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## Methylmercury and pregnancy

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The information below will help you determine if your prenatal exposure to methylmercury will increase the fetal risk above the background risk. With every pregnancy, any woman has a 3 to 5 percent chance of having a baby with a birth defect. The information contained in this fact sheet should not be used as a substitute for the medical care and advice of your health care provider.

### ***What is methylmercury?***

Methylmercury is a toxic form of mercury found mostly in water, soil, plants and animals. Methylmercury (organic mercury) is different from elemental mercury (thermometers, dental amalgams).

### ***Where does methylmercury come from?***

Mercury is found in the air and comes from a variety of natural and man-made sources (industrial pollution). When mercury enters water such as lakes, rivers and streams, it is changed into methylmercury.

### ***How can I be exposed to methylmercury?***

You can be exposed to methylmercury by eating contaminated fish. Fish absorb methylmercury through the water in their gills and from their food. Almost all fish contain at least small amounts of methylmercury. Methylmercury in small amounts is not harmful to humans, but large amounts have been found to be toxic.

### ***Do some fish contain more methylmercury than others? What are some of the fish that I should be concerned about?***

In general, eating fish is an important part of a healthy diet. However, the Food and Drug Administration (FDA) advise women who are planning to become pregnant within one year, pregnant women, nursing mothers, and children under the age of 6 years to avoid fish that contain high levels of methylmercury. Large and long-lived fish are more likely to contain higher amounts of methylmercury than small fish. The following large fish have the highest levels of methylmercury, and should be avoided during pregnancy: shark, swordfish, king mackerel, and tilefish.

### ***I am pregnant, and I love fish. What kind of fish can I eat, and how much is safe?***

A typical serving of fish is 3 to 6 ounces. For women who could become pregnant or who are

currently pregnant, the FDA reports that you can safely eat 12 ounces (two average meals) a week of most types of cooked fish including store bought small ocean fish or farm-raised fish (salmon, pollock, catfish), shellfish (king crab, shrimp), or canned fish (including light tuna). Fish sticks and fast-food fish are typically made from fish with lower levels of methylmercury.

Canned albacore (white) tuna and fresh tuna steaks have more mercury levels than canned light tuna, and the FDA recommends only 6 ounces of canned albacore or fresh tuna steaks per week.

### ***Can I eat fish caught by family and friends from local waters?***

Freshwater fish caught from local waters may contain high levels of methylmercury and may not be safe to eat. The Environmental Protection Agency (EPA) and state and local health departments monitor freshwater lakes and streams. You can check with your local agency to see if the fish is safe to eat. Freshwater and saltwater fish from contaminated waters will likely have higher levels of methylmercury; and the amount of methylmercury found in these fish can be higher than the levels found in the water.

### ***I used to eat fish a few times a week. How long can methylmercury stay in my body?***

It is removed slowly through urine, feces, and breast milk. If fish containing methylmercury are eaten prior to or during pregnancy, the developing baby may be exposed to methylmercury that has accumulated in the mother's tissues and organs. The amount of time it takes to remove half of the body's methylmercury stores is approximately 70 days.

### ***What if I ate more than the recommended amount of fish in a week during my pregnancy?***

One week's consumption of fish probably would not greatly change the level of methylmercury in your body. If you eat a lot of fish during one week, you can limit your fish consumption for the next week or two.

### ***Can methylmercury affect my developing baby?***

Yes, at very high levels. Methylmercury crosses the placenta and can be found in the baby's blood at levels higher than those in the mother. The baby's brain is the most sensitive organ to the effects of methylmercury exposure. The brain continues to develop throughout the entire pregnancy, so exposure at anytime in pregnancy is of concern.

Studies from Minimata, Japan, of mothers who were exposed to very high levels of methylmercury from contaminated fish, showed that their children had smaller head sizes, cerebral palsy and loss of muscular control, shaking, seizures, and mental retardation. Women in the U.S., who generally do not depend upon fish for their protein intake, are unlikely to consume enough fish to cause harmful effects in a pregnancy. However, all women who are pregnant or may become pregnant are advised to follow the FDA guidelines for fish consumption to help reduce the chances for exposure to harmful levels of methylmercury.

### ***Is it a problem if the father of the baby is exposed to methylmercury?***

Studies in experimental animals have shown that mercury can change the shape and movement of sperm. In humans, the research data are not clear. Some studies have suggested that high levels of mercury may cause infertility while other studies have not. There are no data suggesting that a father's exposure to methylmercury can cause birth defects or mental retardation in their children.

### ***Can I be tested to find out if I have high levels of methylmercury in my body?***

Yes. Blood and hair can be tested to determine exposure to methylmercury. Blood tests are better for detecting methylmercury immediately following exposures. Hair may be able to detect ongoing (chronic) exposure. However, these tests can be hard to interpret. A urine test is not helpful in testing for methylmercury. You should discuss your exposure with your doctor to determine if testing would be helpful. However, there is no standard recommendation to screen women for methylmercury levels prior to or during pregnancy.

### ***Is it dangerous to eat fish and breastfeed my baby? What if blood tests showed that I have high levels of methylmercury?***

A woman who is breastfeeding should follow the same FDA guidelines described above for eating

fish. Very few studies have been done to evaluate breast fed infants whose mothers had high levels of methylmercury. However, if tests done during pregnancy, or after delivery, show high levels of methylmercury in the mothers system, then she may wish to discuss the safety of breastfeeding with her doctor.

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