CALIFORNIA

Sport Fish Consumption Advisories

Important facts to know if you eat the fish you catch in California

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PUBLIC HEALTH ADVISORIES AND GUIDANCE ON SPORT FISH CONSUMPTION

Fish are nutritious and good for you to eat. But some fish you catch may take in toxic chemicals from the water they live in and the food they eat. Some of these chemicals build up in the fish—and in you—over time. Although the chemical levels are usually low, it is a good idea to follow a few precautions in consuming fish, particularly if you eat fish often. The purpose of this brochure is to guide you to eat the fish you catch in ways that reduce your exposure to chemicals.

The Office of Environmental Health Hazard Assessment (OEHHA) provides specific consumption advice in this booklet for fish taken in areas where high levels of chemicals have been found in fish. However, because contamination levels are unknown for many locations, OEHHA also provides general advice on how to reduce your exposure to chemicals in non-commercial fish, referred to as sport fish, that you, your family, or friends catch.

These advisories are not intended to discourage you from eating fish entirely. Fish are nutritious and an excellent source of protein. The advisories should be followed to make your sport fish eating safer.

OEHHA can provide more information on the advisories and the health effects of chemical contaminants in the fish. OEHHA also has an illustrated brochure giving general advice. The brochure can be requested in several different languages. To stay current for updates and to request additional information, please check the OEHHA Web site at www.oehha.ca.gov or contact the Pesticide and Environmental Toxicology Section (PETS) of OEHHA in Sacramento or Oakland at the address given on the back cover of this booklet.

GENERAL ADVICE

You can reduce your exposure to chemical contaminants in sport fish by following the recommendations below. Follow as many of them as you can to increase your health protection. This general advice is not meant to take the place of advisories for specific areas, which follow later in this booklet, but should be followed in addition to them. Sport fish in most water bodies in the state have not been evaluated for their safety for human consumption. This is why we strongly recommend following the general advice given below.

Fishing Practices:

Chemical levels can vary from place to place. Your overall exposure to chemicals is likely to be lower if you eat fish from a variety of places rather than from one usual spot that might have high contamination levels.

Be aware that OEHHA may issue new advisories or revise existing ones. Consult the Department of Fish and Game regulations booklet or check with OEHHA on a regular basis to see if there are any changes that could affect you.

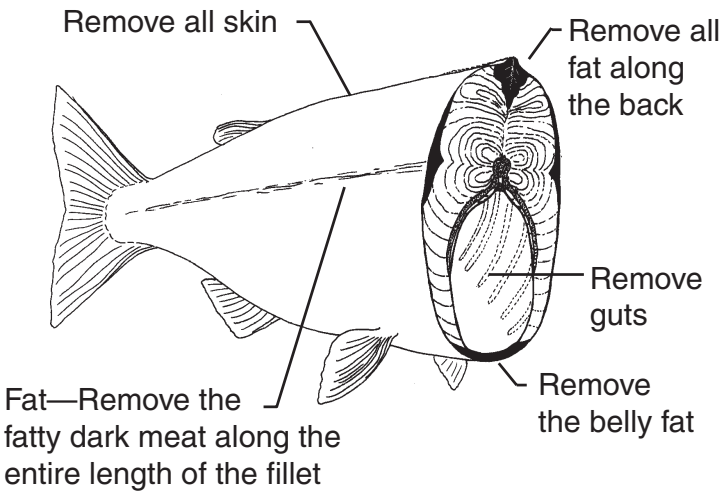
Consumption Guidelines:

Fish Species: Some fish species have higher chemical levels than others in the same location. If possible, eat smaller amounts of several different types of fish rather than a large amount of one type that may be high in contaminants.

Fish Size: Smaller fish of a species will usually have lower chemical levels than larger fish in the same location because some of the chemicals may become more concentrated in larger, older fish. It is advisable to eat smaller fish (of legal size) more often than larger fish.

Fish Preparation and Consumption:

- Eat only the fillet portions. Do not eat the guts and liver because chemicals usually concentrate in those parts. Also, avoid frequent consumption of any reproductive parts such as eggs or roe.
- Many chemicals are stored in the fat. To reduce the levels of these chemicals, skin the fish when possible and trim any visible fat.
- Use a cooking method such as baking, broiling, grilling, or steaming that allows the juices to drain away from the fish. The juices will contain chemicals in the fat and should be thrown away. Preparing and cooking fish in this way can remove 30 to 50 percent of the chemicals stored in fat. If you make stews or chowders, use fillet parts.
- Raw fish may be infested by parasites. Cook fish thoroughly to destroy the parasites. This also helps to reduce the level of many chemical contaminants.



Advice for Pregnant Women:

Young children and fetuses are more sensitive to the toxic effects of methylmercury, the form of mercury of health concern in fish.

The U.S. Food and Drug Administration (FDA) is responsible for commercial seafood safety. FDA has issued the following advice about the risks of mercury in fish to pregnant women and women of childbearing age who may become pregnant. The FDA advises these women not to eat shark, swordfish, king mackerel, and tilefish. The FDA also advises that it is prudent for nursing mothers and young children not to eat these fish as well.

The U.S. Environmental Protection Agency has also issued national advice to protect against consuming mercury in fish. They recommend that women who are pregnant or may become pregnant, nursing mothers, and young children eat no more than one meal per week of non-commercial freshwater fish caught by family and friends.

National advice for women and children on mercury in fish is available from the U.S. Environmental Protection Agency at: www.epa.gov/ost/fish

and the U.S. Food and Drug Administration at: www.cfsan.fda.gov/~dms/admehg.html

Adjusting Fish Meal Size for Body Weight:

In the site-specific guidance that follows, OEHHA gives consumption advice in terms of meals for a given period such as a meal a week. Unless otherwise specified, an eight-ounce meal size is the standard amount allowed for the "average" adult. The average adult weighs approximately 150 pounds (equivalent to 70 kg). Because you and your family members may weigh more or less than the average adult, you can use the table below as a general guide to adjust serving sizes to body weight.

How big is a meal?

IF YOU WEIGH...		YOUR MEAL SIZE SHOULD NOT EXCEED...	
Pounds	or kilograms	Ounces*	or grams
19	9	1	28
39	18	2	57
58	26	3	85
77	35	4	113
96	44	5	142
116	53	6	170
135	61	7	199
154	70	8	227
173	79	9	255
193	88	10	284
212	96	11	312
231	105	12	340
250	113	13	369
270	123	14	397
289	131	15	425
308	140	16	454

**Sixteen ounces is equal to one pound*

SITE-SPECIFIC CONSUMPTION RECOMMENDATIONS

The following guidelines apply to the specific advisories that follow:

- Eating sport fish in amounts slightly greater than what is recommended should not present a health hazard *if only done occasionally,* such as eating fish caught during an annual vacation.
- Nursing and pregnant women and young children *may be more sensitive* to the harmful effects of some of the chemicals and should be particularly careful about following the advisories. Because contaminants take a long time to leave the body after they accumulate, women who plan on becoming pregnant should begin following the more restrictive consumption advice a year before becoming pregnant. In this way, the levels of chemicals stored in the body can go down.
- The limits that follow for each species and area assume that no other contaminated fish is being eaten. If you consume several different listed species from the same area, or the same species from several areas, your total consumption still should not exceed the recommended amount. One simple approach is to just use the lowest recommended amount as a guideline to consumption.
- Just because the area where you like to fish is not included in the specific advisory areas that follow, it does not necessarily mean that it is free from chemical contamination. Sport fish in most parts of the state have not yet been evaluated for their safety for human consumption. Follow the general advice given earlier to protect your health.

The specific advisories listed below are arranged generally from north to south:

Lake Pillsbury (Lake County)

Because of elevated levels of mercury, women who are pregnant or may become pregnant within a year, nursing mothers, and children under age six should not eat fish from Lake Pillsbury. Other adults and children age six and older may eat fish from Lake Pillsbury on an occasional, but not regular, basis.

Clear Lake (Lake County) and Lake Berryessa (Napa County)

Because of elevated mercury levels, adults should eat no more than the amounts indicated below per month. Women who are pregnant or may become pregnant, nursing mothers, and children under age six should not eat fish from these lakes. Children 6-15 years of age should eat no more than one-half the amounts indicated for adults.

FISH SPECIES	CLEAR LAKE	LAKE BERRYESSA
largemouth bass over 15"	1 lb.	1 lb.
largemouth bass under 15"	2 lbs.	2 lbs.
smallmouth bass all sizes	*	1 lb.
white catfish all sizes	3 lbs.	2 lbs.
channel catfish over 24"	1 lb.	3 lbs.
channel catfish under 24"	3 lbs.	3 lbs.
rainbow trout all sizes	*	10 lbs.
brown bullhead all sizes	6 lbs.	*
Sacramento blackfish all sizes	6 lbs.	*
crappie over 12"	1 lb.	*
crappie under 12"	3 lbs.	*
hitch all sizes	10 lbs.	*

**Species not present or not tested.*

- Because of elevated levels of mercury, PCBs, and other chemicals, the following interim advisory has been issued. A final advisory will be issued when the data have been completely evaluated.
- Adults should eat no more than two meals per month of San Francisco Bay sport fish, including sturgeon and striped bass caught in the delta. (One meal for a 150 pound adult is about eight ounces.)
- Adults should not eat any striped bass over 35 inches.
- Women who are pregnant or may become pregnant, nursing mothers, and children under age six should not eat more than one meal of fish per month. In addition, they should not eat any striped bass over 27 inches or any shark over 24 inches.
- This advisory does not apply to salmon, anchovies, herring, and smelt caught in the bay; other sport fish caught in the delta or ocean; or commercial fish.
- Richmond Harbor Channel area: In addition to the above advice, no one should eat any croakers, surfperches, bullheads, gobies or shellfish taken within the Richmond Harbor Channel area because of high levels of chemicals detected there.

Lake Herman (Solano County)

Because of elevated mercury levels, women who are pregnant or may become pregnant, nursing mothers, and children under age six should not eat fish from Lake Herman. Adults should eat no more than one pound per month of largemouth bass, and children 6-15 years of age should eat no more than eight ounces per month of largemouth bass.

Grassland Area (Merced County)

Because of elevated selenium levels, no one should eat more than four ounces of fish from the Grassland area in any two-week period. Women who are pregnant or may become pregnant, nursing mothers, and children age 15 and under should not eat any fish from this area.

Guadalupe Reservoir, Calero Reservoir, Almaden Reservoir, Guadalupe River, Guadalupe Creek, Alamitos Creek, and the associated percolation ponds along the river and creeks (Santa Clara County)

Because of elevated mercury levels in fish, no one should consume any fish taken from these locations.

Lake Nacimiento (San Luis Obispo County)

Because of elevated mercury levels, no one should eat more than four meals per month of largemouth bass from Lake Nacimiento. Women who are pregnant or may become pregnant, nursing mothers, and children under age six should not eat largemouth bass from the area.

Harbor Park Lake (Los Angeles County)

Because of elevated chlordane and DDT levels, no one should eat goldfish or carp from Harbor Park Lake.

Salton Sea (Imperial and Riverside Counties)

Because of elevated selenium levels, no one should eat more than four ounces of croaker, orangemouth corvina, sargo, and tilapia taken from the Salton Sea in any two-week period. Women who are pregnant or may become pregnant, nursing mothers, and children age 15 and under should not eat fish from this area. (An additional warning for the New River has been published and posted by the Imperial County Health Department for people to avoid physical contact with the waters of the New River and to avoid eating any fish of any variety taken from the river.)

Southern California Locations between Pt Dume and Dana Pt

Twenty-four locations in this area of southern California have been tested. No restrictions on consumption due to chemicals are considered necessary for the following locations: Santa Monica Pier, Venice Pier, Venice Beach, Marina del Rey, Redondo Beach, Emma/Eva oil platforms, Huntington Beach, Laguna Beach, Fourteen Mile Bank, Catalina (Twin Harbor), and Dana Point.

Because of DDTs and PCBs, however, advisories have been issued for the locations shown in the table that follows. (One meal is about six ounces.)

SITE	FISH SPECIES	RECOMMENDATION*
Point Dume/Malibu off shore	White croaker	Do not consume
Malibu Pier	Queenfish	One meal a month
Short Bank	White croaker	One meal every two weeks
Redondo Pier	Corbina	One meal every two weeks
Point Vicente Palos Verdes-Northwest	White croaker	Do not consume
White's Point	White croaker	Do not consume
	Sculpin Rockfishes Kelp bass	One meal every two weeks+
Los Angeles/Long Beach Harbors (especially Cabrillo Pier)	White croaker	Do not consume
	Queenfish Black croaker Surfperches	One meal every two weeks+
Los Angeles/Long Beach Breakwater (ocean side)	White croaker Queenfish Surfperches Black croaker	One meal a month+
Belmont Pier Pier J	Surfperches	One meal every two weeks
Horseshoe Kelp	Sculpin White croaker	One meal a month+
Newport Pier	Corbina	One meal every two weeks

** In this table a meal for a 150-pound adult is about six ounces.*
+ Consumption recommendation is for all listed species combined at the particular site.

In memory of

Hanafi Russell

who dedicated his career to serving the public
and protecting public health and the environment
by his steadfast efforts to create and communicate
timely, accurate, and understandable public health
information

California Environmental Protection Agency (Cal/EPA)
Office of Environmental Health Hazard Assessment (OEHHA)

Advisories in this booklet are current as of June 2001

Contact OEHHA at the adresses below or check the Web site for updated information.

Pesticide and Environmental Toxicology Section
Office of Environmental Health Hazard Assessment
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Sacramento, California 95812-4010
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FAX (916) 327-7320

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Cover Photo: Kimberly McKee-Lewis, associate wildlife biologist for the California Department of Fish and Game, caught a barracuda on a sport fish tagging effort in San Diego Bay.

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