

THE FACTS

On Electrical Safety

Electric is undoubtedly one of the most basic needs in modern life, but it poses very dangerous hazards. Hazards include electrical shock, electrical burn, and electrocution.

HAZARDS

- **Electric Shock**
 - A sudden discharge of electricity through a part of the body. A shock often feels like a buzz or a tremor.
- **Electric Burn**
 - Tissue damage resulting from flow of an electrical current with high temperatures. Entry and exit points occur, but most burned tissue remains invisible at surface levels.
- **Electrocution**
 - When electric current passes through the body. Typically resulting in serious injury or death.

Clues an Electrical Hazard Exists

- A ground fault circuit interrupter keeps tripping.
- Circuit breakers trip and fuses blow.
- An electrical tool, wire, extension cord, fuse box, cable, or junction box feels overly warm.
- A burning odor, which may indicate overheated insulation.
- Worn, frayed or damaged insulation around wires or conductors is an electrical hazard because the conductors could be exposed. Contact with an exposed wire could cause a shock, and damaged insulation could cause a short, leading to arcing or a fire.



OCCUPATIONAL AND ENVIRONMENTAL SAFETY

SAFETY TIPS

1. Do not remove ground prongs.
2. Frequently inspect electrical cords to ensure they are not cracked, frayed, or missing ground prongs.
3. Do not modify cords or use them incorrectly.
4. Use cords that are approved by a nationally tested laboratory, such as Underwriter's Laboratories (UL).
5. Remove cords from receptacles by pulling on the plug, not the cord.
6. Remove all damaged electrical cords from service immediately.
7. Avoid overloading outlets or extension cords.
8. Never plug one extension cord into another.
9. Check for outlets that have loose-fitting plugs. These can overheat and lead to fire.
10. Do not block electrical panels.
11. Do not run extension cords through doorways, holes in ceilings, walls, floors, or high traffic areas.
12. Use double insulated tools.
13. Ground all power supply systems, electrical circuits, and electrical equipment.

GFCI

Ground Fault Circuit Interrupter is a type of circuit breaker which shuts off electric power when it senses an imbalance between the outgoing and incoming current. The main purpose is to protect people from electrical shock caused by a short circuit, insulation failure, or equipment malfunction.

Occupational and Environmental Safety (OES) is a team of dedicated professionals who provide safety and compliance services to support Clemson University's core mission of research, teaching and public service. We accomplish this through collaboration and partnerships with the Clemson community and are committed to continuous improvement and exceptional customer service