

liquid mercury fact sheet

How to prevent and avoid exposure from mercury spills.

What is mercury?

Mercury is a naturally occurring metal. Liquid mercury is shiny and silver-white. It is odorless. Most people have seen liquid mercury sometime during their life in thermometers and barometers. It is used in blood pressure machines, as well. Mercury is also found in batteries, dental fillings, outdoor lighting, neon signs, and camera equipment.

How might I be exposed to liquid mercury?

- Breaking a thermometer or other mercury-containing instrument in your home
- Breathing vapors in air from mercury spills, incinerators, and industries that burn mercury-containing fuels
- Release of mercury from dental work and medical treatments
- Breathing contaminated workplace air or through skin contact during use in the workplace. Workplaces that commonly use mercury include dental, health services, and chemical industries.
- Practicing rituals that include mercury, such as some religious ceremonies
- Some populations use mercury to treat stomach problems

Can liquid mercury make me ill?

Because people are so different, this depends on several factors:

- How much mercury gets into your body
- How the mercury entered your body
- How long you are exposed to the mercury, and
- How your body reacts to the mercury

Liquid mercury is most harmful when it is inhaled. The amount of liquid mercury in the air is much greater when the air temperature is above 80 degrees Fahrenheit. Liquid mercury that is swallowed passes through the body. It is not absorbed.

The nervous system is very sensitive to mercury. Exposure to high levels of liquid mercury can permanently harm the brain or kidneys. If a pregnant woman is exposed, it can also harm her unborn child. Effects on brain function may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems.

Short-term exposure to high levels of liquid mercury vapors may cause many effects. They include lung damage, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation.

How does mercury affect children?

Mercury is most harmful to the developing fetus. Very young children are more likely to be harmed by exposure to mercury than adults. Children exposed to mercury may develop problems of their nervous and digestive systems. They might also suffer kidney damage. Mercury in the mother's body passes to the fetus. Harmful effects include brain damage, mental retardation, incoordination, blindness, seizures, and inability to speak.

It can also pass to a nursing infant through breast milk. However, the benefits of breast-feeding may be greater than the possible adverse effects of mercury in breast milk.

Pregnant women and children should keep away from rooms where liquid mercury has been used or spilled. If indoor air is tested after a mercury spill, women of childbearing age should not be exposed to mercury air vapor levels of 0.001 milligrams per cubic meter or greater.

How can families prevent mercury exposure?

Carefully handle and throw away products with mercury in them. Do not vacuum up spilled mercury. Vacuuming turns the liquid mercury into a vapor. A vapor can get into the air. That increases exposure. Avoiding vacuuming also keeps from contaminating the vacuum cleaner.

A small spill is the amount of mercury from a typical broken thermometer. If more mercury than from one thermometer is spilled, this is considered a large spill. Contact your county health department for help. They will direct you how to contact an expert for mercury cleanup.

Some people save mercury and store it in containers. This is dangerous because mercury may escape from broken or improperly sealed containers.

Properly throw away older medicines that might contain mercury. If you have any mercury, see if your neighborhood has a hazardous waste round up and bring it there, or you may call your county health department for advice.

- Teach children at an early age not to play with shiny, silver liquids.
- Replace mercury-containing products with safer options. Buy electronic thermometers and blood pressure devices. Recycle the mercury-containing products. They should not be thrown in the household trash.
- Carefully open shipped packages containing older glass/mercury equipment as fragile items can break and the mercury beads spread quickly.

What should I do if I am accidentally exposed to spilled mercury?

Large Spill—amount more than one broken thermometer

- Leave the area immediately
- Call your physician to see if you should be treated or tested
- Call your local county health department or the Florida Department of Health at 1-877-798-2772 for information about air testing contractors and mercury cleanup.
- Note: Cleanup costs and air testing are the responsibility of the home owner or business. The Florida Department of Health does not pay for cleanup or air testing indoors. Costs for mercury cleanup in the home is very expensive!

Small Spill—cleaning up a broken thermometer

- People not involved in the cleanup should stay away.
- Limit tracking by removing shoes and clothing.
- Contaminated materials and mercury collected from small spills may be thrown away with household trash. However, it should be placed outside in a safe place. Keep it away from children and pets until the trash is picked up.
- Pick up mercury beads with masking tape or a medicine dropper. Store the beads in a sealed plastic container. Then throw them out properly.
- Open doors and windows to air out the room.
- Carpeting where mercury has been spilled should be removed and discarded, starting with the spill room.

A broken fever thermometer is unlikely to cause illness for an unborn child, an adult or a child. This is especially true if a spill is cleaned up properly and quickly. Usually small mercury spills create small amounts of mercury in the air. This amount is generally not harmful. If liquid mercury is not cleaned up or if it becomes heated, the risks to people, especially young children, becomes higher.

Where can I get more information?

Please call your local county health department's environmental health section, or call the Florida DOH at 1-877-798-2772 (Joe Sekerke or Susan Bland) during regular business hours.

Another important number to call if needed:
Florida Poison Control Information Center at
 1-800-222-1222.

References

Agency for Toxic Substances and Disease Registry Toxicological Profiles. U.S. Department of Health and Human Services. Atlanta, Georgia. March 1999.
<http://www.atsdr.cdc.gov/toxprofiles/tp46.html>

Agency for Toxic Substances and Disease Registry, ToxFaq's, April 1999,
 CAS# 7439-97-6
<http://www.atsdr.cdc.gov/tfacts46.pdf>

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

Tests are available to measure mercury levels in the body. Blood or urine samples are used to test for exposure to liquid mercury. Your doctor can take samples. These samples are sent to a lab for testing.