FAQ's Associated with the Alan Henry Reservoir Fish Consumption Advisory

Prepared by the Seafood and Aquatic Life Group
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Q: What is mercury?

A: Mercury is an element that occurs naturally in the environment in several forms. In the elemental form, mercury is a shiny silver-white liquid. Mercury can combine with other elements such as chlorine, carbon, or oxygen to form mercury compounds. These compounds are called organic mercury if they contain carbon and inorganic mercury if they do not. All forms of mercury are poisonous. The type of mercury found in fish is in the organic form and is called methylmercury.

Q: How does mercury enter the environment?

A: Mercury is found throughout the environment as a result of normal breakdown of the earth's crust by wind and water. Air, water, and soil can contain mercury both from natural sources and from human activity. Inorganic mercury can enter the air from deposits of ore that contain mercury, from the burning of fuels or garbage, and from the emissions of factories that use mercury. Mercury released to the air can be carried for long distances.

Q: How does mercury get into fish?

A: Mercury in water settles to the bottom where it mixes with the sediment. Here it can be changed into an organic form called methylmercury and enter the food chain. Small aquatic plants and animals can absorb the methylmercury in the sediment. Small fish eat these plants and tiny animals and larger fish eat smaller fish. At each step, the concentration of mercury increases. Higher amounts of methylmercury are generally found in older fish and predatory fish.

Q: How can mercury affect my health?

A: Methylmercury can harm the brain and nervous system of adults and children. Young children are particularly sensitive to mercury because their bodies are still developing. The brain and nervous system in a developing fetus can be permanently damaged if the mother eats food containing high enough levels of mercury. In young children exposed prenatally to low levels, reported symptoms have included developmental effects such as late walking (>18 months) or late talking (>24 months). Exposure to higher levels may result in abnormalities of the central nervous system,

retardation, or seizures. Some children may experience a type of allergic reaction to mercury, with symptoms such as discoloration and itching of hands and feet, insomnia, and sensitiveness to light. Adults exposed to increasing levels of methylmercury may progressively experience nervous system disorders including tingling of the fingers and toes, irritability, memory loss, depression, insomnia, difficulty in walking or speech, visual changes, or hearing defects.

Q: How can methylmercury enter and leave my body?

A: Organic mercury in fish or other foods that you might eat enters your bloodstream easily and goes rapidly to other parts of your body, including the brain. Organic mercury that is ingested is eliminated from the body primarily through the feces. The half-life for elimination of mercury is approximately one to two months. Mercury may be found in hair or blood samples. Since there is no placental barrier to mercury, the fetus is at increased risk for methylmercury poisoning.

Q: Can I be tested to see if I have mercury in my body?

A: Blood or hair samples can be taken in your doctor's office and tested in a laboratory. The amount of mercury that is found may be used to predict the potential for adverse health effects. Blood tests are useful during and shortly after mercury poisoning. Once mercury is in the hair it remains until the hair is cut.

Q: Are all fish in Alan Henry Reservoir equally affected?

A: No. The Texas Department of State Health Services has collected and analyzed nine species of fish from Alan Henry Reservoir (black crappie, blue catfish, channel catfish, common carp, flathead catfish, freshwater drum, largemouth bass, spotted bass, and white crappie). Of these fish, blue catfish, crappie, flathead catfish, largemouth bass, and spotted bass were consistently shown to contain elevated levels of mercury. In general, smaller, younger fish contain lower levels of mercury than older fish; predatory fish contain higher levels of mercury than non-predatory fish.

Q: What recommendation has the Texas Department of State Health Services made to protect human health?

A: A consumption limit of two meals per month of blue catfish, crappie, flathead catfish, largemouth bass, and/or spotted bass has been recommended. Each meal should not exceed eight ounces for adults. Women who are nursing, pregnant, or who may become pregnant and children under twelve years old should not consume blue catfish, crappie, flathead catfish, largemouth bass, and/or spotted bass from Alan Henry Reservoir. No limitations were recommended for other species.

Q: I have been eating these fish all my life. Will I have adverse health effects?

A: The recommended consumption limits made by the Texas Department of State Health Services have allowed a margin of safety below those levels that could result in adverse health effects; however, eating more than the recommended amount of blue catfish, crappie, flathead catfish, largemouth bass, and/or spotted bass from Alan Henry Reservoir does not necessarily mean that a person will have adverse health effects.

Q: Should I stop eating fish?

A: No. Fish are an important source of protein in the diet. The Texas Department of State Health Services only recommends that you limit consumption (excluding women of child bearing age and children under twelve years old) of those species, which contain the highest levels of mercury (blue catfish, crappie, flathead catfish, largemouth bass, and spotted bass).

Q: Why is it safe to eat catfish and not bass?

A: Different species eat different types of food. Mercury levels will be higher in species that are predators and eat smaller fish.

Q: How can I reduce the amount of mercury that I get from Alan Henry Reservoir fish?

A: In general, when you have a choice you should eat smaller fish and eat fish other than blue catfish, crappie, flathead catfish, largemouth bass, and spotted bass from Alan Henry Reservoir.

Q: Will cooking or cleaning fish a certain way reduce the mercury level and make the fish safe to eat?

A: No. Mercury levels are not affected by cooking, and since the mercury is in the muscle tissue, which is the portion of the fish we eat, cleaning or filleting will not make the fish safe.

Q: I live on or near a lake in Texas that is not listed in your advisory. I am worried about mercury in the fish in my lake. What should I do?

A: If you are eating fish from a lake we have not sampled and you are concerned, you should follow the consumption recommendations we have provided in the advisory for the other lakes. These recommendations would be protective if the levels of mercury in

fish from your lake or river are similar to the ones we have sampled. Choosing smaller fish and fish of other species as indicated above will also reduce any risk that exists. Generally, smaller fish have lower levels of contaminants.

Q: Will additional sampling be conducted?

A: Yes. As resources become available, the Texas Department of State Health Services will continue to monitor Alan Henry Reservoir for mercury and other contaminants that could pose a threat to human health.

Q: Should we stop fishing for crappie, gar, and largemouth bass?

A: No. Recreational fishing for blue catfish, crappie, flathead catfish, largemouth bass, and spotted bass does not need to stop. Catching and releasing larger fish or consuming smaller legal fish in amounts below those recommended by the Texas Department of State Health Services poses no health risk from mercury poisoning.

Q: Should I be concerned about mercury while conducting contact recreation activities like fishing, boating or swimming?

A: There is no risk of mercury poisoning while swimming or participating in other contact recreational activities. Mercury levels in the water are low. The concern is for consumption of fish that concentrate mercury in their tissue.