



INFORMATION ABOUT EATING FISH FROM CALIFORNIA LAKES AND RESERVOIRS WITHOUT SITE-SPECIFIC ADVICE

Office of Environmental Health Hazard Assessment (OEHHA)
California Environmental Protection Agency
August 2021

Why did OEHHA issue the 2021 updated statewide advisory for eating fish from California Lakes and Reservoirs *without* Site-Specific Advice?

OEHHA updated the statewide advisory for [California Lakes and Reservoirs *without* Site-Specific Advice](#) because additional data became available allowing for the addition of seven species and updating advice for other species. This advisory supersedes the previous 2013 advisory and is part of an ongoing effort by OEHHA to provide safe-eating advice for fish in different California water bodies.

What is OEHHA's fish advisory program?

OEHHA is responsible for evaluating potential public health risks from chemical contamination of sport fish. This includes issuing fish consumption advisories, when appropriate. Fish advisories are guidelines that recommend how often you can safely eat fish caught from water bodies in California. OEHHA has issued more than 100 site-specific advisories for lakes, reservoirs, rivers, bays, and the coast. In 2013, OEHHA issued its original statewide advisory for all lakes and reservoirs that did not have site-specific advice, which has now been updated.

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.

What are the primary chemicals of concern for people eating fish from California lakes and reservoirs?

- 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.
- 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.
 - PCBs can increase cancer risk. PCBs may also harm the 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 this statewide advisory?

- OEHHA compared mercury and PCB levels in fish caught from 343 and 297 lakes, respectively, 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 California Lakes and Reservoirs without Site-Specific Advice?

- 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, Brown Trout over 16 inches, catfish species, Common Carp, Goldfish, Sacramento Pikeminnow (any size), Sacramento Sucker, or Striped Bass
 - May eat:
 - 1 total serving per week of Brown Trout 16 inches or less, bullhead species, crappie species, or sunfish species, or
 - 2 total servings per week of Inland Silverside, Rainbow Trout, or Threadfin Shad
- Women 50 years and older and men age 18 years and older
 - Should not eat Sacramento Pikeminnow over 16 inches
 - May eat:

- 1 total serving per week of black bass species, Brown Trout over 16 inches, catfish species, Common Carp, Goldfish, Sacramento Pikeminnow 16 inches or less, Sacramento Sucker, or Striped Bass, or
- 2 total servings per week of bullhead species, crappie species, or sunfish species, or
- 3 total servings per week of Brown Trout 16 inches or less, or
- 4 total servings per week of Inland Silverside, Rainbow Trout, or Threadfin Shad

Where does this advisory apply?

- Follow this advice for:
 - California lakes and reservoirs that do not have a site-specific fish advisory
 - Fish species not included in the advisory for a specific California lake or reservoir but are in the advisory for California Lakes and Reservoirs without Site-Specific Advice.

How long is the advisory in effect?

This advisory is effective starting August 10, 2021 and does not expire. Chemical contaminant levels in fish do not change much over time; the advisory remains in effect until an update is issued.

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)

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* CALIFORNIA LAKES AND RESERVOIRS WITHOUT SITE-SPECIFIC ADVICE

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.



Inland Silverside



Rainbow Trout

♥ high in omega-3s



Threadfin Shad



Brown Trout 16
inches or less

♥ high in omega-3s



Bullhead Species



Crappie Species



Sunfish Species



Black Bass Species



Catfish Species



Goldfish



Sacramento Sucker



Brown Trout over 16 inches



Common Carp



Sacramento Pikeminnow



Striped Bass

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 08/2021



Women
(50+ Years)

Men
(18+ Years)

4 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

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from CALIFORNIA LAKES AND RESERVOIRS

WITHOUT SITE-SPECIFIC ADVICE

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 Inland Silverside



Rainbow Trout
♥ high in omega-3s

 Threadfin Shad



Brown Trout 16 inches or less
♥ high in omega-3s



Bullhead Species



Crappie Species



Sunfish Species



Black Bass Species
♥ high in omega-3s



Catfish Species



Goldfish



Sacramento Sucker



Brown Trout over 16 inches
♥ high in omega-3s



Common Carp



Sacramento Pikeminnow
16 inches or less



Striped Bass
♥ high in omega-3s



Sacramento Pikeminnow
over 16 inches

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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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