



INFORMATION ABOUT EATING FISH AND SHELLFISH FROM CLEAR LAKE

Office of Environmental Health Hazard Assessment (OEHHA)
California Environmental Protection Agency
May 2014; updated August 2018

Why did OEHHA update the advisory for eating fish and shellfish from Clear Lake?

OEHHA first issued an advisory for Clear Lake in 1987 based on findings of mercury in fish collected from the lake. OEHHA updated the original advisory in 2005 and 2009 based on more studies, but the findings did not include traditional Tribal aquatic food resources at Clear Lake. In response to requests from members of the Big Valley Rancheria Band of Pomo Indians, OEHHA sought information on mercury in types of fish and shellfish important to Tribal members. After evaluating the new information, OEHHA expanded the Clear Lake advisory to provide guidelines to the public for eating sport fish, including fish and shellfish of importance to Tribal members.

Why should I eat fish?

Fish, in general, are:

- An important part of a healthy, well-balanced diet. The American Heart Association recommends eating at least two servings of fish each week.
- A good source of protein, vitamins, and heart healthy omega-3 fatty acids. It is important for pregnant women to eat fish because omega-3 fatty acids help the baby's brain develop.

How does mercury get into fish and shellfish?

- Mercury is a metal that comes from natural sources, mining, and air fallout from burning coal and other fuels.
 - The Northern California Coast Range, where Clear Lake is located, is naturally rich in mercury and other ores.
 - The Sulphur Bank Mercury Mine, located on the shore of Clear Lake, has caused mercury contamination of the lake sediments.
- Once mercury gets into the water, it settles to the bottom where bacteria in the mud or sand change it to the organic form "methylmercury."
- Methylmercury, a more toxic form of mercury, gets into fish and shellfish through the food they eat. It is passed up the food chain from small plants and animals to larger, older fish, where it builds up.

What are the health concerns for people eating fish with mercury?

- Mercury—in the form methylmercury—can harm the brain and nervous system of people, especially unborn babies and children.
 - Women over 45 years and men have lower risk and can eat more fish.

How do mercury levels in fish and shellfish from Clear Lake compare to other water bodies in California?

- The mercury levels in the fish in Clear Lake are similar to many other lakes in northern California and are not among the highest.
- As in many lakes, largemouth bass have the highest mercury levels, and thus the consumption advice is more restrictive for bass than for other fish species.
- Many types of fish and shellfish have low or moderate mercury levels and can be eaten at least once a week, and some types can be eaten up to every day (see the Guides below).

How did OEHHA determine the guidelines for fish and shellfish from Clear Lake?

- OEHHA compared mercury levels in fish and shellfish from Clear Lake to acceptable levels of human exposure.
- OEHHA's guidelines balance the risks and benefits of eating fish and shellfish.

What else can I do to protect my health and my family's?

- Eat a variety of fish, especially those low in chemicals and high in omega-3s.
- Eat smaller (younger) fish of legal size.
- Eat only the skinless fillet or meat portion of fish and shellfish you catch.
- Thoroughly cook the fish and allow the juice to drain away.
- Learn about OEHHA's guidelines for eating fish from other water bodies in California:
 - Visit www.oehha.ca.gov (click on "FISH", then "Fish Advisories"), or call OEHHA at 916-324-7572 or 510-622-3170.
 - Check the Freshwater or Ocean Sport Fishing Regulations booklets from the California Department of Fish and Wildlife, or visit www.dfg.ca.gov/regulations



Women
(18-45 Years)

Children
(1-17 Years)

7 TOTAL
SERVINGS
A WEEK

OR

3 TOTAL
SERVINGS
A WEEK

OR

1 TOTAL
SERVING
A WEEK

0 DO NOT
EAT

Serving Size

A serving of fish is about the size and thickness of your hand. Give children smaller servings.

For Adults



For Children



Women
(46+ Years)

Men
(18+ Years)

7 TOTAL
SERVINGS
A WEEK

OR

7 TOTAL
SERVINGS
A WEEK

OR

3 TOTAL
SERVINGS
A WEEK

OR

1 TOTAL
SERVING
A WEEK

A GUIDE TO EATING FISH

from
CLEAR LAKE
(LAKE COUNTY)

Eat the Good Fish

Eating fish that are low in chemicals may provide health benefits to children and adults.



Avoid the Bad Fish

Eating fish with higher levels of chemicals like mercury or PCBs may cause health problems in children and adults.



Choose the Right Fish

Chemicals may be more harmful to unborn babies and children.



Asian Clam (Corbicula)



Winged Floater Mussel



Inland Silverside



Threadfin Shad



Blackfish



Bullhead



Catfish



Carp



Crappie



Crayfish



Mosquitofish



Prickly Sculpin



Sunfish Species

*Clear Lake Hitch removed from advisory. See note below.



Black Bass Species



California Office of Environmental Health Hazard Assessment

web www.oehha.ca.gov/fish
email fish@oehha.ca.gov
phone (916) 324-7572

Inland silverside photo: North American Native Fishes Association.
Threadfin shad photo: Ulfard Thomas. Ohio Department of Natural Resources.

Eat only the skinless fillet



Some chemicals are higher in the skin, fat, and guts.

Eat only the meat



*Clear Lake Hitch:

No take permitted per the California Endangered Species Act.

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