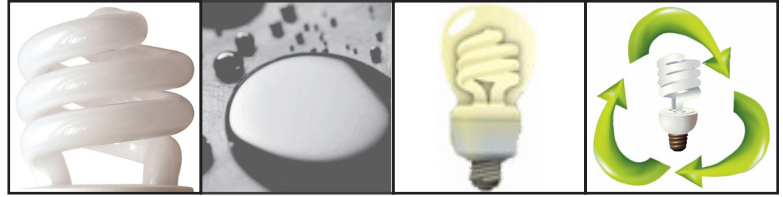


CFLs & Mercury



What is in a compact fluorescent light (CFL) bulb?

A CFL bulb is made of glass, a ceramic and metal base, a powder called *phosphor*, and a small amount of mercury.

The mercury in the bulb is in the form of an invisible vapor or as part of the phosphor coating on the inside of the glass.

CFL bulbs use less energy than a regular light bulb.



Is it harmful to be in the room where a CFL bulb has broken?

The amount of mercury vapor that is released from one broken CFL bulb is not enough to make anyone sick.



However, to avoid any exposure to mercury, we recommend that you leave the room for at least 15 minutes before cleaning up the broken bulb. If you can, open a door or window to the outside to let fresh air into the room where the bulb was broken.

See page 2 for cleanup instructions.

Should I use regular light bulbs instead of CFLs?

Although CFLs are safe to use, we recommend that pregnant women and children under six years of age are around mercury as little as possible.

If the light bulb will be used in play areas, such as children's bedrooms or playrooms, where there is greater risk that a bulb may be broken, you may want to consider using standard light bulbs or LED bulbs.

LED bulbs, or *light emitting diode* bulbs, do not contain mercury and offer greater energy savings than both standard and CFL bulbs.



NOTE:

These directions are only to be used for broken CFLs. If you break a thermometer or other item that contains mercury, please call your local health department for advice before trying to clean it up on your own. Additional advice can be found at <http://www.michigan.gov/mercury>.

It is not necessary to hire a professional to clean up a broken CFL.
By following the directions below, you can safely do the cleanup yourself.

How to clean up a broken CFL bulb:

- 1. Open a window or door or turn on an exhaust fan. Leave the room for 15 minutes.**
Any mercury vapor that is in the room will be removed to the outdoors. **Do not vacuum yet.*** Vacuuming will spread any mercury vapor that is in the room to other areas. Airing the room out for 15 minutes will get rid of most of the vapor from the bulb. (Heating the room while airing it out will make this process go faster.)
- 2. Clean up the broken glass.**
 - **For a break on a hard surface:** Pick up the pieces like you would with any broken bulb. Put the broken pieces in a sealable plastic bag. A damp rag that you can throw away or paper towel should be used to do a final wipe of the area. Put the rag or paper towel in the bag with the broken bulb pieces, seal the bag, and throw it away in your trash, taking it directly outside if possible.
 - **For a break on carpeting or other soft items like furniture, toys, bedding or clothes:** It is not necessary to remove your installed carpet due to a broken CFL. Collect and bag the broken parts using the above steps. Use the sticky side of duct tape or packaging tape to pick any remaining powder and pieces of glass. Put the tape in the bag. Seal the bag and throw it away in your trash, taking it directly outside if possible. It is safe to then wash items in the washing machine like you normally would.
- 3. Vacuum the room.**
After cleaning up the larger pieces of glass by hand, vacuum to clean up any small pieces of glass. Keep your windows or door open while you vacuum. After vacuuming, change the vacuum cleaner bag or empty its dust cup and wipe out with a pre-moistened wipe. Continue to air out the room to remove any remaining mercury vapor as long as you can, up to several hours if possible.

*** If you already vacuumed a broken CFL:**

- **For a recent break (within a couple of days of the break):**
Air out the house for up to several hours to get rid of any remaining mercury vapor and change your vacuum cleaner bag or wipe out the dust cup.
- **For a break that happened one week ago or more:**
Change your vacuum cleaner bag or wipe out the dust cup, but no further actions are needed. The mercury vapor will have left your home in this time.

What should I do with my CFL bulb when it burns out?



The best way to get rid of unbroken bulbs is to recycle them.

Check with your local home supply store or the store where you bought your bulb to see if they recycle CFLs.

You can also call your local health department, local recycling center, or visit <http://earth911.com/household/light-bulbs/> to find recyclers.

If you throw a CFL bulb out, seal it in two plastic bags, one inside the other, and throw it in the outside trash. Never burn a CFL bulb.

Are there other sources of mercury in my home that are a concern?

- A mercury fever thermometer has about **100 times more mercury** than a CFL bulb.
- Some older furnace thermostats contain **1000 times more mercury** than a CFL.



If you break a thermometer, thermostat or other item that contains mercury, please call your local health department for advice before trying to clean it up on your own.

Additional advice can be found at <http://www.michigan.gov/mercury>.

Where can I get more information?

For more information on this and other environmental health issues, please contact the Michigan Department of Health and Human Services at 1-800-648-6942.

You can also find information on these websites:

- <http://www.michigan.gov/envirohealth>
- <http://www.michigan.gov/mercury>

