

Appliances – Household appliances, including clothing irons, top-loading freezers and washing machines contain mercury switches. Mercury-free alternatives are available.



Antiseptics – Mercurichrome is a skin antiseptic used to treat cuts and abrasions. Mercury free alternatives include Neosporin and Mycin.



Blood Pressure Gauges – Home blood pressure gages contain up to 70 grams (almost 1.5 pounds) of mercury. An aneroid blood-pressure unit is a mercury free option.



Barometers – A barometer is an instrument used to measure pressure in the atmosphere. A Bourdon tube gage is a mercury free alternative.



Old Chemistry Sets & Toys - Children's chemistry sets were once sold with liquid mercury. Some toys contained a drop of mercury that is moved through a maze, called a mercury maze. Check chemistry sets and toys to be sure they are mercury-free.



Household products release mercury into the environment and home when broken, mishandled or disposed. Proper care is important when dealing with mercury-containing products.

If spilled, mercury absorbs into household carpets and fabrics while slowly evaporating into the air, over time allowing for continued exposure.

* Mercury vapors are **odorless** and **invisible**

Knowing what products and items contain mercury and handling them properly will limit the risk of mercury exposure.

Mercury Spills

If mercury is spilled in your home, the following steps will help to minimize risk and exposure:



1. **NEVER** vacuum the mercury. It contaminates the vacuum and circulates mercury into the air.
2. **NEVER** use brooms or paintbrushes to clean up since mercury will disperse into smaller beads.
3. **NEVER** pour mercury down a drain. This leaves a hazard in the environment and can lead to further exposure.
4. **NEVER** walk around wearing shoes or clothing that was contaminated with mercury since it is absorbed in cloth and easily spread from one place to another.

Safe Steps -

- Remove children and pets from the area to prevent them from inhaling mercury vapors and tracking mercury to other areas.
- Remove contaminated clothing and shoes, place in a plastic bag, seal the bag and place it outdoors.
- Wash skin that came in contact with mercury with warm water and mild detergent.
- Open window to out of doors to ventilate, only if mercury was spilled in an area with an outside window.
- Turn off heating and air conditioning systems to avoid circulating contaminated air to other rooms.

Mercury Cleanup

The safest and best way to clean up a mercury spill is by hiring a licensed professional contractor.

Contact the following numbers for additional assistance:

- ▶ Local Fire Department
- ▶ Medina County Emergency Management Agency at (330) 722-9240.
- ▶ Ohio Environmental Protection Agency Spill Hotline at (800) 282-9378.
- ▶ Medina County Sanitary Engineers Office at (330) 723-9585.

For additional information, visit the Ohio Environmental Protection Agency Web site at:

www.opa.state.oh.us/

Mercury Recycling Program

The Medina County Sanitary Engineers Office has been participating with the Ohio Environmental Protection Agency's free mercury recycling program. We are able to accept mercury from the community at the following locations:

Medina County Central Processing Facility, located at 8700 Lake Road, Seville.

Medina County Sanitary Engineers Office, located at 791 West Smith Road, Medina.

Or, you may call the Sanitary Engineers Office at **(330) 723-9585** to schedule a free mercury pick-up.



The Medina County
Sanitary Engineers
Office presents:



Mercury in our Household

The Hidden Dangers to you
and the Environment

The Medina County Sanitary Engineers Office has been directed by the Ohio Environmental Protection Agency to minimize mercury discharge to the environment. A plan to reduce mercury in our community was prepared by the Engineers Office and approved by the EPA. Part of the plan includes mercury reduction in residential neighborhoods. With your help, we can reduce the potential risk of mercury in our homes and the environment. Thank you for your participation in meeting our reduction goals!

What is mercury?

Mercury is an element that occurs naturally in the earth's surface. Mercury is a shiny, silver liquid at room temperature. Due to its properties, including conduction of electricity, uniform expansion with temperature, and bonding ability to other metals, it is used in many household products.

Mercury does not degrade and is not destroyed by combustion. It cycles between soils, the atmosphere and surface waters. It is a toxic metal that accumulates in living tissue. Its toxicity can endanger living organisms and produce adverse health effects to humans.

Pathways to the Environment

Humans release mercury into the environment in several ways, including:

- ▶ product use and disposal;
- ▶ processing ores and manufacturing products;
- ▶ incinerating medical waste;
- ▶ municipal waste combustion; and
- ▶ burning fossil fuels for energy.

Once mercury is released into the atmosphere, it can travel long distances, settle on the earth's surface, wash into lakes and rivers and deposit in their bottom sediments.

Mercury in lakes and rivers is converted into methylmercury by certain naturally occurring bacteria. Fish ingest methylmercury by swimming or feeding in contaminated water. Methylmercury accumulates in fish tissue and is carried up the food chain to larger fish, animals and humans. Methylmercury is more dangerous than elemental mercury because the concentration of methylmercury increases as it goes up the food chain.

Many lakes and streams in Ohio, as well as waterways in neighboring Great Lakes states, have fish consumption advisories due to high levels of mercury.

According to the Ohio Department of Health, there is a statewide mercury advisory for women of childbearing age and children age six and under. These higher risk groups are advised not to eat more than one fish meal per week from any Ohio water body, and not more than one fish meal per month for any body of water where mercury is a noted contaminant.

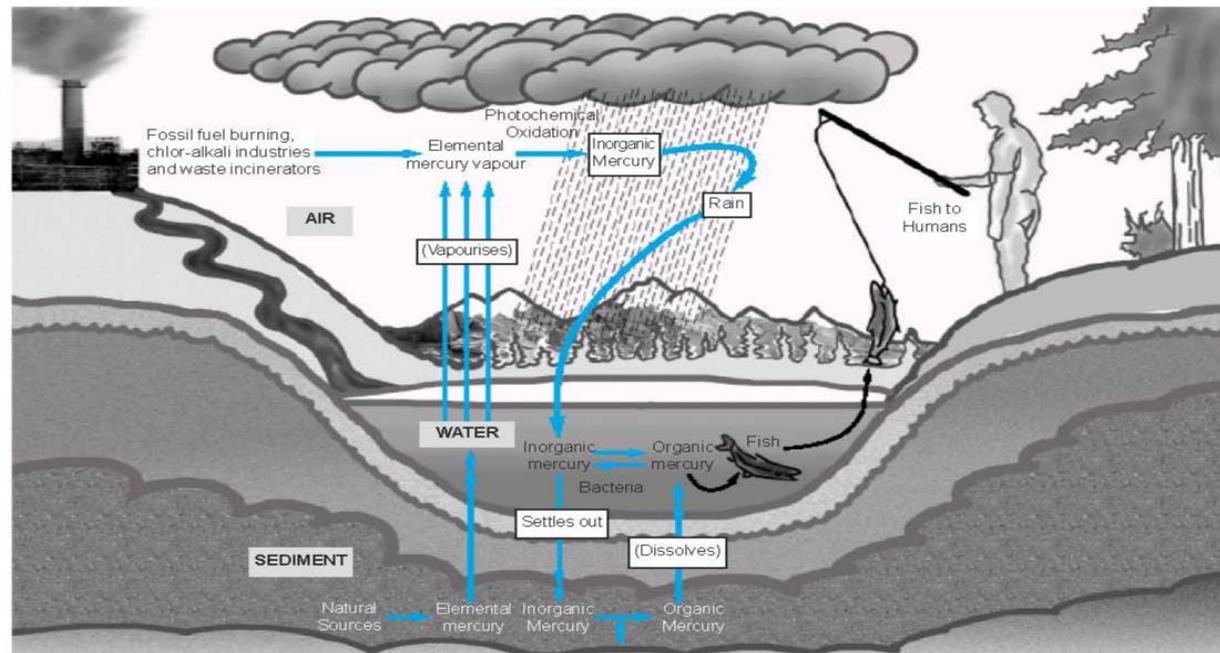


Figure 1 (Source: Global Mercury Assessment, UNEP, CGEIC)

Health Effects

- Mercury can be absorbed through the skin, inhaled or ingested.
- Symptoms of exposure to low doses of mercury include muscle tremors, irritability, and immune system dysfunction.
- High exposure may cause vision, speech and hearing impairment, respiratory problems, and possibly even death.
- Young children and fetuses are at the greatest risk because their nervous systems are still developing. Damage before birth or in infancy causes late development of walking, talking and possible lifelong learning problems.
- Your kidneys can sometimes allow your body to pass mercury without adverse health affects.

For more information on mercury poisoning, visit the Ohio Department of Health's Web site at: www.odh.state.oh.us/

Household Mercury:

Mercury is used in a wide variety of household products, including the following:

Thermometers – Mercury is used in thermometers because it expands and contracts with temperature changes. Alternatives include the electronic (digital) or red alcohol thermometers.



Household switches – Mercury conducts electricity and is temperature sensitive. Household thermostats often have mercury switches. Mercury-free versions are available.



Household lamps – Fluorescent, high intensity discharge (HID) and neon lamps contain mercury, often in vapor form. Mercury is released when bulbs are broken or incinerated. Alternatives are labeled as low mercury lamps and often can be recognized by their green end caps.



Batteries – Before 1980, most home batteries contained mercury. Now only “button” shaped batteries used in hearing aids, watches and other small devices contain mercury.



Paints – Latex paint produced before 1992 contained large amounts of mercury to prevent fungus growth.



Dental Amalgam – Mercury is used in amalgam dental fillings because it is durable, inexpensive and able to bond with select metals. According to the American Dental Association, the process by which amalgam is made renders the bound mercury component stable and therefore safe for use in accepted dental applications. When old or leftover amalgam is washed down a drain or incinerated, the mercury is released to the environment.

