REFERENCE 18

Fish Consumption Advisory
Middle Columbia River

Fact Sheet September 2013

Background

In 2008 and 2009 the Oregon Department of Environmental Quality (DEQ) conducted an ecological assessment in the lower middle Columbia River to address data gaps on the extent and concentrations of chemical contaminants.

Smallmouth bass and largescale sucker fish tissue samples were collected throughout a 150 mile section of the river from Ruckel Creek (the border between the Oregon counties of Multnomah and Hood River) upstream to the McNary Dam in Umatilla County.

The Oregon Health Authority (OHA) examined the fish tissue data to determine if eating fish from this area poses risks to human health.

OHA looked at a variety of chemical contaminants and found two human health concerns in resident fish: mercury and PCBs.

Middle Columbia River Fish Consumption Advisory

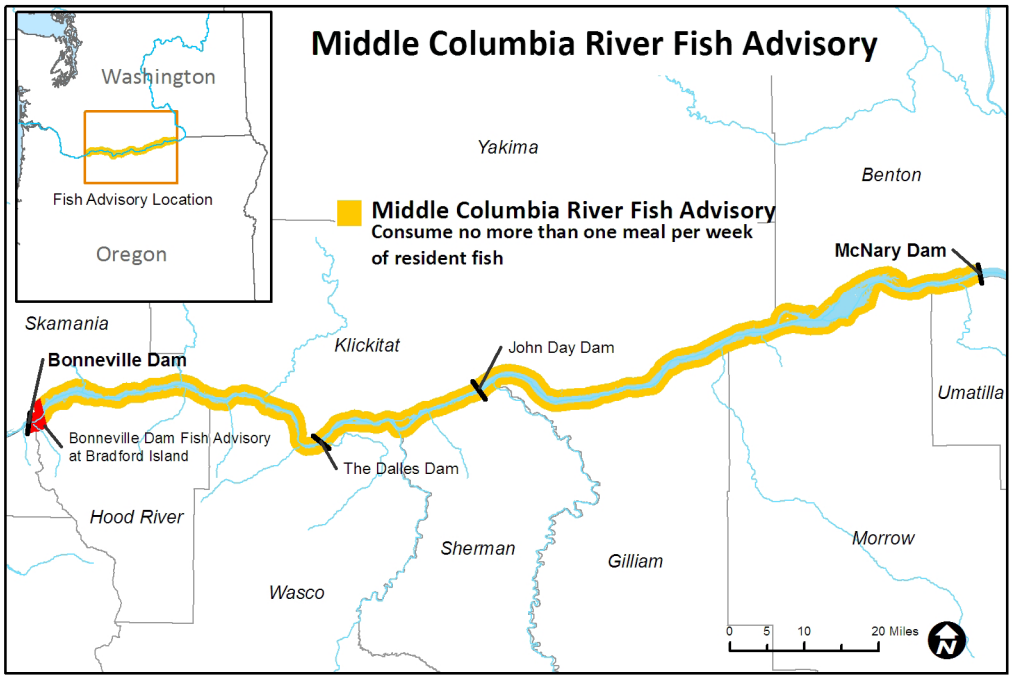
Due to moderate levels of mercury and PCBs, Oregon and Washington health officials recommend limiting the amount of resident fish species consumed from the middle Columbia River. Resident fish stay within a defined territory on the river and do not migrate out to the ocean.

Women who are or might become pregnant, nursing mothers, and young children are most at-risk for health effects from mercury and PCBs and should follow all of this advisory.

Resident Fish: Limit resident fish from Ruckel Creek to McNary Dam to no more than one meal per week—no other fish should be eaten that week.

Migratory Fish: Salmon, steelhead, lamprey, and shad are NOT included in this fish advisory. They are healthy choices from the Columbia River.

See the back of this fact sheet for complete advisory information.



Contaminants of Concern

Mercury is an element found in rocks and soil. It can also be released into the environment from industrial air pollution and mining operations, and through improper disposal of products that contain mercury such as transformers, thermostats, electrical switches, and fluorescent bulbs.

Mercury Health Impacts—Mercury can harm the central nervous (brain) and immune systems. If a baby or fetus is exposed to high levels of mercury the child may develop lifelong learning and behavioral problems. A fetus or child is more sensitive to mercury than an adult. If a person is exposed to mercury over time it can harm organs, including the kidneys and heart.

PCBs are a man-made group of chemicals once used in coolants and lubricants for transformers and in plastics. In 1977 PCBs were banned because they stay in the environment for a long time and can harm human and environmental health.

PCBs Health Impacts—PCBs consumed at high levels can impact men and women of all ages. PCBs may cause a variety of health problems depending on the amount a person is exposed to. If a baby or fetus is exposed to high levels of PCBs while developing, the child may have lifelong learning and behavioral problems. PCBs may also affect the immune and reproductive systems and thyroid hormones. PCBs may cause cancer in people.

How do Mercury and PCBs get into Columbia River Fish?

Mercury and PCBs enter rivers, lakes, and streams through rain or snow and are also directly released from industrial or natural sources. Once mercury and PCBs get into the water, they settle into the sediment. Bacteria in the sediment convert mercury into methylmercury, a more toxic form.

When fish eat smaller organisms these contaminants build up in the fish's muscle (fillet) and fat, and are added to any contaminants that were already there. The bigger and older a fish is, the more likely it is to have eaten lots of smaller, contaminated fish. People are exposed to mercury and PCBs when they eat contaminated fish.

Eat Fish, Be Smart, Choose Wisely

The American Heart Association recommends eating fish at least two times a week as part of a healthy diet. To get the health benefits of eating fish, make smart choices and choose fish low in chemical contaminants.

Removing fish from your diet won't eliminate your overall exposure to contaminants. Other foods have chemical contaminants in them, too, but mercury and PCBs are mainly found in fish.

Middle Columbia River Fish Consumption Advisory

Fish are nutritious, but resident fish from the middle Columbia River contain chemicals (mercury and PCBs) that may harm your health depending on how much you eat. **Everyone should follow this advisory, especially women who are or might become pregnant, nursing mothers, and young children. Babies and children are most at-risk.**

Health Benefits of Fish

The American Heart Association recommends eating fish at least two times per week as part of a healthy diet.

Fish is nutritious.
Fish is low in saturated fat and a good source of protein, vitamins, minerals, and omega-3 fatty acids.

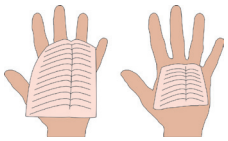
Fish is good for your heart.
Omega-3s found in fish help prevent heart disease and stroke by reducing blood pressure, inflammation, and blood clotting.

Fish is brain food.
Omega-3s may help relieve depression and may decrease the risk of Alzheimer's disease.

Omega-3s during pregnancy may help with the healthy development of a child's brain, retina, and nerve tissue.

To get the health benefits found in fish choose fish low in contaminants.

Preparing Fish the Healthy Way



Serving/Meal

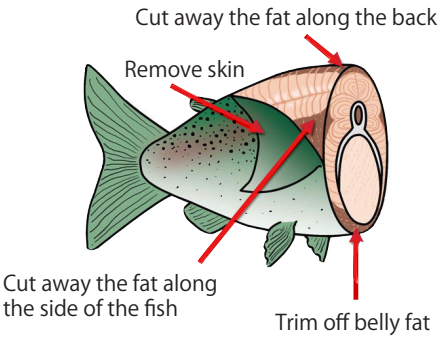
1 oz. for every 20 lbs. of body weight.

160 lb. Adult = 8 oz. (uncooked fish)

Fish are part of a healthy diet.
You can make it even healthier if you follow these tips. Some chemicals, like PCBs build up in the fat of fish and can be reduced when you prepare fish correctly:

- When cleaning fish, remove the skin, fat, and internal organs before cooking.
- Grill, bake, or broil fish so that the fat drips off while cooking.
- Eat younger and smaller fish (within legal limits).

Mercury can't be reduced by cleaning or cooking because it builds up in fish muscle (the fillet).



HEALTHY CHOICE		
Salmon		**Enjoy these fish**
Steelhead		Salmon, steelhead, lamprey, and shad are low in contaminants.
Lamprey		
Shad		
LIMIT	**OR**	**Meals Per Week**
Bass		**Eat only 1 meal per week** of any combination of these species: bass, bluegill, carp, catfish, crappie, sucker, sturgeon, walleye, or yellow perch.
Bluegill		
Carp		
Catfish		
Crappie		If you eat the recommended amount no other fish should be eaten that week.
Sucker		
Sturgeon		
Walleye		
Yellow Perch		
DO NOT EAT		
Northern Pikeminnow		DO NOT EAT

For More Information:

Oregon Health Authority
Toll Free: 1-877-290-6767
www.healthoregon.org/fishadv

Washington Department of Health
Fish Advisories Program
Toll Free: 1-877-485-7316
www.doh.wa.gov/fish

Fish Illustrations Credit: USFWS, Sturgeon Joseph R. Tomelleri

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