

Fish Consumption Advisories - February 2016

Should we eat the fish caught in Arizona?

Yes, just learn to eat them safely. Fish consumption advisories for mercury and pesticides are currently in effect for a number of water bodies in Arizona. These pollutants concentrate to high levels in fish by accumulating in fatty tissues or binding to muscle tissue, a process called bioaccumulation. This bioaccumulation may pose a threat to human health if these organisms are eaten on a regular basis in excess of fish consumption advisory guidelines.

Fish are a good source of low fat protein and as long as fish are not consumed at rates greater than those advised the likelihood of health risk is minimal. Eating smaller, younger fish which contain less mercury or other types of fish such as trout or bluegill can lower the amount of mercury you consume and increase the healthful benefits of eating fish. Fish consumption advisories have been issued in Arizona to inform the public about possible adverse health effects and to provide recommendations for how many fish meals can be consumed safely. Advisories may be directed at a particular subset of the population because some people are at greater risk (e.g., subsistence fishers, pregnant women and young children). Information about these advisories is shown in the table on the second page.

National mercury fish consumption advisory

In January 2001, the U.S. Environmental Protection Agency (EPA) issued an advisory for the entire nation concerning risks associated with mercury in freshwater fish for women who are pregnant or may become pregnant, nursing mothers and young children. EPA recommends that these most vulnerable groups

limit fish consumption to one meal per week – six ounces of cooked fish (eight ounces of uncooked fish) for an adult, and two ounces of cooked fish (three ounces uncooked) for a young child. The U.S. Food and Drug Administration has a companion advisory concerning the hazard posed by some fish purchased commercially (www.cfsan.fda.gov).

Arizona's fish consumption advisories are based on risks associated with consumption of fish from rivers, lakes and reservoirs throughout the state. The advisories and recommended consumption rates are based on the same risk analysis methods that EPA used for the national advisory. To further strengthen the program, Arizona now applies the national fish tissue standard of 0.3 mg/kg for methylmercury.

Is it safe to swim or wade in lakes with mercury or pesticide advisories?

Yes. Once mercury or pesticides enter an aquatic ecosystem such as a lake or stream, they accumulate quickly in the muscle tissue of living organisms such as fish and aquatic insects. The mercury remains within the living organisms and moves from organism to organism as part of the food chain cycle. In aquatic ecosystems the vast majority of these pollutants are contained in the organisms inhabiting that system leaving very small amounts in the water.

Is it safe to fish in these lakes?

Yes. Recreational fishing should not be affected by these advisories. It is safe for people of any age to handle fish in "catch and release" situations and, as stated previously, contact with the water should not pose a risk to humans or domestic animals.

What is ADEQ doing about the problems?

After extensive sampling, ADEQ removed the fish advisories for pesticides for the Gila River and its tributaries. Fish tissue data indicate concentrations of DDT, toxaphene and chlordane dropped more than 160 times the human health thresholds in the 1990's to 16 times less than the human thresholds in 2011 and 2012. The lifting of this advisory is credited to the cessation of the use of the pesticides in the 1970s, 1980s and 1990s.

Currently, ADEQ is conducting data collection, analysis and research to determine mercury sources in Arizona and develop feasible mitigation and remediation measures. Long-term strategies at the state and federal level include reducing mercury in consumer products, encouraging development of new technologies and facilitating proper disposal of products containing mercury. Reduction of mercury contamination will require participation from other agencies, including Arizona Game & Fish Department, Arizona Department of Health Services, EPA, U.S. Geological Survey, state and federal land managers, and other public and private partners.

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Waterbody Pollutant of Concern	Date Issued	Advised Consumption Rates (based on uncooked portion)
Alamo Lake - Mercury	February 2004	Pregnant women and children 16 years of age and younger: No consumption of largemouth bass, black crappie or channel catfish Women of reproductive age: One 8-ounce fish meal per month of largemouth bass, black crappie or channel catfish Adult women past reproductive age and adult men 16 years of age and older: Four 8-ounce fish meals per month of largemouth bass or black crappie. Six 8-ounce fish meals per month of channel catfish
Apache Lake - Mercury	February 2016	Children 12 years of age and younger: Half an ounce per week or 2 ounces per month of largemouth bass Adults: 2.4 ounces per week of largemouth bass
Arivaca Lake - Mercury	1996	Do not consume fish and other aquatic organisms caught from this lake
Bartlett Lake - Mercury	July 2015	Children 12 years of age and younger: Half an ounce per week or 2 ounces per month of largemouth bass or channel catfish Adults: 2.4 ounces per week of largemouth bass or channel catfish
Bartlett Lake - Mercury	February 2016	Children 12 years of age and younger: Half an ounce per week or 2 ounces per month of flathead catfish Adults: 2.4 ounces per week of flathead catfish
Coors Lake - Mercury	February 2004	Pregnant women and children 16 years of age and younger: No consumption of largemouth bass Women of reproductive age: One 8-ounce fish meal per month of largemouth bass Adult women past reproductive age and adult men 16 years of age and older: Four 8-ounce fish meals per month of largemouth bass
Lake Pleasant - Mercury	January 2009	Pregnant women and children 6 years of age and younger: No consumption of largemouth bass Women of reproductive age and children 7 to 15 years of age: One 8-ounce fish meal per month of largemouth bass Adult women past reproductive age and adult men 16 years of age and older: Five 8-ounce fish meals per month of largemouth bass
Lake Pleasant - Mercury	February 2016	Children 12 years of age and younger: Half an ounce per week or 2 ounces per month of striped bass Adults: 2.4 ounces per week of striped bass
Lake Powell - Mercury	October 2012	Pregnant women and children 6 years of age and younger: One 4-ounce meal per month of striped bass Women of reproductive age and children 7 to 15 years of age: Two 8-ounce meals per month of striped bass Adult women past reproductive age and adult men 16 years of age and older: eight 8-ounce fish meals per month of striped bass
Lyman Lake - Mercury	October 2002	Pregnant women and children 6 years of age and younger: No consumption of walleye, largemouth bass or channel catfish Children 7 to 15 years of age: no consumption of walleye or largemouth bass; one 8-ounce fish meal per month of channel catfish Women of reproductive age: One 8-ounce fish meal per month of walleye, largemouth bass or channel catfish Adult women past reproductive age and adult men 16 years of age and older: Three 8-ounce fish meals per month of walleye and largemouth bass; five 8-ounce fish meals per month of channel catfish
Parker Canyon Lake - Mercury	October 2002	Pregnant women and children 6 years of age and younger: No consumption of largemouth bass, bluegill or pike Children 7 to 15 years of age: no consumption of largemouth bass; one 8-ounce fish meal per month of bluegill or pike Women of reproductive age: One 8-ounce fish meal per month of largemouth bass or bluegill; two 8-ounce fish meals per month of pike Adult women past reproductive age and adult men 16 years of age and older: Three 8-ounce fish meals per month of largemouth bass; five 8-ounce fish meals per month of bluegill; six 8-ounce fish meals per month of pike
Peña Blanca Lake - Mercury	1995	Do not consume fish and other aquatic organisms caught from this lake
Roosevelt Lake - Mercury	January 2009	Pregnant women and children 6 years of age and younger: No consumption of largemouth bass or channel catfish Women of reproductive age and children seven to 15 years of age: One 8-ounce fish meal per month of largemouth bass or channel catfish Adult women past reproductive age and adult men 16 years of age and older: Five 8-ounce fish meals per month of largemouth bass or channel catfish
Tonto Creek (downstream of the northern boundary of HellsGate Wilderness at Bear Flat Campground) - Mercury	July 2011	Do not consume smallmouth bass, green sunfish or black bullhead catfish For common carp in this area: • Pregnant women and children 16 years of age and younger: No consumption • Children 7 to 15 years of age: One 8-ounce fish meal per month • All adults (16 years of age and older): Two 8-ounce fish meals per month
Soldier Lake Soldier Annex Lake and Long Lake - Mercury	July 2003	Do not consume any fish caught from these lakes
Upper and Lower Lake Mary - Mercury	May 2002	Do not consume walleye fish Limit consumption of all other fish species to one 8-ounce fillet per month