

CFL FACTS

Safe and Efficient: *what you need to know about mercury and CFLs*

Replacing old incandescent bulbs with compact fluorescent lamps (CFLs) is one of the easiest and most cost-effective ways to reduce your energy costs. CFLs can last 10 times longer than incandescent bulbs and use only 25% of the electricity - saving you up to \$30 in energy costs over the life of the bulb.

CFLs contain a small amount of mercury which makes the bulb so energy-efficient. Despite the content of mercury in the bulb, CFLs are safe to use. No mercury is released when the bulbs are in use and they pose no danger when used properly.

What is mercury?

Mercury is a naturally occurring metal which has several forms. The metallic mercury is a shiny, silver-white, odorless liquid. If heated or allowed to evaporate, it is a colorless, odorless gas. When liquid mercury is spilled, it forms droplets that emit vapors into the air. However, when mercury emissions deposit into lakes and oceans, they can transform into a highly toxic form that builds up in fish.

What household items contain mercury?

CFLs contain about five milligrams of mercury sealed inside every glass tube. That is one hundred times less mercury than is found in a single dental amalgam filling or traditional glass thermometer. These are some common items that contain mercury:

- Thermometers, thermostats, barometers and electrical switches
- "Silver" dental fillings
- Some light bulbs: CFLs, fluorescent tubes, high-intensity, mercury vapor, high-pressure sodium and metal halide
- Clock pendulums
- Athletic shoes, toys and cards that light up or make noise

Disposing of burned-out CFLs

Mercury doesn't make CFLs unsafe but it does place them alongside many other household items that need to be used and disposed of in a responsible manner, such as paint and batteries. Up to 95 percent of the mercury contained in CFLs can be recovered when the bulbs are recycled properly. Here are a couple of locations in your area where used CFLs can be recycled at no charge:

North Branch Water & Light customers can bring their used bulbs to the utility free of charge for proper recycling.

Menards and Home Depot also accept used CFLs free of charge.



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Disposing of broken CFLs

U.S. Environment Protection Agency guidelines indicate that you can safely clean up the spill yourself if the mercury spill is less than one to two tablespoons and is limited to a small area. However, if the spill is larger, try to isolate the contaminated area and call your local environmental agency. The small amount of mercury in a fluorescent light bulb is not likely to cause health issues, but it still should be cleaned up immediately.

Before beginning clean-up

- Clear the area of all people and pets and keep them away from the spill.
- If possible, isolate the spill by closing all doors between the spill and the rest of the house.
- Turn off all ventilation systems (heating, a/c, fans) unless directly vented to the outdoors
- Open windows in the area of the spill.
- Wear old clothes and shoes that can be thrown away if they come into contact with the mercury.
- Put on rubber gloves, if possible.

On a smooth surface

- Use rubber gloves and carefully use a paper towel or damp sponge to wipe up all glass fragments and fine particles, and seal the remnants in a plastic bag. Do not use a vacuum (which will make the mercury airborne) or a broom (which will break up the mercury droplets and increase exposure).
- Gather the mercury droplets using two pieces of thick paper or plastic (such as index cards). To look for additional mercury beads use a flashlight held at a low angle to look for additional beads around the room.
- Either use an eye dropper to collect the beads or scoop up the beads with the paper. Put the mercury and all contaminated materials in a plastic bag and seal.
- Use duct tape to pick up smaller, hard-to-see droplets. Dispose of the tape in a sealed plastic bag.
- Wipe the area with a damp paper towel or sponge and place in the sealed plastic bag.
- Recycle all mercury, if possible, and throw the sealed plastic bag into your garbage.

If on a rug or carpeting

- Either use an eye dropper to collect the beads or scoop up the beads with the paper. Put the mercury and all contaminated materials in a plastic bag and seal.
- Use duct tape to pick up smaller, hard-to-see droplets. Dispose of the tape in a sealed plastic bag.
- Wipe the area with a damp paper towel or sponge and place in the sealed plastic bag.
- Recycle all mercury, if possible, and throw the sealed plastic bag into your garbage.

When you are finished...

- Dispose of everything you think may have come into contact with the mercury.
- Wash your hands and take a shower if you think other body parts may have contacted mercury.
- Keep the area well ventilated for at least 24 hours after the clean-up and continue to keep pets and children away from the clean-up area during that time.
- Never pour mercury down the drain. Moreover, do not wash mercury-contaminated clothing in the washing machine or wear clothes that were contaminated.

For more information on the proper disposal of CFLs or the safe clean-up of mercury spills, please visit:

www.energystar.gov

• www.earth911.org

• www.epa.gov/mercury

*Note: These guidelines are based on good industrial hygiene practices.
No assessment of the effectiveness of the clean-up methods described has been made*



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