



Department of Health

Bureau of Environmental Health and Radiation Protection

"Protect and improve the health of all Ohioans by
preventing disease, promoting good health and
assuring access to quality care."

Mercury Spills

Answers to Frequently Asked Health Questions

Mercury Spills

Most mercury spill sites in Ohio are elemental mercury (also called metallic mercury) spills. Metallic mercury is a shiny, silver, liquid metal that has no smell. Metallic mercury is the common liquid metal used in blood pressure cuffs, thermometers, switches, barometers, fluorescent light bulbs and batteries. Small amounts can also be found in dental fillings and in some older medicines.

Every mercury spill is unique and offers a different set of circumstances and scenarios. Based on experiences of spill responders, even a relatively small mercury spill such as a fever thermometer or a residential thermostat switch that isn't cleaned properly can produce high levels of mercury vapors in the air. Mercury vapors can cause harmful health effects in humans. This is especially true of young children with developing nervous systems or in a developing fetus.

IMPORTANT NOTES

#1 Pregnant women and children should be immediately removed from a mercury spill site.

#2 If a resident has already vacuumed the mercury spill, walked through the spill and tracked it to other parts of the house/building or otherwise extended the spill beyond its initial spill location, disregard the small mercury spill fact sheet and mercury cleanup kit document and contact the Ohio EPA's Spill Hotline at 1-800-282-9378.

#3 School spills should always involve contacting the Ohio EPA spill hotline and a mercury clean-up contractor.

#4 If a residential spill was properly contained and cleaned, testing may not be necessary for spills as small as a broken

fever thermometer. However, if a homeowner wants to ensure their residence is safe for re-occupancy after a mercury spill, they would need to have their home tested with a real-time mercury vapor analyzer.

Is there a test to show if you have been exposed to mercury?

Yes, there are two tests that can 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. For exposures greater than a few days, a urine test is recommended. Ask your doctor.

Is there a test to show how much mercury has vaporized (turned to a gas)?

Yes, and this is important. Environmental health and regulatory agencies use a real time mercury vapor analyzer employing atomic absorption technology to measure levels of mercury in the air. The mercury vapor analyzer may also be used after a spill cleanup to test the air to see if it safe for re-occupancy.

Has the federal government made recommendations to protect human health?

Yes. The U.S. Public Health Agency, the Agency for Toxic Substances and Disease Registry (ATSDR) has set a guideline of $\leq 1 \mu\text{g}/\text{m}^3$ (microgram per cubic meter) as the acceptable level for most residential occupancy, provided no visible mercury is present (see ATSDR Suggested Action Levels for Indoor Mercury Vapors in Homes).

Health Alert!!

Replace your mercury-containing thermometers and switches and replace them with mercury-free products. Contact your local Ohio EPA District Office, Solid Waste Management Division to ask how you can dispose of your old mercury thermometers and products that contain mercury.

NOTE: The Ohio EPA District Office, Solid Waste Management Division sponsors Hazardous Waste Collection events to collect the liquid (elemental) mercury. However, this program does not collect mercury-contaminated items such as carpeting, shoes, clothing, etc.

Mercury Spill Disposal

Ohio Homeowner: Currently there are no regulations that address mercury spills and the disposal of mercury-contaminated items from private households. A homeowner is instructed to remove all liquid mercury and mercury-contaminated items, place those items in a double bag system and remove them from inside the residence. Public health may encourage homeowners to dispose of these contaminated items during household hazardous waste collection events. But make sure your local household hazardous waste collection events collect mercury and mercury-soiled items. The health department may also suggest contacting a hazardous waste recycling company for removal. While we might recommend the above as possible options, there are no rules that state Ohio homeowners cannot place the mercury-contaminated items outside, to be thrown away with the weekly trash.

Ohio Business: The Ohio Revised Code and Ohio Administrative Code provide the authority to regulate facilities that generate, transport, treat, store or dispose of hazardous waste. A business with a mercury spill must contact a hazardous waste recycling company to dispose of mercury-soiled items.

Reference

The Agency for Toxic Substances and Disease Registry (ATSDR). March, 1999. Toxicological profile for mercury.

Ohio Environmental Protection Agency, Ohio Mercury Reduction Group (OMRG). February 2004

Where Can I Get More Information?

Ohio Department of Health
Bureau of Environmental Health and Radiation Protection
Radiological Health and Safety Section
246 N. High Street
Columbus, Ohio 43215
Phone: (614) 644-2727

