



# Electrical Safety: Wiring

Electrical hazards are a leading cause of fatal injuries among construction workers. The main types of electrical injuries are electric shock, burns, falls caused by coming in contact with electrical energy, and electrocution.

## Ryan's Story

Ryan and his supervisor were finishing the electrical wiring of an outdoor floodlight. Ryan began removing the insulation from a normal house-wiring unit, using an insulated wire stripper. His right thumb and right index finger contacted the non-insulated part of the wire stripper. The 110-volt circuit had not been shut off at the panel box. Ryan received an electrical shock and fell to the ground. The ambulance soon arrived, but he was dead upon arrival at the hospital.

- ✘ What caused this incident?
- ✘ How could this have been prevented?
- ✘ Have you ever had an electrical shock, or do you know someone who has? If so, what happened?

## Remember This

- **De-energize** electrical circuits before doing any type of work on them.
- Use lockout devices to prevent a circuit from becoming live.
- Put a tag on the locked device, indicating that it should not be turned on.
- Clearly identify the disconnected power source and circuits.
- Use an AC voltage tester to verify that the electrical power is off.
- Use insulated tools and gloves when working on electrical wires.

## How can we stay safe today?

What will we do at the worksite to prevent injury or electrocution from electrical wiring?

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OSHA Standards: 1926.416 and 1026.417





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## GET INFORMATION

CDC/NIOSH INFO: 1-800-CDC-INFO (1-800-232-4636) | TTY: 1-800-232-6348 | [cdc.gov/info](https://cdc.gov/info) | [cdc.gov/niosh](https://cdc.gov/niosh)  
CPWR: Contact 301-578-8500 | [cpwr-r2p@cpwr.com](mailto:cpwr-r2p@cpwr.com) | [www.cpwr.com/toolbox-talks](https://www.cpwr.com/toolbox-talks)  
DHHS (NIOSH) Publication No. 2022-142 | DOI: <https://doi.org/10.26616/NIOSH PUB2022142> | August 2022