



INFORMATION ABOUT EATING FISH FROM THE SACRAMENTO RIVER AND NORTHERN DELTA

(SHASTA, TEHAMA, BUTTE, GLENN, COLUSA, SUTTER,
YOLO, SACRAMENTO, AND SOLANO COUNTIES)

Office of Environmental Health Hazard Assessment (OEHHA)

California Environmental Protection Agency

May 2020

Why did OEHHA update the advisory for eating fish from the Sacramento River and Northern Delta?

OEHHA updated the advisory for the Sacramento River and Northern Delta because additional information on mercury, PBDE, and PCB levels in fish tissue has become available. This advisory supersedes the previous advisory for eating fish from the Sacramento River and Northern Delta and is part of an ongoing effort by OEHHA to provide safe-eating advice for fish in different California water bodies. This advisory includes the Sacramento River from just below Shasta Lake to where it joins the San Joaquin River in Pittsburg, and for creeks, sloughs, and other water bodies in the Northern Delta that are north of Highway 12. A separate advisory is available for the [Central and South Delta](#) for waters south of Highway 12.

Why should I eat fish?

- Low-contaminant fish are an important part of a healthy, well-balanced diet. The American Heart Association recommends eating at least two servings of fish each week.
- Fish are a good source of protein and vitamins, and are a primary dietary source of heart-healthy omega-3 fatty acids. Eating low-contaminant fish while pregnant may help the baby's brain develop.

Which chemicals are of concern for people eating fish from the Sacramento River and Northern Delta?

- Mercury
 - Mercury is a metal that comes from natural sources, mining, and air fallout from burning coal and other fuels. It is the most commonly found contaminant in fish.
 - Too much methylmercury, the form of mercury found in fish, can harm the brain, especially in fetuses, babies, and children. Mothers can pass methylmercury to their babies during pregnancy.
 - Because fetuses, babies, and children are especially sensitive to mercury, OEHHA has one set of advice for the amount of mercury-containing fish that women age 18-49 years and children should eat, and another set of advice for women 50 years and older and men 18 years and older.

- Polybrominated diphenyl ethers (PBDEs)
 - PBDEs are a class of flame retardants once used in a variety of household products such as couches, mattresses, televisions, cell phones, computers, car seats, and dashboards.
 - High levels of PBDEs may interfere with the body's natural hormones, cause harm to the developing fetus or infant, decrease fertility, and increase cancer risk.
 - Mothers can pass PBDEs to their babies during pregnancy and through breast milk.

- Polychlorinated Biphenyls (PCBs)
 - PCBs are industrial chemicals. While banned in the 1970s, they persist for many years in the environment and are still found in the air, sediment, and water from spills, leaks, and improper disposal.
 - High levels of PCBs can increase cancer risk. PCBs may also harm a developing fetus, which can include effects on growth and learning. Women can pass PCBs on to their babies during pregnancy and breastfeeding.
 - PCBs can build up to very high levels in the skin, fat, and some internal organs of fish. That is why OEHHA recommends eating only skinless fillet (meat) of fish.

How did OEHHA determine the consumption guidelines for fish from the Sacramento River and Northern Delta?

- OEHHA compared chemical levels in fish caught from the Sacramento River and Northern Delta to levels that are considered safe for human consumption.

- OEHHA's consumption guidelines balance the risks and benefits of fish consumption.

What does OEHHA recommend for people who want to eat fish from the Sacramento River and Northern Delta?

- OEHHA recommends the amounts and types of fish that may be eaten each week as "servings." A serving is about the size and thickness of your hand for fish fillets. Give children smaller servings. For smaller fish species, several individual fish may be required to yield a serving.

- Women 18-49 years and children 1-17 years
 - Should not eat black bass species, catfish, Sacramento Pikeminnow, Striped Bass, or White Sturgeon
 - May eat:
 - 1 total serving per week of Common Carp, crappie, crayfish, Goldfish, Hardhead, Sacramento Sucker, or sunfish species, or
 - 2 total servings per week of bullhead, Chinook Salmon, or Steelhead Trout, or
 - 3 total servings per week of American Shad or small baitfish and shrimp (including Bigscale Logperch, Crangon Shrimp, Golden Shiner, Inland

Silverside, Mississippi Silverside, Mosquitofish, Red Shiner, Shimofuri Goby, Threadfin Shad, and Yellowfin Goby), or

- 5 total servings per week of Rainbow Trout
- Women 50 years and older and men age 18 years and older
 - May eat:
 - 1 total serving per week of black bass species, Sacramento Pikeminnow, or White Sturgeon, or
 - 2 total servings per week of catfish, Common Carp, crappie, crayfish, Goldfish, Hardhead, Sacramento Sucker, or Striped Bass, or
 - 4 total servings per week of bullhead or sunfish species, or
 - 5 total servings per week of Rainbow Trout, or
 - 7 total servings per week of American Shad, Chinook Salmon, small baitfish and shrimp (as listed above), or Steelhead Trout

What else can I do to protect my health and the health of my family?

- Eat a variety of fish.
- Eat smaller (younger) fish of legal size.
- Eat only the skinless fillet or meat portion of fish.
- Thoroughly cook the fish, allow the juice to drain away.
- Learn about OEHHA's guidelines for eating sport fish in California:
 - Visit <https://oehha.ca.gov/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 <https://www.wildlife.ca.gov/Regulations>



Women
(18-49 Years)

Children
(1-17 Years)

5 TOTAL SERVINGS A WEEK

OR

3 TOTAL SERVINGS A WEEK

OR

2 TOTAL SERVINGS A WEEK

OR

1 TOTAL SERVING A WEEK

0 DO NOT EAT

California Office of Environmental Health Hazard Assessment

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

A GUIDE TO EATING FISH from the SACRAMENTO RIVER AND NORTHERN DELTA

INCLUDES THE SACRAMENTO RIVER (SHASTA, TEHAMA, BUTTE, GLENN, COLUSA, SUTTER, YOLO, SACRAMENTO, AND SOLANO COUNTIES) AND ALL WATER BODIES IN THE DELTA NORTH OF HIGHWAY 12

WOMEN 18 - 49 YEARS AND CHILDREN 1 - 17 YEARS

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.



Rainbow Trout
♥ high in omega-3s



American Shad
♥ high in omega-3s

Small Baitfish and Shrimp
*See report for list of species



Bullhead



Chinook (King) Salmon
♥ high in omega-3s



Steelhead Trout
♥ high in omega-3s



Common Carp



Crappie



Crayfish



Goldfish



Hardhead



Sacramento Sucker



Sunfish Species



Black Bass Species



Catfish



Sacramento Pikeminnow



Striped Bass



White Sturgeon

Serving Size

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

For Adults



For Children



Eat only the skinless fillet



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

Eat only the meat



Updated 05/2020



Women
(50+ Years)

Men
(18+ Years)

7 TOTAL
SERVINGS
A WEEK

OR

5 TOTAL
SERVINGS
A WEEK

OR

4 TOTAL
SERVINGS
A WEEK

OR

2 TOTAL
SERVINGS
A WEEK

OR

1 TOTAL
SERVING
A WEEK



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Environmental Health
Hazard Assessment

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Chinook (King) Salmon
♥ high in omega-3s



Small Baitfish and Shrimp
*See report for list of species



Steelhead Trout
♥ high in omega-3s



Rainbow Trout
♥ high in omega-3s



Bullhead



Sunfish Species



Catfish



Common Carp



Crappie



Crayfish



Goldfish



Hardhead



Sacramento Sucker



Striped Bass
♥ high in omega-3s



Black Bass Species
♥ high in omega-3s



Sacramento Pikeminnow



White Sturgeon

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

For Adults



For Children



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