Environmental Safety

What You Need to Know About Mercury Exposure

Mercury has been in the news a lot lately, frequently being blamed for serious and sometimes seemingly improbable health problems. As a parent, you probably know that pregnant women are told to avoid consuming large quantities of certain types of fish due to potential mercury exposure. But you may wonder about mercury poisoning from fish and other sources for your family after you're pregnant. It has been proven that exposure to mercury can have significant health consequences for people of all ages, particularly children. It is therefore important to learn the facts and limit your family's potential exposure.

Question 1: What is mercury?

Answer: Mercury is a naturally occurring element that has several forms:

- Metallic: A shiny, silver-white, odorless liquid
- Gas: When heated, it is a colorless, odorless gas. Mercury is used to produce chlorine gas and caustic soda
- Compound: Blended as part of an alloy or compound

Question 2: How might I be exposed to mercury?

Answer: There are a variety of ways one might come in contact with mercury:

- **Diet:** Eating fish or shellfish contaminated with methylmercury.
- **Breathing in vapors:** Air from spills, incinerators and industries that burn mercury-containing fuels can be contaminated.
- **Medical exposure:** Release of mercury from dental work and medical treatments.
- **Household items:** Used as part of compounds in common household items such as thermometers, some light bulbs and batteries.
- **Cosmetics:** Mercury salts are sometimes used in skin lightening creams and as antiseptic creams and ointments.
- **Industrial or workplace exposure:** Breathing contaminated workplace air or skin contact during use in the workplace (health services, chemical and other industries that use mercury).

The Environmental Protection Agency (EPA) advises that for most people, the risk from mercury poisoning by eating fish and shellfish is not a health concern. Yet, some fish may contain higher levels that may harm a child or fetus. It is therefore recommended by the U.S. Food & Drug Administration (FDA) and the EPA that women who may become pregnant, pregnant women, nursing mothers and children avoid some types of fish and eat fish and shellfish that are lower in mercury.

- Do not eat shark, swordfish, king mackerel or tilefish because they contain high levels of mercury
- Eat up to 12 ounces (two average meals) a week of a variety of fish and shellfish that are lower in mercury
  - Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock and catfish.
  - Another commonly eaten fish, albacore ("white") tuna, has more mercury than canned light tuna. So, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of albacore tuna per week.
- Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers and coastal areas. If no advice is available, eat up to 6 ounces (one average meal) per week of fish you catch from local waters, but don't consume any other fish during that week.

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Question 3: How can mercury affect my health?

Answer: Mercury, in its pure form, is extremely toxic. The nervous system in particular is very sensitive to all forms of mercury, with exposure to high levels of metallic, inorganic, or organic mercury resulting in permanent damage to cognition, coordination and sensation. Additionally, exposure can result in kidney failure and damage to other internal organs.

Question 4: What are the symptoms of mercury exposure?

Answer: Unfortunately, the symptoms of mercury exposure often don't present until there has been substantial damage. Still, there are signs parents and doctors can look for:

- Irritability
- Mood changes
- Tremors
- Changes in vision or hearing
- Memory problems

Short-term exposure to high levels of metallic mercury vapors may cause symptoms such as:

- Nausea
- Vomiting
- Diarrhea
- Increases in blood pressure or heart rate
- Skin rashes
- Eye irritation

Question 5: What is the risk to an unborn child/expectant mother?

Answer: The threat of mercury poisoning can begin even before birth, when mercury present in the mother's body can pass to the fetus. Once the child is born, it can also pass to the nursing infant through breast milk making it imperative that new mothers and expectant mothers take protective measures, as children poisoned by mercury may experience serious health problems and developmental delays.

Question 6: How can families reduce the risk of exposure to mercury?

Answer:

- Carefully handle and dispose of products that contain mercury, such as thermometers or fluorescent light bulbs. Do not vacuum up spilled mercury because it will vaporize and increase exposure. If a large amount of mercury has been spilled, contact your health department. Teach children not to play with shiny, silver liquids.
- Properly dispose of older medicines that contain mercury. Keep all mercury-containing medicines away from children.
- Pregnant women and children should keep away from rooms where liquid mercury has been used.
- Learn about wildlife and fish advisories in your area from your public health or natural resources department.

Question 7: Is there a medical test to show whether I've been exposed to mercury?

Answer: At UL, we want to make sure you have the information you need to keep your family protected. Tests are available to measure mercury levels in the body. Blood or urine samples are used to test for exposure to metallic mercury and to inorganic forms of mercury. Mercury in whole blood or in scalp hair is measured to determine exposure to methylmercury. Your doctor can take samples and send them to a testing laboratory.

Source: CDC http://www.atsdr.cdc.gov/mercury