



Electrical Safety in your life

Be aware. Be safe. Stay alive

Electrocution and you:

Ground Fault Circuit Interrupters (GFCIs)

Approximately 300 electrocutions occur every year!

Electrical Current Level

Below 1 milliampere

1 milliampere

5 milliamperes

6–25 milliamperes (women)

9–30 milliamperes (men)

50–150 milliamperes

1,000–4,300 milliamperes

10,000 milliamperes

15,000 milliamperes

Effect

Generally not perceptible.

Faint tingle.

Slight shock felt; not painful but disturbing. Average individual can let go. Strong involuntary reactions can lead to other injuries.

Painful shock, loss of muscular control. The freezing current or "let-go" range. Individual cannot let go, but can be thrown away from the circuit if extensor muscles are stimulated.*

Extreme pain, respiratory arrest (breathing stops), severe muscular contractions. Death is possible.

Rhythmic pumping action of the heart ceases. Muscular contraction and nerve damage occur; death likely.

Cardiac arrest and severe burns occur. Death is probable.

Lowest current at which a typical fuse or circuit breaker opens a circuit!

Ground fault circuit interrupters (GFCI) can help prevent electrocution inside and outside the home. GFCIs are an effective means of protecting against electrical shock, however, they must be tested regularly -- UL recommends once a month -- to verify they are working properly.

"Ground faults" are often the result of damaged appliance cords or consumers who use electrical products in wet environments, such as bathrooms or swimming pool decks. By installing GFCIs in every home in the United States, the U.S. Product Safety Commission (CPSC) estimates that more than two-thirds of the approximately 300 electrocutions occurring each year could be prevented. The advantage of using GFCIs is that they detect even those amounts of electricity too small for your fuse or circuit breaker to activate and shut off the circuit.

Like all products, GFCIs can be damaged. GFCIs damaged by lightning or electrical surges may fail to provide adequate protection. A simple test should be conducted once a month and after any violent thunderstorm. To properly test GFCI receptacles in your home:

- Push the "Reset" button located on the GFCI receptacle, first 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. If your GFCI is not working properly, call a qualified 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, consumer affairs manager at UL." - Testing procedure courtesy of Underwriters Laboratories