

## Electrical Safety In The Lab





“Electricity is invisible. It cannot be seen, heard, tasted, or smelled. Like a snake hiding in the grass, electricity will strike if you don’t follow safe work practices as well as using and maintaining safe equipment.”

Ed Mendenhall  
Safety & Health  
Jan 2001



Because of the inherent hazards of working with electricity, the following procedures are provided to help identify safe work practices.



- Electrical service cords should be in good condition.
- Remove from service any equipment with frayed cords or exposed wires.
- All electrical equipment must be grounded, use 3-pronged plugs.





- Use a single plug for each electrical connection.
- Multiple plugs for additional connections should be avoided.
- Do not overload circuits.

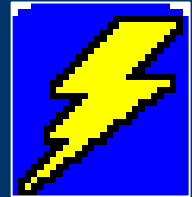


- Electrical equipment such as mixers or hot plates, should not be used near flammable solvents unless they are explosion proof.
- Never bypass any safety device on a piece of electrical equipment.
- All electrical repairs should be made by qualified personnel.





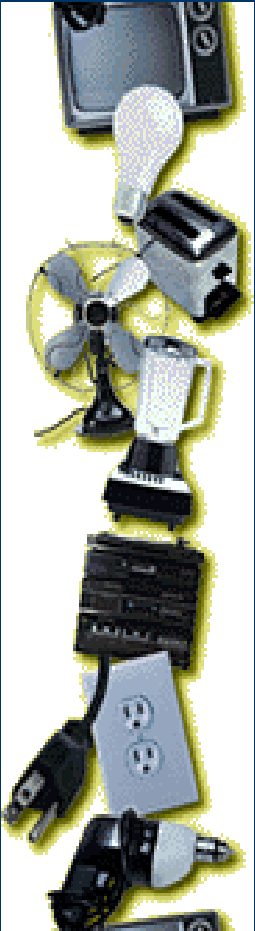
- Water can turn anything into an electrical conductor - don't stand in water or have water on your hands when using electrical equipment.
- In case of an electrical fire, don't touch the burning object or douse it with water. Turn off power if possible. If it's small, extinguish it with a fire extinguisher.
- Never use temporary wiring.



## 5 Electrical Myths You Need to Know



1. Electricity takes the path of least resistance.
2. Electricity wants to go to ground.
3. If an electrical appliance or tool falls into water, it will short out.
4. It takes high voltage to kill.
5. Double-insulated power tools can be used in wet and damp locations.







Contact the Division of Safety and Compliance  
for more information.

<http://safetyandcompliance.fs.illinois.edu>