ANSWERS TO COMMON QUESTIONS
MERCURY IN FISH

1. Should I be eating fish at all leading up to or during pregnancy?

Yes. Fish is a highly nutritious food. Fish is an excellent source of high quality protein, is rich in important vitamins and minerals such as vitamin D and iodine, as well as the omega-3 fatty acids. These nutrients provide important health benefits both to you and the developing baby.

By being informed about mercury and knowing the kinds of fish to limit in your diet, you can prevent any harm to your unborn child and still enjoy the health benefits of eating fish. See the table 'Advice on Fish Consumption' for guidance on the types of fish to limit in your diet if you are pregnant or planning pregnancy.

2. Should I be concerned about mercury if I am breast-feeding my baby?

No. The benefits of breastfeeding your baby far outweighs any risk posed by the small amount of mercury that may be present in breast milk.

The critical time for the baby is while it is still developing in the womb. This is why FSANZ recommends that women start to limit their exposure to mercury from fish prior to pregnancy. By doing this it means you will reduce the amount of mercury in your body before getting pregnant. If you have limited your exposure to mercury up to and during pregnancy, the amount of mercury transferred through breast milk will be very low. As a precaution however you might like to consider limiting your mercury exposure while breastfeeding. Simply follow the same advice as for pregnant women.

3. Should I be giving young children fish to eat?

Yes. Fish is a highly nutritious food. Fish is an excellent source of high quality protein, is rich in important vitamins and minerals such as vitamin D and iodine, as well as the omega-3 fatty acids. These nutrients provide important health benefits for young children because of their growth and development needs.

But remember, the Australian Dietary Guidelines recommend that a variety of foods be consumed. See the table 'Advice on Fish Consumption' for guidance on the types of fish to limit in your children's diet, noting the smaller serving size for young children (75 grams per serve).

4. Isn't swordfish supposed to be a good source of omega-3 fatty acids?

Yes. Swordfish contains high levels of omega-3 fatty acids but a number of other fish - such as mackerel, silver warehou, atlantic salmon, canned salmon and tuna in oil, herrings and sardines are also good sources of omega-3 fatty acids. These fish have much lower mercury levels compared to swordfish, therefore they may be eaten more frequently (e.g. 2-3 times per week).

5. Is canned tuna safe to eat regularly?

Yes. In general, it is safe for all population groups, including pregnant women, to consume 2-3 serves of any type of tuna per week (canned or fresh). Canned tuna generally has lower levels of mercury than other tuna because the tuna used for canning are smaller species that are generally caught when less than 1 year old. FSANZ has calculated that it is safe for all population groups to consume a snack can of tuna (95 grams) everyday, assuming no other fish is eaten. But remember, the Australian Dietary Guidelines recommend that a variety of foods be consumed.

6. Does processing or cooking reduce the mercury content of fish?

No. The mercury content of fish is not reduced by processing techniques such as canning or freezing or by cooking.

7. What if I only like eating shark/flake?

The advice to moderate fish intake relates mainly to the large fish, like shark/flake and billfish (including swordfish, broadbill and marlin). If your favourite fish is flake remember FSANZ's advice to limit intake and instead consider eating a variety of other types of fish. Note that flake should not be confused with hake, which is a small white fish that does not have higher mercury levels.

8. What if I like to eat more than 2-3 serves of fish per week?

Like all foods, fish should be eaten as part of a varied and balanced diet. Over-consumption of any single food group, particularly to the exclusion of other foods, is not recommended because it can lead to dietary imbalances and may increase your intake of potentially harmful substances in food, such as mercury. If you do eat more than 2-3 serves of fish per week, it is important that you eat a variety of fish, and that you avoid those fish with the high mercury levels such as shark/flake and billfish. This is especially important if you are pregnant or intending to become pregnant.

9. What about fish oil products?

Fish oil products and supplements are not a major source of dietary mercury and there is no recommendation to restrict intake of these products on the basis of mercury content.

10. Is other seafood such as crustacea or molluscs a concern?

No. Crustacea (including prawns, lobsters, and crabs) and molluscs (including oysters and calamari) generally contain lower levels of mercury than finfish. Also crustacea and molluscs tend not be consumed as frequently. Overall this means they are not a significant source of mercury for the average consumer. However, if you consume large amounts of these foods on a regular basis, they may contribute significantly to your mercury exposure.

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ADVICE ON FISH CONSUMPTION

Mercury in Fish

FOOD STANDARDS
Australia New Zealand
Te Mana Kounga Kai – Ahitereiria me Aotearoa

ADVICE ON FISH CONSUMPTION

There are many nutritional benefits from eating fish. Fish is low in saturated fat and is an excellent source of protein, essential omega-3 fatty acids, iodine, and some vitamins. Australian Dietary Guidelines recommend eating a variety of protein-rich foods including meats, poultry, fish, eggs, nuts and legumes.

In deciding how much and what types of fish to eat, be aware that all fish contain a small amount of mercury, with some types of fish having higher levels than others. Eating too much of those fish with high mercury levels, or eating them every day, could have harmful effects.

The table provides guidance on the number of serves of different types of fish that are safe to eat for different population groups.

This advice is particularly important for pregnant women and those women intending to become pregnant because the unborn baby is more vulnerable than others to the harmful effects of mercury. Young children are also included in this advice because they are growing rapidly and eat more food per kilogram of body weight than adults or older children. Their exposure to mercury may therefore be higher than adults.

Food Standards Australia New Zealand has prepared the 'Advice on Fish Consumption' based on the latest scientific information. The advice has been specifically developed for the Australian population and reflects local knowledge of our diets, the fish we eat and their mercury content.

The details of the advice given for other countries may vary because the risk of mercury exposure from the diet depends on the environment in that country, the type of fish commonly caught and eaten, the patterns of fish consumption and the consumption of other foods that may also contain mercury.

NUMBER OF SERVES OF DIFFERENT TYPES OF FISH THAT CAN BE SAFELY CONSUMED

Pregnant women and women planning pregnancy 1 serve equals 150 grams#	Children (up to 6 years) 1 serve equals 75 grams#	Rest of the population 1 serve equals 150 grams#
2 – 3 serves per week of any fish and seafood not listed in the column below		2 – 3 serves per week of any fish and seafood not listed in the column below
OR		OR
1 serve per week of Orange Roughy (Deep Sea Perch) or Catfish and no other fish that week		1 serve per week of Shark (Flake) or Billfish (Swordfish/ Broadbill, and Marlin) and no other fish that week
OR		OR
1 serve per fortnight of Shark (Flake) or Billfish (Swordfish/Broadbill, and Marlin) and no other fish that fortnight		

A 150 g serve for adults and older children is equivalent to approximately 2 frozen crumbed fish portions, and a 75 gram serve for children is approximately 3 fish fingers (Hake or Hoki is used in fish fingers). Canned fish is sold in various sizes; for example, the snack size cans of tuna are approximately 95 g.

PLEASE NOTE

The Australian Dietary Guidelines advise eating one or two fish meals per week

If you are in doubt about the type of fish or boneless fish fillets you are purchasing, FSANZ recommends that you ask the retailer and confirm the name of the fish being supplied. This also applies when eating out.

FACTS ABOUT MERCURY

Mercury occurs naturally in the environment and accumulates in the aquatic food chain, including fish, as methylmercury. This means all fish will contain some methylmercury. Because of this, fish is the main source of methylmercury in the diet for most people.

The good news is that the level of methylmercury in most fish is very low. As most people consume only moderate amounts of fish, the benefits of eating fish far outweigh the risk posed by the small amount of methylmercury present. Regulations are also in place that set a limit on the amount of mercury that can be present in fish that is sold.

The amount of methylmercury in fish depends on how long the fish lives and what it eats. The big, long living or predatory fish, such as swordfish and shark/flake, tend to accumulate higher levels of methylmercury.

High levels of methylmercury can damage the nervous system. Unborn babies are particularly vulnerable because their brains are developing very rapidly. Some studies of populations that eat large amounts of fish have reported a link between consumption of fish by mothers and subtle developmental delays in their children. These changes could only be detected using special tests that measure learning and behaviour. In contrast, for adults, the first sign of excessive exposure to methylmercury is usually numbness and tingling in the fingers, lips and toes. Effects in adults occur at much higher levels of intake than that linked to effects in children following exposure in the womb.

For more information visit FSANZ website www.foodstandards.gov.au or contact the Information Officer and ask for the fact sheet *Further Information: Mercury in Fish.*