

# How to Safely Clean Up a Broken Thermometer

Broken mercury thermometers present health risks and are a challenge to clean up. Mercury is toxic to humans, fish, and animals; it can enter the body either through skin absorption or through inhalation of mercury vapors. Small beads of mercury vaporize at room temperature. Doing the wrong thing during clean up can place more people and animals at risk and spread the mercury contamination. MVMA offers this guide to help you and your staff safely clean up a broken thermometer.

## Before you begin:

- Change into old clothes and shoes that can be thrown away.
  - Remove gold jewelry.
  - Wear good protective gloves.
  - Increase ventilation in the room with air from outside.
  - Close off the room from the rest of the office.
  - If possible, run fans for at least one hour to help ventilate the room with outside air.
- Never sweep the area with a broom.
  - Never use a vacuum cleaner.
  - Never pour mercury down the drain.
  - Never wash mercury-contaminated clothes in a washing machine.
  - Never walk around if your shoes or socks are contaminated with mercury.
  - Never use household cleaning products to clean the spill, especially those containing chlorine or ammonia.

## To clean up the spill:

- Pick up the mercury with an eyedropper or scoop up mercury beads with a piece of heavy paper (e.g., index card), or use duct tape or other wide, sticky tape to pick up glass pieces and mercury beads. Be careful to avoid contact with your skin and clothes. Place the broken glass, mercury, and all contaminated materials (e.g., eye dropper, heavy paper, clothes, towels, etc.) in a plastic zipper bag and tightly seal with heavy tape. Place this zipper bag in a second zipper bag, tightly seal with tape, and then in a third zipper bag, which you will also tightly seal with tape. Place the bags in a wide-mouth, plastic container, close the lid, and seal it with tape.
- Use powdered sulfur (available at garden supply stores) to bind any remaining mercury. When combined with mercury, sulfur changes from yellow to brown. Add sulfur until there is no longer a color change. NOTE: Sulfur can be irritating to skin, nose, throat, and eyes, so use protective gear, including eye protection and a mask. Sulfur may also stain fabrics.
- Mercury will sink to the bottom in a sinkful of water. Remove as much water as possible without disturbing the mercury, then recover the mercury with an eyedropper. Place it in a wide mouth plastic container, close the lid, and seal it with heavy tape.
- If mercury enters a drain it will get caught in the sink trap. Working over a tray, remove the trap and pour the contents into a large mouth container. Close the lid and seal it with heavy tape.
- Label all bags and containers as "MERCURY WASTE."

### **Tips for disposal:**

- Call your medical waste provider about disposing of mercury.
- Call your local health department for the nearest community mercury collection center.
- Some human hospitals will take small amounts of mercury from residents as a community service. Call your local hospital environmental services department.
- Take mercury-containing devices and mercury-contaminated clothing to a Household Hazardous Waste collection or commercial hazardous waste facility.
- If you did use a vacuum, it is safest to dispose of the machine. Otherwise, it will continue to release mercury into the air.

### **Finally:**

- Wash your hands very well with soap and water afterwards. Shower well if you think any mercury touched other parts of your body.
- If weather permits, leave windows open for about two days to make sure the area is completely ventilated.

### **For your safety:**

To eliminate the need for such clean-ups in the future and to reduce the risk to yourself, staff, clients, and animals, replace broken (and unbroken) mercury thermometers with non-mercury alternatives.



### *Sources:*

MA Department of Environmental Protection

([www.state.ma.us/dep/recycle/hazards/mercury.htm](http://www.state.ma.us/dep/recycle/hazards/mercury.htm))

US Environmental Protection Agency ([www.epa.gov/glnpo/bnsdocs/hg/thermfaq.html](http://www.epa.gov/glnpo/bnsdocs/hg/thermfaq.html))

CA Poison Center ([www.calpoison.org/public/mercury.html](http://www.calpoison.org/public/mercury.html))

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