



Make the Switch - How to Pick a Better Bulb

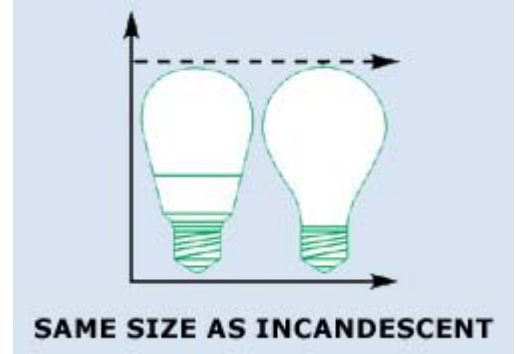
Benefits and Features of Compact Fluorescent Light Bulbs

Courtesy of Environmental Defense One Million-Bulb Swap-Out Campaign

Though we call them light bulbs, traditional incandescent bulbs are actually small heaters that give off a little bit of light—something you know if you've ever touched a bulb that's been on for a while. These bulbs were technological wonders when they were patented in 1880, but today they are inefficient dinosaurs. They waste energy and money, and they are responsible for millions of tons of global warming pollution.

The next generation of light bulbs

Fortunately, the next generation of bulbs is here: Compact fluorescent light bulbs (CFLs) now give off high-quality light using a fraction of the electricity. Using CFLs puts less strain on the electric grid and saves you money. If every household replaced just three 60-watt incandescent light bulbs with CFLs, we would reduce as much pollution as if we took 3.5 million cars off the roads!



If you were disappointed by CFL bulbs in the last couple years, it's time to try again. The design of the bulbs and quality of light have improved dramatically. Also, though CFL prices can be higher than traditional bulbs at the cash register, CFL savings add up quickly. They lower your electric bill and last up to 20 times as long as the old-fashioned bulbs. Here's how to make the switch:

1. Start with one bulb.

For your first compact fluorescent purchase, buy just one to make sure that it throws the kind of light you want. Light from yesterday's fluorescent lights, common in offices and schools, can seem "cold." Light from CFLs is different and better—CFLs can achieve the same kind of lighting you're used to from incandescent bulbs. Look for packages labeled "2700 degrees Kelvin" or "warm-white."

2. Know your watts and lumens.

We are used to choosing bulbs by how much electricity they use—a 40-watt incandescent bulb is on the dim side and uses less power, and a 100-watt bulb is bright and uses a lot of juice. CFL bulbs have much lower wattage numbers than their incandescent cousins, but don't let that fool you. CFLs provide much more light at a fraction of the wattage of traditional bulbs. Because of this, CFLs are often categorized by lumens. Lumens measure the amount of light a bulb gives off, and they are a more accurate way to tell how bright the new bulbs are.

Incandescent	CFL	Lumens	Cost Savings (\$.10/kWh)	Cost Savings (\$.20/kWh)	CO ₂ Savings
40W	11-14W	> 490	\$39-\$44	\$78-\$88	507-572 lbs.
60W	15-19W	> 900	\$62-\$68	\$124-\$136	806-884 lbs.
75W	20-25W	> 1,200	\$76-\$83	\$152-\$166	988-1,079 lbs.
100W	26-29W	> 1,750	\$107-\$112	\$214-\$224	1,391-1,456 lbs.
150W	38-42W	> 2,600	\$163-\$169	\$326-\$338	2,119-2,197 lbs.

Calculations for cost and CO₂ savings assume 15,000-hour life for CFL.

If you don't want to print this page out, remember this **rule of thumb**: **CFLs use about a quarter of the wattage to produce the same light.** So to replace a traditional 60-watt bulb, buy a 15-watt CFL: 60-watt incandescent / 4 = 15 watts.



Make the Switch - How to Pick a Better Bulb (Cont'd)...

3. Get the right shape and size.

Many stores will let you return a bulb if you find it doesn't fit properly, but keep an eye on two factors to save yourself an extra trip.

First, some CFLs have a larger bulb, which can be too big for some lamps. Depending on where you're going to install your CFLs, be sure to know how big the shade is (to know how big a bulb it can accommodate) and whether or not the bulb will show.

Many CFLs have a coiled bulb, but there are now versions available that have the same shape and size as an old-fashioned bulb. These newer CFLs aren't available in many stores yet, but you can order them on a number of web sites. One vendor is offering a special discount on these bulbs in support of this campaign. (<http://store.fgwlighting.com/ma13waprcofl.html>)

Second, most CFLs screw into standard light sockets; however, on some bulbs, the plastic piece above the screw part is slightly wider and might not fit in every lamp. Avoid the modular bases that terminate with pins.

4. Buy Energy Star to save the most energy.

The most energy-efficient CFLs carry the Energy Star label, the imprimatur of the government-backed energy efficiency program.

5. Be careful choosing CFLs for a dimmer.

There are exceptions to this rule, but the majority of CFLs are not made for dimmers yet. There are a few that already do work, but scrutinize the package to make sure. Look for bulbs labeled "cold-cathode" and be sure the package says "for use with dimmers."

Even the bulbs made for dimmers should only be used with sliding dimmer switches, not the round, rotating dimmer switches.

6. Check for indoor or outdoor use.

CFLs are designed for both indoor and outdoor use. Check the packaging to make sure you get the kind you need.

7. Dispose of your bulbs properly.

All compact fluorescents contain trace amounts of mercury. But **don't worry**. First of all, there is far less mercury in CFLs than in other items knocking about the house: CFLs (4 mg), thermometers (500 mg), older thermostats (3,000 mg). Plus, using CFLs actually *prevents* mercury from being released into the air thanks to their huge energy savings. A power plant, for instance, emits about 10 mg of mercury to produce the electricity to run an incandescent bulb compared to only 2.4 mg of mercury to run a CFL for the same amount of time.

Recycling burnt-out CFLs is the best option. To find out if there are recycling options near you, call **1-800-CLEAN-UP** for an automated hotline or visit <http://www.earth911.org>. (At the top of the earth911.org home page, enter your zip code and press "go." Click on the "Household Hazardous Waste" link, then the "fluorescent bulbs" link. This page will identify the nearest mercury recycling or disposal facilities near you. If the page contains no specific information on CFLs, go back and click on the link for "Mercury Containing Items.") Or contact your local government agency in charge of household hazard waste (start with your sanitation department) to see if recycling is an option in your area.

Should a bulb break, take these simple safety precautions for cleanup. First, open nearby windows to disperse any vapor that may escape. Carefully sweep up the fragments (do *not* use your hands) and wipe the area with a disposable paper towel to pick up all glass fragments. Do not *use* a vacuum. Place all fragments in a sealed plastic bag and follow disposal instructions above.