

Mercury in fish not heart risk: study

No differences were seen in the rates of heart disease and stroke

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In an unusual health study, researchers analyzing toxin levels in tens of thousands of toenail clippings determined that mercury from eating fish does not raise the risk of heart disease or stroke.

Health experts have long urged people to eat fish to lower heart risks, but some have worried that the mercury in certain types of fish like shark and swordfish might offset any benefits. Earlier studies on mercury and heart problems in adults have yielded contradictory results.

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The latest government-funded work is the largest to look at this question. Instead of relying on what people said they ate, it measured mercury in their toenails — a good gauge of long-term exposure to the metal from fish consumption.

No differences were seen in the rates of heart and stroke among those with the highest concentrations of mercury compared to those with the lowest.

"The average person should eat fish as part of a healthy diet," and not worry about ill heart effects, said Harvard School of Public Health cardiologist Dr. Dariush Mozaffarian, who led the research published in Thursday's New England Journal of Medicine.

Small fish absorb mercury when they feed on plankton, and they, in turn, are eaten by bigger fish. Older and larger predator fish — like shark, swordfish and king mackerel — tend to accumulate the highest mercury levels.

Mercury occurs naturally in soil and rocks, including coal. It gets into the air from coal-fired power plants and other sources, and settles into water.

In high quantities, the metal can damage the developing brain and nervous system of young children and is a special concern for pregnant women because of potential harm to the fetus.

The new research in adults used information from two studies of 174,000 health professionals. Some participants sent in toenail clippings when the work started decades ago.

Since toenails grow slowly and at different rates, they are favoured over blood samples because they provide a more accurate picture of long-term mercury exposure. Toenails are also easy to collect and can be stored cheaply.

After an average of 11 years, 3,500 participants who had given nail samples had suffered strokes or developed heart disease. Researchers compared them to an equal number of participants who did not develop those health problems.

After adjusting for factors such as age, gender and smoking, there was no link between mercury exposure and risks for heart disease or stroke. This was true even at high exposure where the average toenail mercury levels were 1 microgram per gram — roughly twice the recommended limit for pregnant women.

The American Heart Association recommends that adults eat fish at least twice a week. Pregnant women and young children are advised to avoid fish with the highest mercury concentrations and limit themselves to 12 ounces of fish a week such as shrimp, salmon and catfish, which contain lower mercury levels.

While fish contains heart-healthy omega-3 fatty acids, consumers should also round out their diet with whole grains and fruits and vegetables, experts say.

"Fish intake is important, but we also have to think about the whole package," said Alice Lichtenstein, a Tufts University nutrition professor and spokeswoman for the heart group, who was not involved in the research.

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