ANSWERS TO COMMON QUESTIONS MERCURY IN FISH

Should pregnant women eat fish?

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.

Should breastfeeding women eat fish?

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.

Should young children eat fish?

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).

Why should I limit swordfish?

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).

Is it safe for all population groups to eat fish?

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 small 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.

Does processing affect 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.

What kinds of fish should I limit?

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 rock-which is a small white fish that does not have higher mercury levels.

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.

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.

Do crustacea and molluscs contain mercury?

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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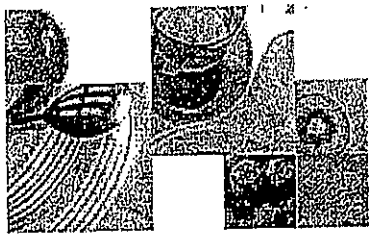

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Mercury in Fish

ADVISORY STATEMENT FOR PREGNANT WOMEN

January 2001

INTRODUCTION

The purpose of this statement is to provide information on the mercury content of certain types of fish and to advise pregnant women, or women intending to become pregnant, on the amount and types of fish they can safely consume during pregnancy. This advice is subject to ongoing research. It is not intended to discourage consumption of fish during pregnancy, rather provide recommendations on the amount of certain species of fish that can safely be consumed.

BENEFITS FROM EATING FISH

There are numerous nutritional benefits to be gained from regularly eating fish. Fish is an excellent source of protein, is low in saturated fat and is high in unsaturated fat and omega 3 oils. The Heart Foundation recommends consuming fish twice a week to gain cardio-vascular health benefits.

MERCURY IN FISH

Because mercury occurs naturally in the environment we are exposed to mercury through air and water and through the food supply. For most individuals, food and, in particular, fish, is the principal source of exposure to mercury. The level of mercury varies in different fish species because each have different habitats and feeding patterns. Fish such as shark/flake, ray, swordfish, barramundi, gemfish, orange roughy, ling, and southern bluefin tuna tend to accumulate higher levels of mercury because they are large and live longer and are at the top of the food chain. Freshwater fish in geothermal lakes and rivers in New Zealand may also accumulate higher levels of mercury. Canned tuna has lower levels of mercury than fresh bluefin tuna because the tuna fish used for canning is a different, smaller species and is generally caught when less than 1 year old.

CONCERNS REGARDING MERCURY

Mercury can be harmful to the nervous system at high levels of exposure. The majority of the population are exposed to levels of mercury that are not associated with harmful effects. In the case of unborn children, however, there is some research that indicates foetuses may be more sensitive than adults to the effects of mercury from food consumption. These effects are generally not apparent until after the baby is born and typically manifest as subtle delays (usually only apparent through testing), by the infant in the achievement of developmental milestones, for example, delayed onset of walking, talking. The level of mercury exposure producing these effects does not appear to produce

any harmful effects in the mother. Studies on the possible effects of mercury on unborn children are still on going and until they are completed, some caution regarding excessive consumption of mercury-containing foods during pregnancy is warranted.

CURRENT REGULATIONS

Regulations are already in place that prescribe the maximum level of mercury that can be present in fish that is sold. These limits ensure that the vast majority of people in the community are not exposed to any significant health risks through the presence of mercury in fish.

ADVICE FOR PREGNANT WOMEN

There are numerous nutritional benefits to be gained from regularly eating fish but g iven the on going and unresolved concerns regarding mercury exposure, it is recommended that pregnant women (and women considering pregnancy) should limit their consumption of some types of fish: shark/flake, ray, swordfish, barramundi, gemfish, orange roughy, ling, southern bluefin tuna and fish caught in geothermal waters, to four portions per week (an average portion would contain about 150 g of fish). Other fish, including canned tuna, can be consumed as often as desired. Where possible, choose to eat a variety of fish.

ANSWERS TO COMMON QUESTIONS

Mercury in Fish

1. Are canned fish a higher risk than fresh fish?

No. The mercury content of fish is not affected by processing techniques such as canning or freezing. In fact, canned tuna has lower levels of mercury than southern bluefin tuna because the tuna used for canning is a different, smaller species and is generally caught when less than 1 year old.

2. Does cooking affect the level of mercury?

Cooking by any technique does not change the amount of mercury present in fish or shellfish.

3. What if I only like eating flake?

The advice for pregnant women to moderate fish intake relates only to the large fish, like shark/flake, ray, swordfish, barramundi, gemfish, orange roughy, ling, and southern bluefin tuna. If your favourite fish is one of these, such as flake, then consider FSANZ' s advice to moderate intake and eat a variety of species. If your favourite fish is not one of these then you can consume it regularly with no concerns about mercury levels Note that flake should not be confused with hake, which is a small white fish that does not have higher mercury levels.

4. Should I be concerned about breast-feeding my baby if I eat a lot of fish?

No. The critical period of mercury exposure for your baby is while it is still developing in the womb. By restricting your consumption of certain types of fish while pregnant you can limit exposure to the foetus. Once the baby is born, the risk is much lower and is the same as the risk for adults, therefore no additional precautions are necessary. The vast majority of the mercury that you ingest from food is expelled via the faeces. Very little is actually excreted in breast milk.

5. Why do some fish have higher levels of mercury?