

Compact Fluorescent Light Bulbs: What To Do If A Bulb Breaks

If a Compact Fluorescent Light Bulb (CFL) accidentally breaks in the home, stay calm. It is not an emergency. You can do the clean-up yourself if you follow the information in this fact sheet.

CFLs contain a small amount of mercury, about the size of a pen point. Mercury forms a vapor that you can inhale. If a bulb breaks, it needs to be cleaned up properly to protect everyone in the house.



Using CFLs can reduce energy bills and help save the environment.

Before Cleaning Up



1. Keep infants, small children, pregnant women, and pets out of the room where the bulb broke.
2. If you are pregnant, do not do the clean-up yourself. Find someone to do the clean-up for you.
3. Turn off forced hot air heat, central air conditioners, and fans.
4. Open windows to allow fresh air in.
5. Leave the room for at least 15 minutes to allow the room to air out before beginning clean-up. During this time, read through these instructions and gather the supplies you will need for cleanup.

Before You Go Back To The Area Gather the Following Supplies:

- Disposable gloves
- Flashlight
- Duct tape or other sticky tape
- 2 index cards or stiff pieces of paper
- Zip-lock bags or glass jars with tight fitting lids
- Damp paper towels or rags
- Portable window fan (optional)



Clean-Up Steps

Keep people and pets out of the room where the bulb broke. This will prevent them from potentially inhaling mercury vapor and from tracking mercury to other parts of the house on shoes or paws. Infants, small children, and pregnant women are the most susceptible to mercury vapor, so special care should be taken to keep them out of the room.

During the initial clean-up, it is important to avoid vacuuming, sweeping, and using metal dust pans.

Do Not Vacuum



Do Not Sweep



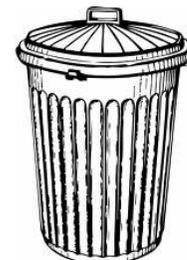
Do Not Use
Metal Dust Pans



Hard Surfaces:

If a CFL breaks on a hard surface like tile, hardwood or linoleum floor, do the following:

1. Close the door to the room being cleaned if possible.
2. Put on disposable gloves.
3. Carefully pick up all large pieces of glass, and put them in a zip-lock bag.
4. Use index cards or stiff pieces of paper to push tiny bits of glass, powder, and other debris into small piles. Carefully lift each pile and place into a zip-lock bag(s) or glass jar with a tight fitting lid. [This step is not applicable to carpet/area rug clean-up]
5. Use sticky tape to pat the remaining debris. Try to pick up as much glass and powder as you can. Replace with new pieces of tape when the stickiness diminishes.
6. Shine a bright flashlight in and around the area to look for glittering bits of glass or mercury. Pat the area with sticky tape again until you do not see any more glittering with the flashlight.
7. Put used tape and stiff cards into a zip-lock bag(s) or a glass jar with tight fitting lid.
8. Pat the area with damp paper towels or rags to further clean-up debris. Put the used paper towels, rags, and gloves in the zip-lock bag/jar with other debris.
9. When you are finished with the clean-up, put the zip-lock bags/jars in an outdoor trash can immediately. Getting the waste out of the house right away is an important safety step.
10. Wash your hands and face after the waste has been removed from the house.
11. Continue to ventilate the room for as long as possible (at least several hours). In addition to opening windows, a portable fan may be placed in a window with the air blowing to the outside to help exhaust the "dirty air" out of the building.



Carpets/Area Rugs:

If a CFL breaks on carpeting or area rugs, it can be either treated in place or removed from the home. Either way, you will need to follow steps 1-11 under "Hard Surfaces" page 2.

Treatment

If the carpet is left in place, the area should be ventilated during and after the removal of debris. Clean-up visible debris on the carpet by following steps 1-11 under "Hard Surfaces" page 2.

Removal

The small amount mercury inside of a CFL can penetrate carpet and continue to be emitted at very low levels for a long time. This may continue even after the initial clean-up. If a CFL breaks on carpeting, consider removing the section of carpet where the breakage occurred, especially if young children or pregnant women frequently use this room. If the bulb breaks on an area rug, consider discarding the entire rug.

Disposal & Transportation After Removal

- Dispose of a carpet/area rug contaminated by a broken CFL by carefully rolling it up and placing it in a large plastic bag. You can also use several plastic bags duct taped together to wrap around the carpet. Place it in an outdoor trashcan right away.
- If you will be transporting it to the dump in your vehicle, keep it outside until you make the trip. Make sure the rug is wrapped in plastic so it cannot contaminate your vehicle.

Furniture With Fabric Covering:

If a CFL Breaks on a soft surface like an upholstered couch, chair, or bed, do the following:

1. Follow steps 1-11 described under "Hard Surfaces" page 2 .
2. When finished, you may want to consider placing the item outdoors (in the sunlight if possible) to air out. A covered porch or garage can also work in inclement weather. Do this for as long as possible (at least several hours).

House Cleaning/Vacuumping

The next several times you do your regular house cleaning/vacuumping in the room where the CFL broke, follow the directions below.

1. Keep children, pregnant women and pets out of the room.
2. Turn off forced hot air heat/central air conditioners, and fans before vacuumping.
3. Open the windows to ventilate the room for several hours during and after vacuumping.
4. After vacuumping the carpet or area rug, the vacuum cleaner may contain a small amount of mercury. Therefore, remove the vacuum bag and place it into a zip-lock bag or other type of sealable plastic bag.
5. If using a bagless vacuum, empty the collection cup into a zip-lock bag and wipe the inside of the cup with a damp paper towel or rag. Put the used paper towels/ rags into zip-lock bags for disposal.
6. When you are finished with the clean-up, immediately put the zip-lock bags in an outdoor trashcan. Getting the waste out of the house right away is an important safety step.

Health Effects

Health experts do not expect to see illness from exposure to broken CFLs in most people. This is because CFLs contain such a small amount of mercury. However, even small exposures can affect the developing brain and central nervous system in fetuses and young children. This is why pregnant women and young children should stay out of a room where a CFL has broken until several days after the clean-up.

Symptoms related to mercury exposure include increased irritability, nervousness, shyness, tremors, and changes in vision or hearing, and memory problems. These symptoms are not generally seen from a broken CFL exposure, but may be seen in people exposed to large amounts mercury vapor.

Tips To Prevent Breaking CFLs In the Home

- Consider not using CFLs in playrooms, children's bedrooms, and other areas where there may be an increased chance of bulb breakage.
- Consider putting a drop cloth on the floor when changing CFLs.
- Consider not storing too many spent CFLs in the home before recycling. This reduces the chance of accidental breakages.

Recycling CFL Bulbs

- Some of the big box hardware stores like Home Depot and Lowes, and the retail store Ikea accept spent CFLs for recycling.
- Check with your town's Department of Public Works, local recycling coordinator, or CT DEP to see if they have additional options for recycling spent CFLs bulbs.

Resources

US Environmental Protection Agency Recycling and Disposal:

<http://www2.epa.gov/cfl/recycling-and-disposal-after-cfl-burns-out#retailers>

Mercury Spills, Disposal, Cleanup:

<http://www.epa.gov/mercury/spills/#flourescent>

CT Dept of Public Health

860-509-7740

<http://www.ct.gov/dph/mercury>

CT Dept of Energy & Environmental Protection

1-877-537-2488

Compact Fluorescent Lamps

http://www.ct.gov/deep/cwp/view.asp?a=2708&q=378846&deepNav_GID=1646

