Electrical Lifesaver: GFCIs

If an inexpensive electrical device were installed in every U.S. household, nearly 70 percent of the approximately 330 electrocution that occur each year in the home could be prevented according to the Electrical Safety Foundation International (ESFI). This life-saving device is a ground fault circuit interrupter, known as a GFCI.

Gound fault circuit interrupters (GFCIs) are electrical safety devices that trip electrical circuits when they detect leakage currents. A GFCI can be an electrical receptacle, circuit breaker, or portable device. They are especially useful for cord-connected appliances and equipment are used outdoors or near water.

- GFCIs are products designed to prevent serious injury or death from electrical shock by detecting ground faults at very low levels.
- A GFCI should be used in any area where water may come in contact with electrical products. GFCIs are now required by code in certain areas of the home, including unfinished basements, kitchens, bathrooms, bedrooms, garages, crawl spaces and around swimming pools.
- If a GFCI senses minimal current leakage to ground in an electrical circuit, it assumes a ground fault has occurred. It them interrupts power fast enough to prevent serious injury from electrical shock.
- Three types of GFCIs are designed for home use-wall receptacle, circuit breaker and portable plug-in. All three are readily available, inexpensive and fairly simple to install.
- Power surges and electrical storms may damage GFCIs, preventing them from working properly. Regularly testing GFCIs is a good safety practice.

Statistics indicate that the number of deaths and injuries due to electrical hazards may be on the decline. Part of the reason for that may be related to the use of ground fault circuit interrupters (GFCIs) and arc fault circuit interrupters (AFCIs). GFCIs can protect against electrical shock, while AFCIs detect hazards often responsible for electrical fires.

To help reduce the number of electrical hazards, increase electrical safety awareness and make sure to use quality electrical safety products, such as GFCIs and AFCIs, to help protect against electrical shocks and fires.

One of the most important electrical safety devices you can use is a **Ground Fault Circuit Interrupter (GFCI).** Estimates indicate that the installation of GFCIs have saved hundreds of lives and prevented thousands of injuries in the U.S. over the past 30 years.

Testing your GFCI is simple. Plug a nightlight into a GFCI-protected outlet and turn it on. Press the “TEST” button; the light should turn off. Press the “RESET” button; the light should turn on. If the light does not go out with the “TEST” button is pressed, discontinue use of this circuit and contact a qualified electrician to correct the problem.

Leakage current occur when an electrical appliance is damaged or the electrical parts are wet and electrical current flows outside of the circuit conductors. If a person becomes part of the path for the leakage current, he or she will be shocked or electrocuted. GFCIs look for very small leakage current and act quickly to shut off the circuit after detecting them. By interrupting the flow of electricity, GFCIs may prevent serious injury or death.

GFCIs are designed to provide protection against electrical shock from ground faults, or leakage currents, which occur when the electrical current flows outside of the circuit conductors.

For more information about electrical safety, go to **www.electrical-safety.org**