

Electrical Fire Safety

Shocking Statistics

Each year, electrical shocks and fires cause hundreds of deaths and thousands of injuries. Following a few basic electrical-safety rules can reduce your risk.

Fuses and Circuit Breakers

- If a fuse blows or a circuit-breaker trips, don't just replace it or reset it. Find out why it blew and correct the problem
- Each fuse in your home has an amperage rating that limits how much current an electrical circuit can carry. When you replace a fuse, make sure its rating matches the circuit.
- Irons and other heat-producing appliances draw a lot of electrical current. Do not plug more than one of these into the same outlet or circuit

GFCI

GFCIs (ground fault circuit interrupters) can greatly reduce the risk of shock by shutting off faulty electrical circuits and equipment faster than conventional fuses or circuit breakers can. GFCIs are inexpensive and can be hard-wired into your home electrical system, built into or plugged into electrical outlets, or built into extension cords. Test them monthly by pushing the test button. (The National Electrical Code requires GFCIs for kitchen, bathroom, outdoor, basement, and garage receptacles in new construction.)

Electrical Outlets

- Modern electrical outlets accept the three-pronged plugs - polarized, with one prong wider than the other. When old, ungrounded receptacles are replaced, have a qualified electrician upgrade the wiring system to accept grounded receptacles. The new outlets are grounded to prevent shocks.
- Make sure your plugs match your outlets by upgrading the outlets, not by altering the plugs. Never clip off the round grounding prong or file down the wide polarized prong.
- If you have little kids in your home, install plastic safety covers in unused outlets.

Appliances

- Purchase appliances that have labels that tell you they have been tested by an independent testing lab.
- Keep heat-producing appliances -- irons, space heaters, etc. -- at least 3 feet (1 meter) away from curtains, furniture, or anything else that can burn.
- Unplug small appliances -- toasters, coffeemakers, etc. -- when they are not in use.
- Allow adequate air space around electronic components -- computers, stereo systems, etc. -- to prevent overheating.
- Use detachable appliance -- for deep-fat fryers, popcorn makers, some coffeepots, etc. -- that are rated for the appliances' load requirements (amperage). Never leave these cords plugged into an electrical outlet when they are not attached to the appliance.

Cords

- Use cords within their marked rating -- don't overload.
- Replace cracked or frayed electrical cords.
- Keep cords out of traffic areas and away from where children play.
- Don't pinch cords against walls or furniture or run them under carpets or across doorways.

- Use cords that are listed by an independent testing laboratory.

Lamps

- Place lamps on level surfaces, away from things that can burn.
- Use bulbs that match the lamp's recommended wattage.
- Use shades that will protect the bulb from breaking if the lamp is knocked over.

Outdoor Power

- Outdoor electrical fixtures -- such as porch lights -- should be weatherproof; use GFCI-protected electrical receptacle outlets with weatherproof covers.
- Power holiday lighting displays from permanent circuits installed by an electrician -- never from extension cords. Use lights labeled for outdoor use that have been tested by an independent lab.
- Do not use electrical appliances outdoors when the ground or grass is wet unless the tool has been designed (and rated by an independent testing lab) for that kind of use. Power all outdoor appliances from GFCI-protected outlets.
- Never run extension cords across driveways, and use only extension cords rated for outdoor use.

Power Lines

- Never touch a power line -- you could be badly shocked and burned.
- Keep ladders (especially metal ones) far away from power lines, including the electrical service into your home.
- Report downed power lines and mark the area to warn people to stay away.

Warning Signs

Spot electrical problems before they start a fire or cause a shock. Watch for the following:

- Recurring problems such as blowing fuses or tripping circuit breakers.
- Feeling a tingle when you touch an electrical appliance.
- Discolored wall outlets.
- A burning smell or rubbery odor coming from an appliance.
- Flickering lights. (If you don't pinpoint a problem inside your home, have the power company inspect the service to your home and your electric meter.)

Do not wait for problems. If it is safe, unplug malfunctioning appliances. If necessary, cut off power by unscrewing a fuse or turning off a circuit breaker. Then call a professional electrician.

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