Young women may reduce heart disease risk eating fish with omega 3 fatty acids

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Young women may reduce their risk of developing cardiovascular disease simply by eating more fish rich in omega-3 fatty acids, researchers reported in *Hypertension: Journal of the American Heart Association*.

In the first population-based study in women of childbearing age, those who rarely or never ate fish had 50 percent more cardiovascular problems over eight years than those who ate fish regularly.

Compared to women who ate fish high in omega-3 weekly, the risk was 90 percent higher for those who rarely or never ate fish.

Researchers used a Danish nationwide population based pregnancy cohort to examine whether or not eating more fish might reduce cardiovascular disease risk in the young women.

About 49,000 women, 15-49 years old, median age of just under 30 years in early pregnancy – were interviewed by telephone or answered food frequency questionnaires about how much, what types and how often they ate fish, as well as lifestyle and family history questions.

Researchers recorded 577 cardiovascular events during the eight-year period, including five cardiovascular deaths in women without any prior diagnosis of the disease. In all, 328 events were due to hypertensive disease, 146 from cerebrovascular disease, and 103 from ischemic heart disease.

Inpatient and outpatient admission for cardiovascular disease was much more common among women who reported eating little or no fish. In three different assessments over a 30-week period, women who never ate fish had a three-fold higher disease risk compared to women who ate fish every week.

"To our knowledge this is the first study of this size to focus exclusively on women of childbearing age," said Marin Strøm, Ph.D., lead researcher and post doctoral fellow at the Centre for Fetal Programming, at Statens Serum Institut in Copenhagen, Denmark. "The biggest challenge in getting health messages like this across to younger populations is that usually the benefits may not be evident for 30 or 40 years, but our study shows this is not the case. We saw a strong association with cardiovascular disease in the women who were still in their late 30's."

Fish oil contains long chain omega-3 polyunsaturated fatty acids, which are believed to protect against heart and vascular disease. Few women in the study took fish oil supplements, so these were excluded from the analyses and the results were based on the dietary intake of omega-3 fatty acids, not intake from supplements.

Most previous studies that found cardiovascular benefits of omega-3 fatty acids have focused on men, according to Strøm.

"Men and women share many cardiovascular risk factors, but some studies have shown that there might also be gender differences. For example, inflammation, cholesterol, and triglyceride levels may have a more negative influence among women," Strom said.

Even women who ate fish only a couple of times a month benefitted. "Women who eat fish should find the results encouraging, but it is important to emphasize that to obtain the greatest benefit from fish and

fish oils, women should follow the dietary recommendations to eat fish as a main meal at least twice a week," she said.

The most common fish consumed by women in the study were cod, salmon, herring, and mackerel.

"Our study shows that for younger women, eating fish is very important for overall health, and even though we found cardio-protective effects at relatively modest dietary levels, higher levels may yield additional benefits," Strøm said.

Provided by American Heart Association