

Mercury in fish

Purpose

This advice provides guidance on the consumption of both freshwater and marine fish that may be contaminated with mercury.

Summary

- Fish is an important part of a healthy diet.
- Some varieties of fish may contain high levels of mercury.
- Mercury can be harmful if too much is ingested.
- Pregnant women, women planning a pregnancy and young children (up to six years) should limit their consumption of fish that contain high levels of mercury.
- The rest of the population can safely eat 2 to 3 serves of most varieties fish per week, which should be sourced from different locations or sources, except shark (flake), broadbill (swordfish) and marlin which should not be eaten more than once per week.
- Fish that may contain high levels of mercury include shark (flake), broadbill (swordfish), marlin, orange roughy (deep sea perch) and catfish.
- Additional precautions are required for freshwater fish in some areas due to higher levels of naturally occurring mercury.
- Fish in Hinze Dam on the Gold Coast have elevated levels of naturally occurring mercury and should not be consumed.

Where is mercury found?

Fish and other seafood may become contaminated with mercury in their environment. The mercury may naturally come from rocks and soil or from man-made sources. Some fresh water bodies naturally contain higher levels of mercury, which is mainly in the bottom sediments rather than the water.

Mercury in fish

People take in small amounts of mercury in their diet from eating fish. The levels of mercury in most fish are very low, but some species of fish contain higher levels of mercury due to their feeding habits or surrounding environment. Mercury can accumulate in fish through the food chain from bottom sediments, so large predatory fish (those that eat other fish) and long-lived fish tend to have higher concentrations of mercury.

Marine fish that may contain high levels of mercury include shark (flake), ray, broadbill, swordfish, marlin, gemfish, orange roughy (sea perch) and catfish.

Freshwater fish in Queensland that may contain higher levels of mercury include Australian bass, Murray cod, eel and golden perch.

Health advice

Fish is an excellent source of protein, is low in saturated fat and high in unsaturated fat and omega 3 oils, and is also a rich source of iodine so everyone, including pregnant women, should regularly include fish in their diet.

People can safely eat 2 to 3 serves a week of most types of fresh water and marine fish, which should be sourced from multiple locations or sources. This includes canned fish. However, because of the presence of higher levels of mercury in some fish there are a few types you should limit in your diet.

Additional precautions are necessary for pregnant women, women planning pregnancy and young children (up to six years of age) because the developing nervous system is particularly sensitive to mercury and an unborn baby can be exposed to mercury through its mother's diet.

It is recommended that consumption of the following fish should be limited as follows:

- The general population should not eat a serve of shark (flake), broadbill (swordfish) and marlin, more than once per week and no other fish that week.
- Pregnant women, women planning pregnancy and young children (up to six years of age) should eat:
 - A serve of Australian bass, Murray cod, eel and golden perch no more than once a week, and no other fish should be eaten during that week.
 - A serve of orange roughy, catfish, no more than once a week, and no other fish should be eaten during that week.
 - A serve of shark (flake), broadbill (swordfish) and marlin no more than once a fortnight and should not eat any other fish during that fortnight.

The recommended weekly servings are 75 grams for children up to six years and 150 grams for the rest of the population, including pregnant women and women planning pregnancy.

Consumers concerned about the source of their seafood should ask their supplier for more information.

Hinze Dam and other South-East Queensland dams

Can I safely eat fish from these dams?

Australian bass (fish) and water in a number of dams in South-East Queensland (SEQ) were tested for mercury in 2018.

Bass in Hinze Dam on the Gold Coast were found to have elevated levels of mercury. Based on the results, fish from Hinze Dam should not be consumed. However, they may continue to be taken on a catch and release basis. If you have occasionally eaten fish from the Hinze Dam, there is very low risk of any health effects or harm.

Lower levels of mercury were also detected in fish in the Wivenhoe, Somerset, Borumba, and North Pine dams. However, the recommended consumption limits discussed above are sufficient to protect against excessive consumption of mercury.

Is it safe to drink the water?

Mercury is not very water soluble and settles in the sediments of streams, rivers, lakes and dams. Very low levels of mercury were detected in the dams tested, including Hinze Dam. These were well within safe limits for drinking. Only treated water from these sources should be consumed because untreated water contains microorganisms that may cause illness.

Is the water safe for water activities?

The levels of mercury detected in the water of SEQ dams were all within acceptable levels for recreational use including swimming. To find out what activities are permitted at SEQ dams, visit www.seqwater.com.au/recreation.

Further information

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Food Standards Australia New Zealand:

<http://www.foodstandards.gov.au/consumer/chemicals/mercury/Pages/default.aspx>

Seqwater

For information about SEQ drinking water dams and recreation activities: www.seqwater.com.au.

Mercury and your health

See your local doctor if you or a family member have health concerns.

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