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HEALTH WATCH**

Fact Sheet: Compact Florescent Light Bulbs (CFLs)

What are the environmental benefits of CFLs?

A CFL uses 75% less energy than an incandescent light bulb and lasts 6-10 times longer. Lighting accounts for close to 20 percent of the average home's electric bill. If every home in America replaced just one incandescent light bulb with an ENERGY STAR qualified CFL, it would save enough energy to light more than 3 million homes and prevent greenhouse gas emissions equivalent to those of more than 800,000 cars annually (Source: US Department of Energy). The highest source of mercury in our air comes from burning fossil fuels such as coal, the most common fuel used in the US to produce electricity. A power plant will emit 10mg of mercury to produce the electricity to run an incandescent bulb for five years compared to only 2.4 mg of mercury to run a CFL for the same time (Source: US Environmental Protection Agency).

How do I choose a CFL?

When replacing an incandescent light bulb with a CFL, choose a lower wattage. A 75 watt incandescent bulb gives out about the same amount of light as an 18 watt CFL. Match the number of lumens of the old bulb rather than the number of watts. If you want the same light quality as an incandescent light, look for a CFL labeled "soft white" or "warm" rather than "daylight" or "natural light." Look for CFLs labeled for use with dimmers or three-way switches. CFLs are available in many shapes and sizes, including floodlights and candelabras. Use CFLs that are rated for low temperatures outdoors.

Is the mercury in CFLs hazardous to my health?

Most CFLs contain about 5 mg of mercury. Some may contain as much as 30 mg, others as little as 1 mg. This is a small amount compared with the 500 mg typically found in mercury thermometers. But even this small amount of mercury can pose a health risk, so it is important to clean up a broken CFL properly. Keep cleanup instructions handy. Mercury vapors are particularly hazardous for infants and small children. The Mercury Policy Project recommends not using CFLs in a small child's or infant's bedroom, or in a lamp that is likely to be knocked over. (www.mercurypolicy.org).

What do I do with an unbroken, used CFL?

Used CFLs should be recycled at a special facility. The most convenient disposal option for most people is to place unbroken used bulbs in a sealed plastic bag and take them to the closest Home Depot. Home Depot will recycle the bulbs at no cost. For other options, go to www.Earth911.org.

Can I buy locally produced CFLS?

We are unaware of any CFLs manufactured in the United States. TCP, which manufactures nearly 1.4 million CFLs every day, including a brand sold at Home Depot, is headquartered in Aurora, Ohio outside Cleveland. But TCP manufactures its bulbs in Chinese plants. General Electric, which has incandescent bulb plants in the Youngstown, Ohio area, makes its CFL bulbs in Chinese factories. Xiamen Topstar Lighting is a major Chinese supplier of GE's CFLs. A 2007 study by Policy Matters Ohio found that Xiamen routinely violated labor laws, and that many workers at the plant were unaware they were making a product containing toxic mercury. www.policymattersohio.org/GoodBulbsBadJobs.htm. Union groups have started a campaign to get GE to invest in CFL factories in the US, called Screw that Bulb. <http://www.unionvoice.org/campaign/screwthatbulb>.





How should I clean up a broken CFL?

- ***DO NOT USE A VACUUM OR BROOM TO CLEAN UP A BROKEN CFL***
- Have people and pets leave the room, and don't let anyone walk through the breakage area on their way out.
- Open a window and leave the room for 15 minutes or more.
- Shut off the central forced-air heating/air conditioning system, if you have one.
- *Children, pregnant women and pets should stay away from the area until you complete the cleanup.*
- *To clean up the broken CFL use disposable gloves if available (do not use your bare hands). If you do not have disposable gloves, cover your hands with a plastic bag or use a paper towel to protect your hands from broken glass.*
- Carefully scoop up glass pieces and powder using stiff paper or cardboard and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
- Wipe the area clean with damp paper towels or disposable wet wipes. Place towels in the glass jar or plastic bag.
- Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.
- Immediately place all clean-up materials outdoors in a trash container or protected area for the next normal trash pickup. Check with your local or state government about disposal requirements in your specific area. Some states do not allow such trash disposal. Instead, they require that broken and unbroken mercury-containing bulbs be taken to a local recycling center.
- Wash your hands after disposing of the jars or plastic bags containing clean-up materials.
- *Ventilate the room to the outdoors for several hours after the clean up, if possible, to ensure mercury vapors have cleared. If available, continue to use a fan to blow air out the window.*
- *Keep children and pets away from the spot where the CFL broke for several days.*

Additional instructions for breakage on CARPET after initial cleanup following the steps above:

- *If rug is removable, take it outside, shake, and air out as long as practical.*
- *After cleanup and the room has been ventilated, the next several times you vacuum, shut off the central forced-air heating/air conditioning system and open a window before vacuuming.*
- Keep the central heating/air conditioning system shut off and the window open for at least 15 minutes after vacuuming is completed.
- The first time you vacuum the area where the bulb was broken, remove the vacuum bag (or empty and wipe the canister), and put the bag or vacuum debris in a sealed plastic bag.
- *If the carpet is in an area where young children or pregnant women may be exposed, it is advisable to cut out and replace the section of the carpet where the breakage occurred in order to remove any residual mercury.*

Additional instructions for CLOTHING AND BEDDING MATERIALS:

- If clothing or bedding materials come in direct contact with broken glass or mercury-containing powder from inside the bulb that may stick to the fabric, the clothing or bedding should be thrown away. Do not wash such clothing or bedding because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.
- You can, however, wash clothing or other materials that have been exposed to the mercury vapor from a broken CFL, such as the clothing you are wearing when you cleaned up the broken CFL, as long as that clothing has not come into direct contact with the materials from the broken bulb.
- If shoes come into direct contact with broken glass or mercury-containing powder from the bulb, wipe them off with damp paper towels or disposable wet wipes. Place the towels or wipes in a glass jar or plastic bag for disposal.

Source: US Environmental Protection Agency (non-italics), *Massachusetts Department of Environmental Protection, and Vermont Departments of Health and Environmental Conservation (italics).*