

The Benefits and Risks of Eating Lake Superior Fish

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Intro: This is Superior Science News. Today's program explores the health risks and benefits of eating fish from Lake Superior.

NAT SOUND: waves fade into conference sound

Your doctor may tell you that fish is a good source of protein or that their omega 3 fatty acids benefit heart health. But what you may not know are the risks associated with eating fish. Fish contaminants in Lake Superior concern those who subsist off the lake. Chequamegon Bay tribes began investigating the effects of contaminants in fish and how such toxic chemicals find their way into Lake Superior. They looked to the Great Lakes Indian Fish and Wildlife Commission (or GLIFWC) for help. GLIFWC Environmental Biologist Matt Hudson describes the geography associated with Lake Superior pollutants.

"The major route for most of these chemicals to get into Lake Superior is through the atmosphere. There's residual sources of some of these chemicals--like toxaphene was used in the southern United States on cotton crops. When you get the right weather pattern, some of that toxaphene that's still in that soil down there can get up into the atmosphere and carried in conveyor belt fashion up to the Great Lakes Region and dumped in rainstorms over the Great Lakes."

Hudson says the Bad River, Fond du Lac and Red Cliff bands sought out GLIFWC nearly twenty years ago to address the problem.

"Tribal members came to GLIFWC and said, 'We're concerned about mercury in fish.' This was focused more on walleye on inland lakes in Minnesota, Wisconsin, Michigan. So, GLIFWC started a contaminant monitoring program. We've been measuring mercury in walleye in inland lakes since 1989. We recently started testing Lake Superior fish as well."

Minnesota Department of Health Research Scientist Pat McCann says they test about 100 water bodies a year for contaminants. She says they're emphasizing public awareness about fish consumption so people know what pollutants could be tainting their next meal.

"Mercury is the biggest problem in Minnesota, and mercury is highest in the top predator fish like walleye, northern, musky, bass and larger fish or the older fish are more contaminated than the smaller fish because they can't excrete the mercury or they can't excrete it very well."

McCann says mercury is a bigger problem in inland lakes than it is for Lake Superior. She says a biomonitoring group analyzed the mercury content in the hair of Wisconsin residents and came up with surprising results.

"They found that the people with the highest levels of mercury exposure were retired males over 50, and those who ate more than eight meals of fish a month and included sport-caught fish."

Although the levels were not toxic, McCann says the research is an eye-opener, and they are working to keep people informed of the risks. But, she says people shouldn't eliminate fish from their diet.

"What people need to know is that they should eat fish, but they should make choices about eating fish based on the contaminant levels and based on who they are--if they're a pregnant woman they need to be more careful about which fish they eat."

And McCann says finding the contaminant levels of fish is only a mouse-click away.

"The Minnesota Fish Consumption Advisory is on the Department of Health's website, and you can find it on the DNR's website. It's searchable by lake on the DNR's website. EPA includes links to all the state advisories in the Great Lakes area on their Glenpo website. We also have printed materials that we distribute free of charge through various distributors like healthcare providers, environmental groups, state agencies, parks--places like that distribute our materials. Or, the public can just call, and we'll send out brochures."

Hudson says they're doing what they can to get the same information out to Chequamegon Bay tribes.

"We're trying to get as much information as we can about fish species that tribal members are eating and concerned about so we can give them the tools to make choices. They're always going to eat fish. It's a part of their culture, so we try to give them the species of fish and sizes of fish and information that will help them reduce their risk and maximize benefits."

Hudson and McCann agree eating fish like herring and whitefish, which are low in contaminants, can improve heart health over time. They are high in omega-3 fatty acids, which can help maintain the elasticity of artery walls, decrease the risk of having a heart attack or stroke, prevent blood clots, reduce blood pressure and stabilize heart rhythm. The Minnesota Department of Health advises people to eat one serving of herring or whitefish from Lake Superior a week.

For Superior Science News, I'm Marie Zhuikov.

Outcue: (waves) This is a production of Minnesota Sea Grant and KUWS radio.