

# Selenium in Fish and Shellfish

## What and where is selenium?

- Selenium is an essential nutrient. Small doses are healthy and necessary, but higher doses can be toxic.
- Selenium is in many foods, including meat (especially organ meats), cereals, grains, and eggs, and some dietary supplements.
- Fish and shellfish, which this fact sheet collectively refers to as “fish”, can be an excellent source of selenium, and are part of a healthy diet.
- Selenium is naturally present in the environment, though levels vary greatly.
- Selenium can also build up in the environment due to human activity, such as certain agricultural practices.
- Selenium levels in fish have not been a concern in most areas of California.



## What is the concern for human health?

- Too much selenium can cause health problems, such as hair and nail loss, gastrointestinal distress, dizziness, and tremors.

## Should I still eat fish?

- Yes! Low-contaminant fish are an important part of a well-balanced diet.
- Fish are a good source of protein and vitamins, and a primary source of heart-healthy omega-3 fatty acids.
- Eating two servings of non-fried fish per week is good for you, according to the American Heart Association.
- If you are pregnant, eating low-contaminant fish may help your baby’s brain develop.

## Can I reduce selenium levels in fish?

- No. There is no special way to clean or prepare fish to reduce their selenium levels.

## How can I reduce my risk?

- Only eat the fish fillet (meat). Don’t eat the internal organs of fish and shellfish (“guts,” crab “butter,” and lobster “tomalley”), as these may contain other harmful chemicals.
- If you catch your own fish from California waters, follow the Office of Environmental Health Hazard Assessment’s (OEHHA) [fish advisories](#).
- If you are on a high-selenium diet, or use dietary supplements that include selenium, pay special attention to fish advisories based on selenium.

## Where can I learn more?

- [OEHHA’s Fish Program](#)
- National Institutes of Health [Selenium. Fact Sheet for Consumers](#)