but not DHA) were an independent predictor for all-cause-mortality in patients with AMI, but this relationship was significant only in female patients.

The researchers attribute this particular benefit of EPA to its anti-inflammatory effect, which has been found to be greater than DHA in some studies.

< Lee SH, Shin MH, Kim JS, Ko YG, Kang SM, Choi D, Jang Y, Chung N, Shim WH, Cho SY, Manabe I, Ha JW. Blood Eicosapentaenoic Acid and Docosahexaenoic Acid as Predictors of All-Cause Mortality in Patients With Acute Myocardial Infarction. 2009. Circ J 73(12):2250-7. >