

Mercury in the Medical Office and in Medical Technology Classrooms in Vocational Technical Schools

Items that contain mercury:

- glass fever thermometers with the silver bulb
- blood pressure devices with the silver liquid
- topical disinfectants - mercurochrome or tincture of merthiolate

Mercury Fever Thermometers and Non-Mercury Alternatives

Glass fever thermometers with the silver bulb contain between 0.5 and 1.5 grams of mercury. Mercury fever thermometers should not be thrown in the regular trash or down the drain.

As an alternative to mercury glass fever thermometers, many schools are using the digital probe thermometers, which require AA batteries. Small digital thermometers are also an alternative. (These contain a button cell battery that may contain 5 - 50 mg of mercury and should be recycled through a battery collection program.) Non-mercury, non-digital fever thermometers are available including gallium-indium-tin and dot matrix models. These alternatives are available through medical supply companies and local pharmacies.

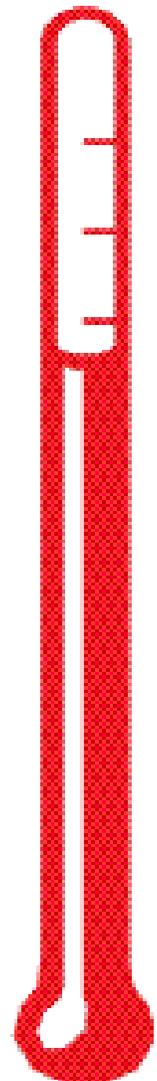
Mercury Blood Pressure Units and Non-Mercury Alternatives

Wall-mounted and portable blood pressure units (or sphygmomanometers) with the silver liquid contain approximately 110 grams of mercury. Older units may leak mercury. Most schools are replacing the mercury blood pressure units with aneroid sphygmomanometers. Studies have verified their accuracy. (See www.sustainablehospitals.org)

Topical Disinfectants and Non-Mercury Alternatives

Mercurochrome and tincture of merthiolate contain mercury. These disinfectants are not commonly used today and many alternative disinfectants are available and effective, such as alcohol and hydrogen peroxide.

Products that contain mercury should not be disposed of in the regular trash.



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Storing Unwanted Items

Unwanted mercury thermometers and sphygmomanometers can be managed as universal wastes (a category of hazardous wastes) in Massachusetts and should NOT be disposed of in the regular trash, nor should mercury spills be disposed of down the drain. Until you arrange for proper disposal, save old or broken mercury thermometers and sphygmomanometers in two sealed, non-breakable containers (e.g., two zip-locked plastic bags, one inside the other) in a safe place. Label the containers “Universal Waste - Mercury-Containing Devices” and indicate the date that they were stored. Universal wastes can be stored for up to one year before disposal. Dispose of these wastes as universal wastes. For more information, see the fact sheet “Establishing Hazardous and Universal Waste Collection Areas.”

How to Handle a Mercury Spill

If a thermometer breaks or a sphygmomanometer leaks and the spill is less than two tablespoons, you may be able to clean it up yourself. If you have a mercury spill kit, follow the instructions that come with it. Otherwise, follow these instructions:

- Ventilate the room to the outdoors and keep people and animals out of the area.
- Remove all jewelry from hands and wrists.
- Wear rubber gloves to avoid mercury contact with the skin.
- Use an eyedropper or two pieces of stiff paper to scoop the mercury into an unbreakable container.
- Place all contaminated cleaning materials in two sealed, non-breakable containers (one inside the other).
- Remove contaminated carpeting and store with contaminated cleaning materials.
- Label the containers “Hazardous Waste - Mercury Spill Clean Up Materials” and indicate the date that they were stored. Store in an appropriate location.
- Dispose of all contaminated materials as hazardous waste.

- See the fact sheet “Establishing Hazardous and Universal Waste Collection Areas” for more information.
- Replace the item with a non-mercury alternative.

If the spill is greater than two tablespoons, you should get professional spill response assistance. First, close off the area immediately. Call the Massachusetts DEP’s Spill Response Center at 888-304-1133, or your local fire department. Turn down the temperature to below 65 degrees Fahrenheit. Open windows and ventilate the area. Surround and contain the spill as much as possible. For a release to the environment of one pound (approximately two tablespoons) or more, reporting to the Spill Response Center is required.

NEVER use a vacuum cleaner or broom to clean up a mercury spill as this causes mercury to vaporize into the air, causing greater potential for health risks.

NEVER pour mercury down the drain. Mercury is heavier than water and may get trapped in the plumbing system and continue to vaporize into the room, causing potential health risks. It will also contaminate waste water.

Additional Information

For additional information on thermometers, sphygmomanometers and other medical devices that may contain mercury, see the website of the Sustainable Hospitals Project at the University of Massachusetts Lowell (www.sustainablehospitals.org) or the website of Health Care Without Harm (www.noharm.org).

For more information, contact the Massachusetts Mercury Hotline at 1-866-9MERCURY (1-866-963-7287).

Preservatives

Mercury compounds were used as preservatives in contact lens solutions and nasal sprays. The mercury compound may be listed as thimersol, merthiolate, or by a specific mercury compound name. Take care not to purchase or use these products that contain a mercury preservative.