

KSU Facilities Safety Bulletin

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Electrical Safety

Electrical accidents can cause burns, shocks and electrocution, and without the proper electrical safety can lead to fatal accidents in a worst case scenario.

Approximately 230 electrical related fatalities occur each year. In one study, National Institute for Occupation Safety & Health (NIOSH) found that, “61% of electrocutions occur in two occupation divisions: 46% among craftsmen and 15% among laborers. These two groups also had the highest rates of electrocution death: 1.4 per 100,000 workers each.”

Electrical safety tips for avoiding electrical accidents:

- Before plugging in a device, examine both the device and its cord for damage. Look for corroded, loose, or bent plugs.
- Examine the cord for cracks or frayed insulation at the plug end.
- Look at the tool or appliance end, too. If a tool or cord becomes hot to the touch or sparks or shocks, repair or replace it, but don't attempt to repair broken cords or components by yourself. That is a job for a qualified electrician.
- Never hold a tool or appliance by the cord—that invites damage—and remember to keep cords away from heat and water.
- When removing plugs from outlets, pull on the plug, not the cord.
- Don't tamper with plugs. Any cord with a prong missing should be put out of service.
- Don't overload circuits. Use a Ground Fault Circuit Interrupter (GFCI).
- Remember that extension cords are for temporary use only. Using them as a permanent wiring solution is a fire code violation.

August Vivid Course

All:

Electrical Safety

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- When working outside don't forget to identify electrical sources over your head and below your feet.
- “Low voltage won't hurt me.” Really? This is a common myth. Currents over 10 milliamps or 2.5 volts can paralyze muscles, impacting the ability to release grips on tools, wires, or objects you have in hand. And if you can't let go, the current continues through your body; sustained contact can increase muscle constriction, including muscles that control your breathing.
- Have you ever seen smoky looking marks on an outlet? Pay attention to those. It's possible the outlet was wired incorrectly (hot and neutral connections wired backwards) and presents a shock hazard. You can purchase an electrical tester to affirm correct polarity and, if you diagnose a problem, have a licensed professional correct it.
- Stand aside. Look away. Trip. Picture a breaker panel; one at work or the one in your house. Let's say you need to trip (turn on or off a breaker). Figure out which one you need to trip, stand to the side of the panel, turn your face away from the panel, and then trip the breaker. If for any reason the breaker fails while you are doing this and blows up (“arc flash”), at least you will be out of the blast zone.
- Daisy chain is not a necklace. Have you ever seen one power strip pulled into another power strip, pulled into another? Is it under your desk or in your house right now? That unsafe practice is not only unfashionable, it's a fire hazard and is building heat.

Source: [hsi.com](https://www.hsi.com)