

## Are CFLs safe to use?

Yes! ENERGY STAR® qualified CFLs contain five milligrams of mercury or less – roughly the equivalent to an amount that would cover the tip of a ballpoint pen. They do not pose a health risk when properly used and handled. By comparison, mercury thermometers that you may have used to take your temperature contain 500 milligrams (100 times more) of mercury. No mercury is released when the bulbs are in use and can escape only if the CFL is broken.

## Why did my CFL burn out before it should have?

Manufacturers of ENERGY STAR® qualified CFLs are required to provide a two-year limited warranty to cover manufacturing defects. Installing a CFL in an enclosed fixture, operating it in a high-humidity area or switching it on and off frequently can shorten its life. To take full advantage of the energy savings and long life of CFLs, it is best to install them in frequently used light fixtures and ones that are lit for at least 15 minutes at a time. Good locations include the living room, family room, kitchen, bedroom, play rooms and outdoor light fixtures. It is still wise to turn the lights off when you leave a room for an extended period of time.

## What if a CFL breaks?

If a CFL breaks, it **IS** safe for you to clean it up yourself. There is no immediate health risk to you or your family when you follow the Environmental Protection Agency's recommended guidelines below:

- Open a window and leave the room for 15 minutes.
- Carefully scoop up fragments and powder with stiff paper or cardboard.
- Wipe area clean with a damp paper towel.
- Place all cleaning materials into a plastic bag and seal.
- In Nebraska, you may dispose of a broken CFL, placed in a sealed bag, in trash that goes to a sanitary landfill. Double bag for extra safety.
- Wash your hands.

## How do I dispose of CFLs after they burn out?

Though Nebraska regulations permit you to dispose of CFLs in trash that goes to sanitary landfills, contact a recycling location in your area to see if there are opportunities to recycle CFLs in your community.



## COMPACT FLUORESCENT LIGHTING

## QUESTIONS & ANSWERS



# bpw

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Use less. Spend less. Do more.

You see them in the aisles at your local hardware store and even the grocery store. And, you hear a lot about how compact fluorescent lamps (CFLs) can be used as a way of helping to reduce energy consumption and the generation of greenhouse gasses that contribute to global warming.

Consumers have raised a number of questions and concerns regarding the operation, use, and safety of CFLs.

Here are some answers to questions you might have concerning your household's changeover from incandescent bulbs to compact fluorescent lamps.



## What is a CFL?

A compact fluorescent lamp, or CFL, is an energy efficient light bulb that can replace many, but not all, standard incandescent light bulbs currently being used. CFLs last up to 10 times longer and use about 75 percent less energy to produce a comparable amount of light as a standard light bulb.

## How do CFLs and incandescent light bulbs operate differently?

CFLs produce light through a reaction when electricity is applied to gases enclosed in a glass vacuum tube whose inside walls are lined with phosphors. Through this process, 70 percent of the energy produced is converted into light with the remaining energy converting into heat. Incandescent light bulbs produce light by heating a tungsten filament until it glows. Ninety percent of the electricity used in an incandescent light bulb converts immediately to heat with only 10 percent producing light.

## Are all CFL bulbs the same quality?

No. Look for ones with an ENERGY STAR® on the label, which indicates they have met strict specifications for energy savings, long life, color, and brightness.

## What shapes and sizes do they come in?

You can replace nearly every conventional light bulb in your home with a CFL. While early CFLs were usually spiral-shaped, now you can choose CFLs in conventional bulb shapes, globes, and outdoor flood lights. Some CFLs are designed to work with dimmers and three-way switches; some can even replace halogen bulbs, including those on track lighting.



## What wattage do I need to replace an incandescent bulb?

CFLs use considerably less wattage to produce the same amount of light as an incandescent bulb. For example, a 15-watt CFL produces the same light intensity as a 60-watt incandescent. When you're shopping for CFLs, check the wattage equivalency numbers on the package *or use the chart below as a reference.*

### LIGHT OUTPUT EQUIVALENCY

Consult this chart to determine which ENERGY STAR qualified light bulbs provide the same amount of light as your current incandescent bulbs:

INCANDESCENT LIGHT	BULBS MINIMUM LIGHT	OUTPUT COMMON ENERGY STAR QUALIFIED LAMPS
WATTS	LUMENS	WATTS
40	450	9-13
60	800	13-15
75	1,100	18-25
100	1,600	23-30
150	2,600	30-52

## Why does the color of CFLs seem different?

Some CFLs produce an inviting, warm or soft light, the kind you use to light your home. Others produce light listed as cool white or daylight, which is suitable for task lighting. Lighting manufacturers rate the color of their lamps by stating how many degrees in Kelvin temperature it is. This rating has nothing to do with the heat the lamp produces. The lower the Kelvin (K) temperature, the "warmer" or "softer" the light appears. A majority of CFLs are rated around 2900K, which is the same as traditional incandescent bulbs. Rather than printing the K temperature on the package, most manufacturers of CFLs use the words, warm, soft, or cool.

## How do I save money?

A CFL will often pay for itself in less than eight months. You could realize annual energy savings of about \$5 (at 8.5¢ per kilowatt hour) for the life of the lamp.