



## ***INDOOR LIQUID MERCURY SPILLS***

### Frequently Asked Questions



#### **I just had a mercury spill. What should I do?**

It depends on the amount of mercury that's been spilled. A fever thermometer usually contains less than one gram of mercury, an amount no larger than the eraser on a wood pencil. With helpful information like that found in the [“When Mercury Spills”](#) fact sheet, most people can safely clean up a small spill. Amounts larger than this, like mercury from older thermostats or other devices, might require professional assistance, special equipment and chemicals to clean up to safe levels. Spills larger than one pound of mercury must be reported to state and federal agencies according to the directions contained in the MDEQ document [“Steps for Responding to a Large Elemental Mercury Spill.”](#)

#### **What amount of mercury spilled in a room makes it a hazardous or unsafe atmosphere?**

No amount of liquid mercury spilled indoors can be assumed to be non-hazardous. The amount of mercury vapor in the air following a spill depends upon several factors. The most important of these factors are the temperature, the size of the room and the amount of mercury spilled. Even a small spill, like from a broken thermometer, can produce hazardous amounts of vapor if the room is small enough, warm enough and people spend a good deal of time there, like in a small bedroom. An extremely hazardous situation is a mercury spill onto a hot surface (for example, a hot burner on a stove) that will cause mercury to vaporize very rapidly.

#### **Do I really have to leave my house while a mercury spill is being cleaned up?**

**Yes.** Cleaning up a mercury spill will usually increase the amount of mercury vapor in a room. It is best for anyone who is not involved in a cleanup to be away from the activity, especially children under 6 years of age and pregnant women. These are the people most sensitive to harm from mercury exposure.

**For cleanup of visible mercury beads, should I use duct tape, index cards coated with hairspray, an eyedropper or syringe, powdered sulfur or zinc or shaving cream?**

Any of those methods will work depending on the location of the mercury.

**Will powdered sulfur keep mercury from releasing vapors?**

**Yes.** Powdered sulfur will attach to elemental mercury and act to stop the mercury from releasing vapors. Powdered sulfur will also darken in the presence of mercury if left on the suspect area overnight which will help to locate the mercury.

**Is it ever okay to use any kind of vacuum cleaner on a mercury spill?**

**No.** Never use a vacuum cleaner to collect liquid mercury off of mercury contaminated materials. Not only will the vacuum cleaner become contaminated beyond saving, it will blow mercury vapors into the air. It will also break the beads it does not pick up into smaller beads that give off more vapor more rapidly. Only professional environmental contractors have vacuum cleaners with specialized filtration systems that can safely pick up mercury. These are not usually available to the public.

**I removed all the visible beads from my carpet. Is it safe now?**

**No.** Mercury beads will sink to the lowest possible level in carpet and can even pass through the backing of some carpet. Mercury spilled on or tracked across carpet by shoes cannot be completely removed. Contaminated areas must be carefully cut into manageable sections (for example, 3 foot by 3 foot squares), folded to keep beads from falling out and placed in a garbage bag, which is then sealed. It can then be safely carried through unaffected parts of the home. The pad beneath contaminated carpet must also be cut, folded and removed in this same manner.

**I can't see any more beads on the floor but there may be some in the cracks between tiles or boards. What should I do now?**

If the additional amount of mercury that remains in seams or crevices is small, you may be able to seal it in place using an epoxy or polyurethane sealant or similar material. Having a professional with a mercury vapor analyzer determine the amount of contamination present may also be helpful.

**How do I dispose of my contaminated carpet and the beads of mercury I was able to capture?**

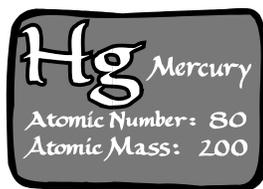
It is best to collect any free-flowing beads in double lockable plastic bags or other unbreakable airtight containers. Then contact your local health department for disposal advice. Some counties have household hazardous waste programs or Operation Clean Sweep sites to help you. Store the bags outside living areas until you deliver it to the disposal site. Carpeting, rugs, pillows etc. can usually go into household trash collection if your area's solid waste goes to a landfill rather than an incinerator. Be sure to make contaminated vacuum cleaners, other appliances, and furniture unusable (for example, disassemble furniture or cut off electrical cords) so no one will retrieve them and contaminate their home with them.

### **What should I do about walls, drapes, clothing, and furniture that did not have direct contact with mercury?**

Generally, if a room was closed up for days after a spill, causing mercury vapor to accumulate and concentrate in the air, you may need to test these items separately because they could become contaminated by mercury-saturated air. If the spill was discovered and addressed promptly, this type of secondary contamination is unlikely to happen.

### **I washed contaminated clothes in my washing machine. Can I keep using my washing machine?**

Maybe, depending on the amount of mercury placed into the washing machine. Mercury will amalgamate, or attach itself, to metal parts of objects like washing machines and stay there giving off vapor even after the contaminated clothing has been removed. The amount of vapor it continues to give off into the room where it is located depends upon several factors. If you've washed clothes contaminated with mercury, have a professional test the machine and space with a mercury vapor analyzer.



### **How should I wash my hands after they've come in contact with mercury?**

Washing your hands after being exposed to mercury is a good idea. Soap and water works well.

### **I wore these shoes when I was walking around the affected area. Do I need to dispose of them?**

Possibly. If your shoes might be contaminated it is best to keep them in a plastic bag and have them tested for mercury through your local or state health department. If you are not able to get them tested, it is best to dispose of them or put them in a warm (greater than 75 °F) place outdoors for a few months so any mercury they have can heat up and vaporize out of them.

### **Can I put articles contaminated with mercury in my dryer to heat them and drive off the vapors faster?**

No. Heating up items and ventilating the vapors that come off them would quicken the rate at which the mercury leaves the item. However it would put more mercury into the air in your house more quickly and might contaminate the dryer. We do not recommend this approach.

### **Can I save jewelry that has mercury on it?**

It's not likely. Jewelry that comes in contact with mercury beads will not only change color, it will absorb the mercury and eventually fall apart. It is almost impossible to find a jeweler who is able to save a piece of jewelry that is mercury contaminated.

**My child broke a thermometer in his or her mouth. Is there a hazard associated with this?**

Not usually. The health professionals at the two poison control centers in Michigan have never had a report of a child who has been injured by breaking a thermometer in their mouth and swallowing the pieces. The mercury is likely to pass through the child's body and be excreted with almost no mercury absorption taking place.



**How much mercury is in a home (“fever”) thermometer?**

A “fever” thermometer can contain between a half a gram and one and a half grams of mercury, an amount smaller in appearance than the eraser visible on the end of a new pencil. Removed from the thermometer and placed on a level surface the bead would flatten out to a circle smaller than the diameter of a dime.

**If most of the mercury from the broken thermometer stayed in the bulb do I need to worry much about the rest?**

This does happen occasionally when the child's temperature is low and the thermometer breaks above the filled level of the mercury column. If you are absolutely confident that almost all of the mercury remains contained in the thermometer, place all of it in two sealable plastic bags or a non-breakable container like a plastic bottle. You may dispose of it appropriately and not be concerned about the mercury contaminating your home.

**Will my homeowners insurance pay for mercury testing and cleanup?**

Sometimes it will. It depends on your policy and your insurance company. It is always worth checking. If your agent requires documentation of the health hazard that mercury presents, your state or local health agency can probably assist you with a letter or phone call.

**What is considered the normal or background amount of mercury that is found in a home?**

Background levels of mercury in the home depend upon the levels in the outdoor air near your home. Typically, homes that have not had a mercury spill have minimal amounts of mercury vapor in the air that measure less than 20 nanograms per cubic meter of air (ng/m<sup>3</sup>). The background amount can also be affected by vapors from substances that might be found in the home that contain small amounts of mercury like chlorine and gasoline.

**What medical tests can we get to find out if we have been seriously exposed to mercury?**

If your doctor thinks you need to be tested following a mercury exposure, he or she can order a blood or a urine test. A blood test is a better measurement following a recent exposure (after less

than a week). A urine test is better after a longer or chronic exposure. A fish meal within three days of the test can affect the results of a mercury test, especially a blood test.

### **What can be done if the results of those tests are high?**

If your test results call for it, your doctor can prescribe medication that will cause your body to excrete, or get rid of, mercury. Stopping the exposure by cleaning up the area and ventilating the mercury is usually sufficient. Your body will gradually rid itself of most of the mercury.

### **How do I find out if my pet (cat, dog, ferret...) has been seriously exposed to mercury?**

You can ask your veterinarian if he or she thinks testing is appropriate given the circumstances of your pet's exposure.

### **Is the mercury in thermometers and thermostats the same as the mercury in fish?**

No. Mercury in these devices is in a form called metallic or elemental mercury. It is different from methyl mercury, the form found in fish. However, when released to the air, elemental mercury can change to other forms of mercury.



### **How do I know if I have clean up all the spilled mercury?**

If you have a good idea where a small amount of mercury spilled, you cleaned it up quickly and were careful not to spread it anywhere else, you are close to being finished. What remains is to ventilate mercury vapors from the area to the outdoors, for about a day, regardless of the season. If a larger amount of mercury is involved or there is some doubt where it spilled or was tracked, you may need to have the area screened with a mercury vapor analyzer. When in doubt, call your local health department or the Michigan Department of Community Health

### **Where can I get more information?**

To find your **local health department**, go to <http://www.malph.org/page.cfm/18/>. Or contact the **Michigan Department of Community Health** at 517-335-8350 or 1-800-668-6942 or go to our website, <https://www.michigan.gov/mdch-toxic>.