

PFOS Fish Consumption Advisory for Lake Washington, Lake Sammamish, and Lake Meridian: Questions & Answers

December 5, 2022

Washington State Department of Health (DOH) developed this fact sheet to answer your health questions about the new PFOS fish consumption advisory for Lake Washington, Lake Sammamish, and Lake Meridian.

What are the DOH recommendations for fish consumption from Lake Washington, Lake Sammamish, and Lake Meridian?

Continue to eat fish - fish is good for you and has important health benefits. Follow the below guidelines to safely eat fish caught in Lake Washington, Lake Sammamish, and Lake Meridian:

- Lake Washington
 - Common Carp Do not eat
 - Cutthroat Trout Do not eat
 - Largemouth Bass Do not eat
 - Northern Pikeminnow Do not eat
 - Smallmouth Bass Do not eat
 - Yellow Perch: Up to 1 meal per month
 - Brown Bullhead (Bullhead Catfish): Up to 4 meals per month
 - Pumpkinseed: Healthy Choice
 Sockeye Salmon: Healthy Choice
 Rainbow Trout: Healthy Choice
- Lake Sammamish
 - Largemouth Bass: Do not eat
 - Northern Pikeminnow: Do not eat
 - Yellow Perch: Up to 1 meal per month
 - Smallmouth Bass: Up to 2 meals per month
 - Brown Bullhead (Bullhead Catfish): Healthy Choice
- Lake Meridian
 - Northern Pikeminnow: Do not eat
 - Smallmouth Bass: Do not eat
 - Largemouth Bass: Up to 1 meal per month
 - Yellow Perch: Up to 1 meal per month
 - Kokanee (Silver Trout): Up to 2 meals per month
 - Brown Bullhead (Bullhead Catfish): Healthy Choice

What is PFOS?

Perfluorooctane sulfonate (PFOS) is a human-made chemical that was used in many non-stick, water-resistant, and stain-resistant products in the U.S. from the late 1940s to 2002. In Washington State, it was also used in firefighting foam.

PFOS is part of a family of chemicals called per- and polyfluoroalkyl substances (PFAS), sometimes called "forever chemicals" in the news. PFOS takes a long time to break down, which means it stays in the environment for a very long time. Because of this, PFOS and other PFAS chemicals are detected widely in soil, air, and water. PFAS chemicals like PFOS can also build up in animals, fish, and people if they are exposed.

While PFOS manufacturing was phased out in the United States, products containing PFOS are still imported from other countries.

Why is PFOS a health concern?

There is strong evidence from animal studies and growing evidence from human studies that chemicals in the PFAS family, like PFOS, can harm human health. For people, we know that having higher levels of PFOS in your body could:

- Interfere with your immune system and make some vaccinations less effective.
- Increase your risk for:
 - kidney cancer
 - a lower birthweight for your baby
 - high cholesterol

New human studies show PFAS chemicals may also increase your risk for other cancers (like testicular cancer), thyroid disease, high blood pressure during pregnancy, and other reproductive issues.

The best way to protect yourself and your family is to lower your exposure. This includes being mindful of how often you eat some types of fish from Lake Washington, Lake Sammamish, and Lake Meridian.

Who is most at risk of PFOS health impacts?

Your risk of developing health problems depends on how much, how often, and how long you were exposed. Age, lifestyle, and overall health can impact how your body responds to PFOS exposure. Sensitive groups, such as pregnant people or people who may become pregnant, breastfeeding people, and infants being breastfed are the most at risk of long-term health impacts from PFOS exposure.

Why is there a new fish advisory for Lake Washington, Lake Sammamish, and Lake Meridian?

Concern about PFAS chemical contamination in fish, including PFOS, is increasing around the country. Because of this, the Washington State Department of Ecology collected freshwater fish from Lake Washington, Lake Sammamish, and Lake Meridian and studied their tissue for 15 types of PFAS chemicals.

We looked at the data from the Department of Ecology and identified PFOS as the main type of PFAS chemical in fish in Lake Washington, Lake Sammamish, and Lake Meridian. Some fish species had contamination levels high enough that they may impact health if eaten often. Because of this, we issued an advisory with updated safe eating guidelines.

How did PFOS get into fish in Lake Washington, Lake Sammamish, and Lake Meridian?

PFOS gets into fish when they eat PFOS-contaminated food, swallow PFOS-contaminated water, or live in contaminated water for a long time. When fish live in PFOS-contaminated water, PFOS gets into their bodies as water passes through their gills.

Why are only some fish species impacted?

We are still learning about how PFOS builds up in fish. Usually, fish species at the top of the food chain have higher levels of PFOS due to a process called "bioaccumulation". Bioaccumulation happens when larger fish at the top of the food chain eat smaller fish that have been contaminated with PFOS. Because the larger fish must eat lots of small fish to survive, they end up eating higher amounts of PFOS contamination. Because PFOS does not break down easily, it builds up in fish at the top of the food chain.

Resident fish – the fish who live in the lakes for their entire life – have more exposure to PFOS because they do not leave the contaminated water.

This advisory is for fish species we have information on. As we gather data on other species, more safe eating guidelines may be issued.

Are the fish in other water bodies in King County impacted?

Right now, we don't have enough information to know if fish in other lakes or rivers in King County are impacted. We'll continue to evaluate information from the other lakes and rivers as it comes in. Based on the information we have from Lake Washington, Lake Sammamish, and Lake Meridian, we anticipate that fish in other lakes may also be contaminated with PFOS. We may update advisories for other locations as we get more information.

Right now, we don't have any PFOS advisories on saltwater fish.

Can we still swim in these lakes?

Yes. The PFOS fish advisory does not impact swimming or other recreation activities. Please follow existing state or local guidance on swimming or water recreation activities.

When will it be safe to eat the impacted fish from these lakes again?

We don't currently know when it will be safe to adjust the eating guidelines for impacted fish. The Department of Ecology is looking for how PFAS chemicals, including PFOS, get into Lake Washington. We understand that this may be frustrating, and we will update our guidance as soon as we get more information from that search.

Why wasn't fish tissue sampling done before?

We are expanding our search for all types of PFAS chemicals, including PFOS, as we learn more about what parts of the environment may be impacted. Scientists are still learning about how widespread PFAS chemical contamination is, and the science is changing quickly. Because of this, fish tissue sampling for different types of PFAS chemicals has only been done in recent years around the country.

What is Washington State doing about PFOS and other PFAS chemicals?

The Department of Ecology and Department of Health developed a statewide Chemical Action Plan for PFAS chemicals to address human exposure and environmental contamination for several different types of PFAS chemicals, including PFOS. The plan was developed with stakeholder input. Additionally, the Department of Ecology and Department of Health have collaborated on restricting PFAS chemicals in consumer products. Standards for drinking water and bans on PFAS-containing food contact papers and firefighting foam also exist in Washington. For more information, visit the "What Our State Is Doing to Address PFAS Contamination" section of our website (https://doh.wa.gov/community-and-environment/contaminants/pfas).

Where can I get additional information about this advisory?

For more information on PFAS chemicals, including PFOS, visit the DOH website at https://doh.wa.gov/community-and-environment/contaminants/pfas, email our team at doheheha@doh.wa.gov, or call us at 360-236-3175.

Talk to a doctor, a nurse, or staff at your medical clinic if you have medical concerns.

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