

Mercury in our Environment



What is Mercury?

MERCURY IS A NATURALLY OCCURRING ELEMENT. Found in cinnabar, which is mined from the Earth's crust, mercury is refined and used in the manufacture of many products. In the home it may be found in thermometers, thermostats, fluorescent light bulbs, appliances, dental fillings and pharmaceuticals. It is also present in coal, oil and natural gas. Even though it has many useful qualities, *mercury is extremely toxic to our health and environment.*

Health Hazards

MERCURY CAN CAUSE DAMAGE to the human brain, spinal cord, kidneys and liver. It affects the ability to learn, speak, feel, see, taste and move. Mercury in the diets of wildlife can cause early death and inability to reproduce.

When items that contain mercury break, breathing the toxic vapors or touching the mercury can cause serious health problems. The largest release of mercury into the environment occurs when fossil fuels (primarily coal) are burned for energy or when products containing mercury are incinerated or buried in landfills that may leak. Mercury becomes airborne, enters our waterways and is consumed by fish.



Most exposure to mercury is from eating fish. ***Pregnant women or women who may become pregnant, nursing mothers and young children should limit their intake of fish.*** The EPA recommends that these women and children limit their intake of freshwater fish to 1 meal per week. In addition, the MA Department of Public Health (MDPH) recommends avoiding larger fish (swordfish, shark, king mackerel, tilefish and tuna steak) because these fish generally accumulate higher levels of mercury. It also recommends eating no more than 2 meals a week of fish not covered by advisories.

Affected children show lowered intelligence, impaired hearing and poor coordination.



The Mercury Trail From Airborne...to Ailment

① When coal, oil, or natural gas are burned in power plants, or when products containing mercury are buried or burned, mercury becomes a gas that rises into the atmosphere.



② Mercury gas attaches to water droplets and returns to earth's waterways in rain and snow.



③ Bacteria in the water and other processes convert mercury into methylmercury, its most toxic form, which is absorbed by plankton. And so begins the contamination of the food chain.



④ Methylmercury builds up in the tissue of fish and wildlife and eventually humans who eat the fish.



⑤ Mercury in the body affects the brain, spinal cord, kidneys, liver and more. It is especially dangerous to fetal development and small children.



Reduce Your Use!

Household Products That May Contain Mercury		Alternatives
Thermometers	Fever; candy; deep fry; oven; temperature	Digital; Geratherm™
Thermostats	All non-digital	Electronic models
Flame Sensors	Gas fired appliances with pilot lights	Electronic ignition models
Batteries	Button batteries; most other types pre-1994 (except lithium and nickel cadmium rechargeables)	Rechargeables; new alkalines (after 1994); lithium
Switches & Relays	Car hoods; clothes irons; chest freezers; automotive lights	Ask if mercury-free models are available (mechanical or electronic switches)
Teeth Fillings	Dental amalgam	Ask your dentist about mercury-free alternatives
Fluorescent Lights	Standard fluorescents	Compact and low-mercury fluorescents*
Games; Jewelry	drawing screens, maze games	Mercury-free alternatives are available
Shoes; Greeting cards (mercury in button battery)	Products that light up or make noise;	
Pharmaceuticals	Certain brands of: topical disinfectants; nasal sprays, hemorrhoidal ointments; eye & contact lens products	Read labels, avoid products with Thimerosal™; phenylmercuric acetate; merbromin; phenylmercuric nitrate

Resources

- ❖ Health Care Without Harm. PO Box 6806, Falls Church, VA 22040. noharm.org
- ❖ Mercury thermometer information: state.ma.us/envir/mercury.htm
- ❖ mass.gov/dph/beha/fishlist.htm (includes fish advisories)

**MA Toll-Free Mercury Hotline
1-866-9-MERCURY**

Center for Ecological Technology (CET)

1 (800) 238-1221 www.cetonline.org

112 Elm St., Pittsfield, MA 01201 (413) 445-4556

26 Market St., Northampton, MA 01060 (413) 586-7350

Mercury Spill Clean-up

IMMEDIATELY AFTER A SPILL keep all people and pets away! Minimize vaporizing of mercury; turn off heaters and turn up air conditioners. Open windows for at least two days if possible.

NEVER USE A VACUUM OR BROOM. The heat from a vacuum will evaporate the mercury. Using either will contaminate them and further distribute the mercury throughout the house.

DO NOT TOUCH THE MERCURY! Remove jewelry/watches and put on gloves, preferably rubber. Use a flashlight to locate the mercury.

To learn the correct method of cleaning a mercury spill, call the MA Toll-Free Mercury Hotline 1-866-9-MERCURY

Prevent Mercury Pollution

Reduce your use of electricity. Most mercury pollution comes from burning fossil fuels for energy. Buy products with the *Energy Star*™ logo.

***Purchase fluorescent bulbs.** Although they contain mercury, they ultimately reduce mercury pollution as they can use up to 75% less energy.

Read labels! When possible, purchase products that do not contain mercury.

Tell your public officials that you support legislation that would require labeling of products that contain mercury.



Did you know...

One teaspoon of mercury can contaminate a 60 acre body of water.

Safe Disposal

Products containing mercury should be disposed of safely. Call your Town Hall, Department of Public Works or Board of Health to determine the correct way to discard these items.

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