

Mercury in fish

Fish is a nutritious food. It is an excellent source of protein, low in saturated fat and contains the essential omega-3 fatty acids, iodine and some vitamins. However, most fish also contain mercury. Following the advice in this publication will allow you to enjoy the many health benefits from eating fish while keeping your exposure to mercury within safe limits. It is particularly important that women who are pregnant, or planning to be, monitor their fish intake as there are unresolved issues around levels of mercury in some fish and its potential impact on the growing foetus.

Why is mercury a concern?

Mercury occurs naturally in the environment and accumulates in fish in the form of methyl-mercury. Our most common exposure to mercury is through fish and other seafood. Most people are not exposed to levels high enough to harm the nervous system as the body excretes it over time so accumulation is usually not a problem. However, unborn babies are potentially more sensitive to the harmful effects and their exposure to mercury should be limited. It is also recommended that if you eat a lot of fish, you restrict consumption of certain species high in mercury.

How much mercury is in fish?

Mercury levels in fish vary considerably between species depending on habits and feeding patterns. Most species accumulate only low levels of mercury over their lives. Predatory fish at the top of the food chain, such as shark and swordfish, tend to accumulate higher levels of mercury. In fish species that live for a long time, high mercury levels are often found in older fish. Freshwater fish, such as trout, which live in lakes and rivers supplied by geothermal water may also accumulate higher levels of mercury, as mercury is commonly found in volcanic emissions.

Should pregnant women eat fish?

Eating fish during pregnancy is recommended as part of a well-balanced diet, because it is a nutritious food for you and your growing baby. To ensure your exposure to mercury is within safe limits, it is recommended that women who are pregnant or considering pregnancy limit their consumption of fish containing higher levels of mercury (see table for recommended number of servings) and eat a variety of fish where possible. An average portion size is 150g of fish.

We also offer general advice on food safety during pregnancy, as this is a time when you or your baby may be more vulnerable to illnesses carried in food. Our booklet *Food safety for pregnant women* can be ordered from NZFSA's consumer helpline on 0800 NZFSA1 (0800 693 721).

Once your baby is born you can resume your normal diet even if breastfeeding. Breast milk is not considered a significant source of mercury and the benefits of breastfeeding far outweigh any risks posed by the small amount of mercury that may be present in breast milk.

How much fish can I eat in pregnancy?

For the many commonly eaten fish species in New Zealand there is little concern about mercury levels and they can be eaten freely.

These types are listed in the green section of the table below.

Mixed fish (eg, battered fish and fish fingers) are also low in mercury and can be eaten without restriction.

Fish species to be mindful of during pregnancy are some of the longer lived and larger fish, because they tend to accumulate more mercury in their lifetime and consumption should be limited to three to four servings per week. These types are listed in the yellow section.

There are a small number of species that pregnant women would be wise to eat no more than one serving of per week or fortnight, and not at all if you are already eating other types of fish or seafood. These species are listed in the red section. Fish that live in geothermal regions are more exposed to mercury as it is in volcanic emissions. Therefore, anything caught in these regions, such as trout, should be limited to no more than one serving per week or fortnight.

Eating shellfish in pregnancy

Because Queen scallops and Bluff oysters have higher levels of cadmium, pregnant women are advised to restrict their consumption to small amounts only. It is also important to remember that shellfish should never be eaten raw in pregnancy.

RECOMMENDED SERVINGS FOR VARIOUS FISH SPECIES

No restriction necessary

Anchovy • Arrow squid • Barracouta • Blue cod • Brill/Turbot • Brown trout¹ • Cockles • Eel, long or short finned • Elephant fish • Flounders • Gurnard • Hoki • John Dory • Monkfish or stargazer • Mussels (green and blue) • Orange perch • Oysters (Bluff² and Pacific) • Parore • Rainbow trout³ • Salmon (farmed) • Scallops⁴ • Skipjack tuna* • Sole (except Lemon sole) • Southern blue whiting • Surf clams (eg, tuatua) • Tarakihi • Toothfish (Antarctic) • Warehou (common, silver and white) • Whitebait (Inanga)

3 – 4 servings per week acceptable

Albacore tuna • Alfonsino • Bass • Bluenose • Gemfish • Ghost sharks • Hake • Hapuka (Groper) • Javelin Fish • Kahawai • Kingfish • Lake Taupo trout • Leatherjacket • Lemon sole • Ling • Mackerel (blue and jack) • Orange roughy • Oreo dories • Red cod • Ribaldo • Rig (Lemonfish, Spotted dogfish) • Rock lobster • Sea perch • Silverside • Skate • Smooth oreo • Snapper • Sprats • Trevally

1 serving per 1 – 2 weeks acceptable

Cardinal fish • Dogfish (excluding rig) • Lake Rotomahana trout • Lake trout from geothermal regions • School shark (Greyboy, Tope) • Marlin (striped) • Southern bluefin tuna • Swordfish

¹ Brown trout from Lake Ellesmere; ² Pregnant women should limit their intake of Bluff oysters due to higher levels of cadmium; ³ Rainbow trout from non-geothermal regions.

⁴ Pregnant women should limit their intake of Queen scallops due to higher levels of cadmium *No data for Yellowfin tuna