Home Safety

What is a Ground Fault Circuit Interruptor (GFCI) and How it Can Protect Your Family

As a parent, you've probably never heard of a ground fault circuit interrupter (GFCI), but these little devices are a major advance in preventing electrical shock in and around the home. Look at the picture to the right – you probably have a few of these already installed in the outlets around your house. GFCIs are designed to prevent electrical shock by breaking the circuit when there is a difference in the currents in the hot and neutral wires. The advantage of a GFCI is that it can detect small amounts of electricity (that your fuse or circuit breaker can't) and effectively turn off the circuit to avoid potential dangers.

By installing GFCIs in every home in the United States, the U.S. Consumer Product Safety Commission estimates that more than two-thirds of the approximately 300 electrocutions occurring each year could be prevented.

If you don't have any GFCIs in your home, consult your contractor or electrician to have them installed. If you do have them, it's important you know how to test and maintain these safety devices – a commonly overlooked step in home-safety that can have dire consequences.

How do I test GFCIs?

UL recommends testing GFCIs once a month to verify they are working properly. Like all products, GFCIs can be damaged by lighting or electrical surges and may fail to provide adequate protection. A simple test after any violent thunderstorms is therefore also recommended.

To properly test GFCI receptacles in your home:

- First, push the "Reset" button located on the GFCI receptacle to assure normal GFCI operation.
- Plug a nightlight (with an "ON/OFF" switch) or other product (such as a lamp) into the GFCI receptacle and turn the product "ON."
- Push the "Test" button located on the GFCI receptacle. The nightlight or other product should go "OFF."
- Push the "Reset" button, again. The light or other product should go "ON" again.

If the light or other product remains "ON" when the "Test" button is pushed, the GFCI is not working properly or has been incorrectly installed (miswired). If your GFCI is not working properly, call a qualified, certified electrician who can assess the situation, rewire the GFCI if necessary or replace the device.

"GFCIs are proven lifesavers; however, consumers need to take a few minutes each month to do this simple test. By taking action, you can help protect your family from the risk of electric shock," says John Drengenberg, UL consumer affairs manager.

Several types of GFCIs may be installed in/around your home. Look for the UL Mark on GFCIs when purchasing them or when specifying the product to your electrician.