

Light Bulbs, Lamps and Fixtures

Switching to Compact Fluorescent Lamps (CFL) or Light-Emitting Diode (LED)

Switching from traditional light bulbs to Compact Fluorescent Lamps (CFL) or Light-Emitting Diode (LED) lamps is an effective, accessible change we all can make right now to reduce energy use at home and prevent greenhouse gas emissions that contribute to global warming.

Lighting is responsible for close to 20 percent of the average home's electric bill. ENERGY STAR qualified CFLs use up to 75% less energy than incandescent light bulbs; LED bulbs use even less. If every home in America replaced just one incandescent light bulb with an ENERGY STAR qualified CFL or LED, in one year 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.

Moreover, compared to incandescent lamps of the same perceived power, CFLs and LEDs use less energy and have a longer rated life--up to ten times longer than incandescent lamps. In the United States, a CFL can save more than \$30 in electricity costs over the lamp's lifetime compared to an incandescent lamp. CFLs and LEDs, though more costly to purchase, provide a quick return on your lighting investment by lasting longer and saving energy.

CFLs radiate a different light spectrum from that of incandescent lamps, but product improvements have created a subjective color of "soft white" light that seems similar to the color in standard incandescent lamps. Other product improvements include "quick on" features so you don't have to wait for them to warm up to their highest brightness, dimmable capabilities to create mood lighting, and globe covers to conceal the curly-cue appearance. LED lamps achieve full light almost instantly, and are available in a variety of intensities and light colors. Not all bulbs are dimmable, so if you need that feature, be sure to buy a bulb that is capable of being dimmed.

The Mercury Connection

A CFL contains a very small amount of mercury sealed within the glass tubing – an average of 5 milligrams, which is about the amount that would cover the tip of a ballpoint pen, or one percent of the mercury in an older thermometer.

Mercury is a necessary component of CFL, as mercury allows the bulb to be an efficient light source. No mercury is released when the bulbs are intact or in use, and manufacturers are continuing to find ways to reduce the average amount of mercury in these bulbs.

If a CFL breaks, it should be disposed of the same as any other fluorescent light.

Cleaning up a broken fluorescent or CFL bulb:

- First have any people or pets leave the room
- Open an exterior window or door for 5-10 minutes (to ventilate dangerous mercury vapor from the room)
- Check the Environmental Protection Agency website (<https://www.epa.gov/mercury/cleaning-broken-cfl>) for further recommendations about cleaning up a broken CFL.

CFL's do not belong in the trash.

PCBs

When changing lamp fixtures, be sure to check the typically black oblong box in the wiring compartment, or ballast, on fluorescent straight-tube fixtures. Ballasts on many older fixtures were manufactured with Polychlorinated Biphenyls (PCBs), which are considered carcinogenic and a persistent environmental hazard.

Non-PCB Ballasts will have a "No PCBs" note printed (sometimes very small) on the ballast label.

Any ballast without "No PCBs" must be recycled.

PCB's do not belong in the trash.

Disposal in Sherborn

If you are unsure whether your spent bulb contains hazardous waste, leave it with an attendant at the Sherborn Transfer Station for proper identification and handling.

- Fluorescent bulbs of all kinds, including CFL bulbs, should be placed in the designated box in the Universal Waste / Mercury Shed at the Sherborn Transfer Station.
- LED bulbs contain electronic materials and should be recycled in the Electronics Shed.
- Incandescent bulbs (older, metallic-filament light bulbs) should be disposed of with your regular trash.
- Most spent light-weight LED lamps can be disposed of with your regular trash.

- Heavier LED lamps contain enough metal so that they should be placed in the scrap metal container.
- Any ballast without a “No PCBs” note must be recycled in the Universal Waste Shed / Mercury Shed.

Scan the QR code to visit the [Sherborn Recycling Committee Website](#) for more information:

