

INFORMATION ABOUT FISH AND SHELLFISH FROM SAN FRANCISCO BAY

What are “Safe Eating Guidelines?”

Chemicals in our environment can end up in the fish we eat. OEHHA uses findings of chemical levels in fish to provide Safe Eating Guidelines for fish caught in California water bodies. These guidelines help people choose fish that are safe to eat.

Why are there safe eating guidelines for San Francisco Bay fish and shellfish?

Fish from San Francisco Bay have been monitored for chemical contaminants every three years since 1994 when a pilot study was first conducted. After the pilot study, OEHHA issued interim consumption guidelines for San Francisco Bay. OEHHA is updating the advice using newer data, based on improved analytical methods and a protocol consistent with OEHHA’s other recent advisories. The monitoring results showed that:

- Sharks had high mercury levels.
- Shiner perch had high levels of PCBs.
- Striped bass and white sturgeon contained a mix of medium to high levels of mercury and PCBs.
- Mercury and PCBs were lower in the fillet (muscle tissue) of other species tested, including brown rockfish, California halibut, Chinook (king) salmon, jacksmelt, red rock crab, and white croaker.

OEHHA used the information from the monitoring studies to decide how much fish and shellfish from San Francisco Bay is safe to eat. The advice is shown in the “Guide to Eating San Francisco Bay Fish and Shellfish.”

Some bay fish species such as salmon, striped bass, and white sturgeon migrate between freshwater (in the Delta or rivers that empty into San Francisco Bay), the bay, and the ocean. The safe eating guidelines also apply to these fish species caught in any of these water bodies.

How do chemicals such as mercury and PCBs get into fish and shellfish?

Chemicals enter water bodies, including San Francisco Bay, from spills, the air, or water runoff from land.

- Mercury is a metal that comes from natural sources, mining, and air fallout from burning coal and other fuels.
- PCBs are a group of man-made industrial chemicals. They get in air and water from spills, leaks, and improper disposal of materials containing PCBs.

Chemicals enter fish through the food they eat.

What are the health concerns from eating fish with mercury or PCBs?

Too much methylmercury, the form of mercury in fish, can change how the brains of babies and children develop. Mothers can pass this methylmercury to their babies during pregnancy.

High levels of PCBs can cause health problems in young children and adults. Some forms of PCBs cause cancer in animal studies. PCB can build up to very high levels in the skin and organs of fish. That is why OEHHA recommends eating only the skinless fillet (meat) of fish. OEHHA also recommends eating only the meat of crabs and avoiding the internal organs.

Should I continue eating fish and shellfish?

Yes! Certain types of fish and shellfish from San Francisco Bay are safe to eat if you follow OEHHA's guidelines.

Fish, in general, is:

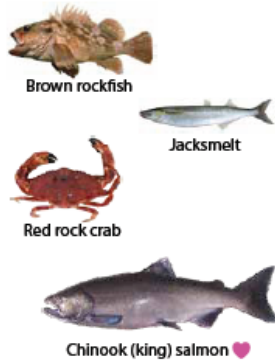
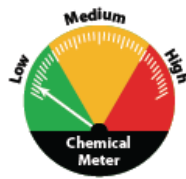
- An important part of a healthy well-balanced diet. The American Heart Association recommends eating at least two servings of fish each week.
- A good source of protein, vitamins, and heart healthy omega-3 fatty acids. It is important for pregnant women to eat fish because omega-3 fatty acids help the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

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

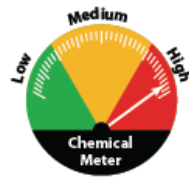
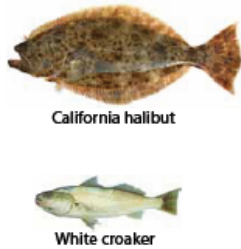
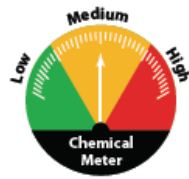
- Follow the advice in "A guide to eating San Francisco Bay fish and shellfish."
- Eat a variety of fish, especially those low in chemicals and high in omega-3s.
- Eat smaller (younger) fish of legal size.
- Eat only the skinless fillet or meat portion of fish and shellfish you catch.
- Thoroughly cook the fish, allow the juice to drain away.
- Read about Safe Eating Guidelines for other water bodies in California:
 - Fresh Water or Ocean Sport Fishing Regulations booklets from the California Department of Fish and Game, or www.dfg.ca.gov/regulations
 - Call OEHHA at (916) 323-7319 or (510) 622-3170, or visit www.oehha.ca.gov (click on "Fish", then "Advisories")

A guide to eating San Francisco Bay fish and shellfish

Women 18 - 45 and children 1 - 17



♥ = High in Omega-3s



Safe to eat
2 servings per week



Safe to eat
1 serving per week

Do not eat
AND

Do not eat any fish from the
Lauritzen Channel in
Richmond Inner Harbor

What is a serving?



For Adults For Children

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

- Eat only the skinless fillet. PCBs are in the fat and skin of the fish.
- Cook thoroughly and allow the juices to drain away.
- For crab, eat only the meat.

♥ Why eat fish?

Eating fish is good for your health. Fish have Omega-3s that can reduce your risk for heart disease and improve how the brain develops in unborn babies and children.

What is the concern?

Some fish have high levels of PCBs and mercury. PCBs might cause cancer. Mercury can negatively affect how the brain develops in unborn babies and children. It is especially important for women who are pregnant or breastfeeding to follow these guidelines.

Guidelines for Chinook (king) salmon, striped bass, and white sturgeon apply to these species caught within their migratory range including the ocean, San Francisco Bay, the Delta, and rivers that flow into the Delta.

Consumption advice should not be combined. Fish consumers can choose one fish from the “1 serving a week” category to eat that week, or combine two types of fish or shellfish from the “2 servings a week” category in that week. Then they should not eat any other fish from any location until the next week.

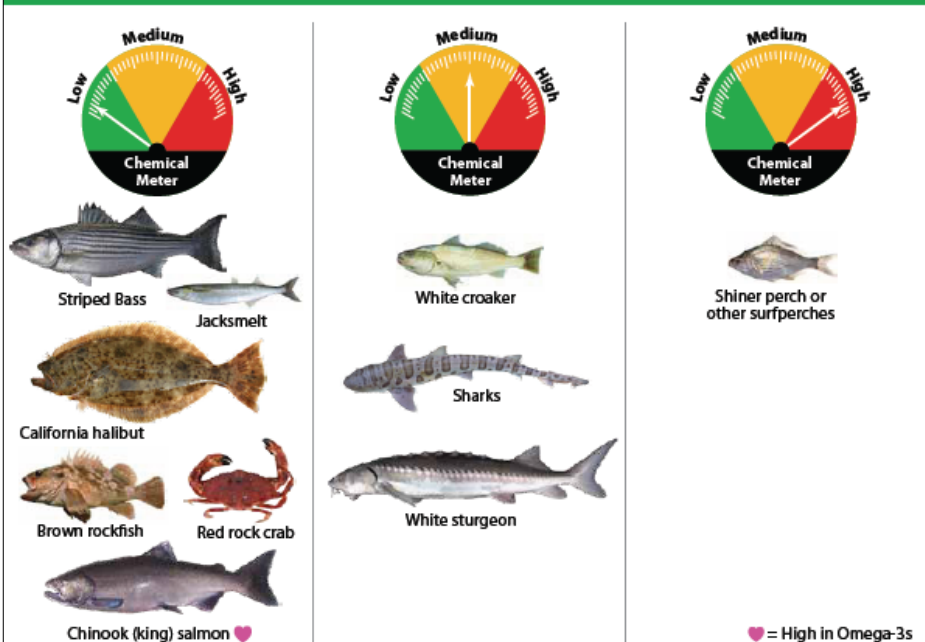
For more information, check the following Web sites:

General advice on how to limit your exposure to chemical contaminants in sport fish: <http://www.oehha.ca.gov/fish>

Guidelines for fish and shellfish from other California water bodies: <http://oehha.ca.gov/fish/advisories>

A guide to eating San Francisco Bay fish and shellfish

Men over 17 and women over 45



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<p>Safe to eat 2 servings per week</p> <p>Brown rockfish OR red rock crab – 5 servings per week OR Salmon – 7 servings per week</p>	<p>OR</p>	<p>Safe to eat 1 serving per week</p>	<p>Do not eat AND</p> <p>Do not eat any fish from the Lauritzen Channel in Richmond Inner Harbor</p>
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California Office of Environmental Health Hazard Assessment • www.oehha.ca.gov/fish.html • (916) 327-7319 or (510) 622-3170 5-11

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