Flathead Lake

Lake Trout

Consumption Guidelines

Fish Are Part of a Healthy Diet

Make sure the lake trout you eat are safe

These guidelines are intended to assist you in making personal decisions about the consumption of lake trout from Flathead Lake. They are not intended to discourage you from eating lake trout, but rather to provide the information you need to minimize risks from mercury and PCBs, which are present in all fish. For more information on the health risks/benefits of fish consumption, call the Confederated Salish and Kootenai Tribal Fisheries Program at (406) 675-2700, or the Montana Department of Public Health and Human Services at (406) 444-2408 or go to the following websites: www.epa.gov/ost/fish, www.cfsan.fda.gov and www.epa.gov/fishadvisories/advice.

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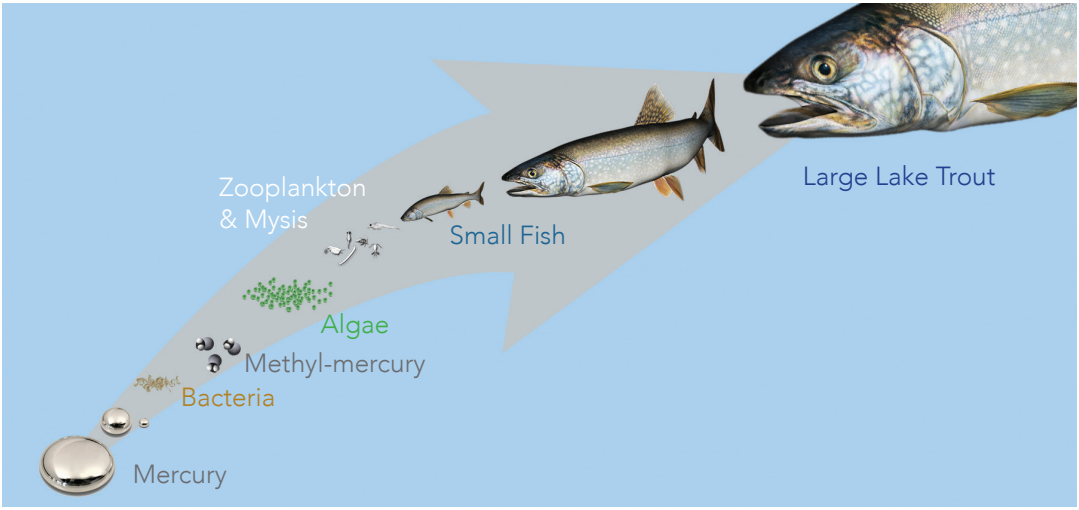
Not only is it fun to fish for lake trout and to eat the fish you catch, but fish can make important contributions to a healthy diet because they are high in protein, omega-3's, and other nutrients. Regular consumption of fish has been shown to reduce the incidence of heart disease and cholesterol, and to improve brain and eye development in children. Unfortunately, fish also accumulate contaminants from the environment, such as mercury and PCBs, chemicals that can be very harmful to human health. Therefore you should know how to obtain the benefits of eating lake trout without unnecessary risk from mercury and other contaminants. The information in this booklet should help you make good, healthy choices.

The American Heart Association and the Harvard School of Public Health agree that because cold-water fish like lake trout have a relatively low-fat and cholesterol content they make a good protein to substitute for the red meat in your diet. A lake trout fillet has less than half the calories of a hamburger and is a better source of vitamins and minerals. That is as long as the fish has safe levels of mercury and other harmful chemicals. The larger the fish the more mercury it will likely contain.



Mercury gets into the air, soil, and water mostly from burning fossil fuels but also via household refuse, batteries, mining and industrial wastes. Bacteria in soils and sediments convert mercury to biologically active methylmercury. In this form, it is taken up by tiny aquatic plants and animals. Fish that eat these organisms build up methylmercury in their bodies. As ever-bigger fish eat smaller ones, the methylmercury accumulates in their tissues. In a given water body, the highest concentrations of methylmercury are generally found in large fish that eat other fish. Our bodies can safely metabolize and remove small amounts of consumed methylmercury, but larger amounts may cause damage to the nervous system.

Mercury most severely affects babies and developing fetuses in pregnant women. Mercury is most harmful to fetuses and babies because it harms their growing brains. Babies with mercury in their body may grow and learn more slowly. Remember, after a baby is born, the mother can pass mercury from her body to her baby when breastfeeding.

How to Safely Eat Lake Trout from Flathead Lake

1 Keep smaller fish for eating & pay attention to the number of servings/month

Fish accumulate contaminants over time. Smaller fish will usually have fewer contaminants than larger fish. See the Meal Advice Chart on the back page for fish size and serving recommendations.

2 Clean & cook to minimize contaminants

Because some contaminants like PCBs are deposited in fat, they can be reduced by trimming fat & cooking fish on a grill or broiler pan so juices drain away from the meat.

3 Be aware of high risk individuals

Children under 14 years of age, nursing mothers & women of child-bearing age are at the greatest risk of having or passing on developmental problems caused by contaminants, so these individuals should give extra attention to choosing the safest fish to eat.

4 Pay attention to serving size

The recommended adult serving size is about the size & thickness of your hand (large oval which is about 8 oz uncooked or 6 oz. cooked). Children get smaller servings (small oval or 4 oz uncooked, 3 oz cooked).

Meal Advice Chart

Lake Trout Size (inches)	Under 14	14 to 18	18 to 22	22 to 26	26 to 30	30+
Women* & Children (Servings/Month)	5	3	2	1	AVOID	AVOID
Adults** (Servings/Month)	12	7	6	4	2	AVOID

*Women in this context refers to women of childbearing age. **Adults refers to women past childbearing age and men.

Mercury in the Environment

Airborne mercury emitted from power plants that burn fossil fuels can fall to the ground in raindrops, in dust, or simply due to gravity. After it falls, it can end up in streams and lakes where it can be transformed to methylmercury through microbial activity. Methylmercury accumulates in fish at levels that can harm the fish and the other animals that eat them. The extent to which it accumulates is a function of a number of factors, including the amount of mercury deposited from the atmosphere; local non-air releases of mercury; naturally occurring mercury in soils; the physical, biological, and chemical properties of different water bodies; and the age, size and types of food the fish eats. Birds and mammals that eat fish are more exposed to methylmercury than any other animals in water ecosystems. Methylmercury has been found in eagles, otters, and other fish predators, and research has shown that some highly exposed species are harmed. The effects include mortality (death), reduced fertility, slower growth and development, and abnormal behavior that affects survival. In addition, research indicates that methylmercury can alter the endocrine system of fish, which plays an important role in fish development and reproduction.

For more information on the health risks and benefits of fish consumption and mercury in the environment, call the Confederated Salish and Kootenai Tribal Fisheries Program at (406) 675-2700, or the Montana Dept. of Public Health and Human Services at (406) 444-2408 or go to the following websites: www.epa.gov/ost/fish, www.cfsan.fda.gov and www.epa.gov/fishadvisories/advice.

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