



Information about Eating Fish from San Diego Bay

Office of Environmental Health Hazard Assessment (OEHHA)

California Environmental Protection Agency

October 2013

Why did OEHHA issue guidelines for eating fish from San Diego Bay?

Several programs collected fish from San Diego Bay and analyzed them for chemicals of potential concern for human health. The Office of Environmental Health Hazard Assessment (OEHHA) evaluated the results of these studies and found mercury and PCBs in some fish species at levels of concern for fish consumers. OEHHA is providing these guidelines to help people choose which types of fish are safer to eat.

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

Chemicals enter water bodies, including San Diego Bay, from spills, the air, or water runoff from land. Chemicals enter fish through the food they eat.

- Mercury is a metal that comes from natural sources, mining, and air fallout from burning coal and other fuels.
 - Once mercury gets into 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, is passed up the food chain from small aquatic organisms and builds up in larger and older fish.
- PCBs are a group of man-made chemicals used in electrical transformers, plastics, and lubricating oils.
 - PCBs were banned for most uses in 1979.
 - Because they do not break down easily, they stay in the environment for a long time.
 - Spills, leaks, and improper disposal are the main ways that PCBs enter the water.
 - PCBs are also passed up the food chain.

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

- PCBs affect many body functions resulting in a variety of health problems, including effects on the nervous system. PCBs have been found to cause cancer in animal studies.

- Mercury—in the form methylmercury—can harm the brain and nervous system of people, especially unborn babies and children.

How did OEHHA determine the guidelines for fish from San Diego Bay?

- OEHHA compared chemical levels in fish from San Diego Bay to acceptable levels of human exposure.
- OEHHA's consumption guidelines balance the risks and benefits of fish consumption.

Should I continue eating fish?

Yes! 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.

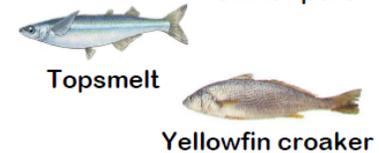
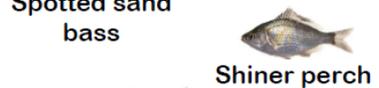
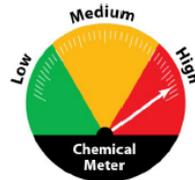
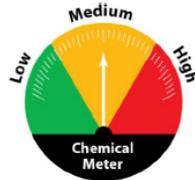
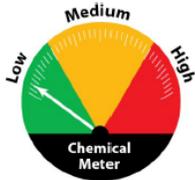
Certain types of fish and shellfish from San Diego Bay can be eaten more frequently than others. Follow OEHHA's advice in the guides on the next two pages.

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, allow the juice to drain away.
- Learn about OEHHA's guidelines for eating fish from other water bodies in California:
 - Call OEHHA at (916) 323-7319 or (510) 622-3170, or visit www.oehha.ca.gov (click on "Fish," then "Fish Advisories")
 - Check the Freshwater or Ocean Sport Fishing Regulations booklets from the California Department of Fish and Wildlife, available at www.dfg.ca.gov/regulations

A Healthy Guide to Eating Fish from San Diego Bay

Women 18-45 years and children 1-17 years



2 servings a week



1 serving a week

Do not eat

Eat only the skinless fillet.
PCBs are in the fat and skin of the fish.



- Remove and throw away the skin before cooking.
- Cook thoroughly and allow the juices to drain away.

What is a serving?



For Adults For Children

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

♥ Why eat fish?

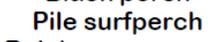
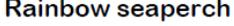
Eating fish is good for your health. Fish have Omega-3s that can reduce your risk for heart disease and improve how the brain develops in unborn babies and children.

What is the concern?

Some fish have high levels of mercury or PCBs. Mercury can harm the brain, especially in unborn babies and children. PCBs can cause cancer.

A Healthy Guide to Eating Fish from San Diego Bay

Women over 45 years and men can safely eat more fish

 Diamond turbot	 Spotted sand bass	
 Spotted turbot	 Barred sand bass	 Shiner perch
 Black perch  Pile surfperch  Rainbow seaperch	 Yellowfin croaker	 Topsmelt
 California lizardfish	 Pacific chub mackerel	
 Round stingray	 Leopard shark	
 Shovelnose guitarfish	 Gray smoothhound shark	

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