



Electrical Safety: Extension Cords

On construction sites, flexible extension cords for powering tools and equipment are everywhere. These cords are often loose and uncovered. They can cause tripping hazards. They also can be damaged easily and can create electrical hazards. An electric shock can result in an electrical burn or even heart failure and death. A shock that is strong enough to throw you away from the electrical source can result in other types of physical injuries.

Bernard's Story

Bernard was using a coring machine to make holes in a concrete floor. The 120-volt machine was powered by two extension cords connected together. One cord was missing its grounding prong. The cords were plugged into a permanent electrical outlet. Bernard placed the coring machine where he wanted to make the hole. When he turned on the power, Bernard received a shock and suffered an electrical burn to his hand.

- ✘ What caused this incident?
- ✘ How could this have been prevented?
- ✘ Have you ever been injured due to an extension cord, or do you know someone who has? If so, what happened?

Remember This

- Inspect **all** extension cords before using for damage and missing grounding prongs.
- Use a Ground Fault Circuit Interrupter to protect against any electrical fault.
- Keep extension cords away from foot traffic to prevent tripping hazards and damage to the cords. The insulation in cords and electrical tools can become damaged. If a live wire touches exposed metal parts inside a tool, it can become energized.
- **Do not** use extension cords/flexible wiring
 - Where frequent inspection would be difficult.
 - Where damage would be likely.
 - Where long-term electrical supply is necessary. An extension cord is not a substitute for fixed wiring.
- **Do not** use a metal outlet box, Romex, or nonmetallic cable as an extension cord.
- **Do not** use staples or nails to hold cords in place.
- **Do not** use multiple cords connected together (use one long cord instead).

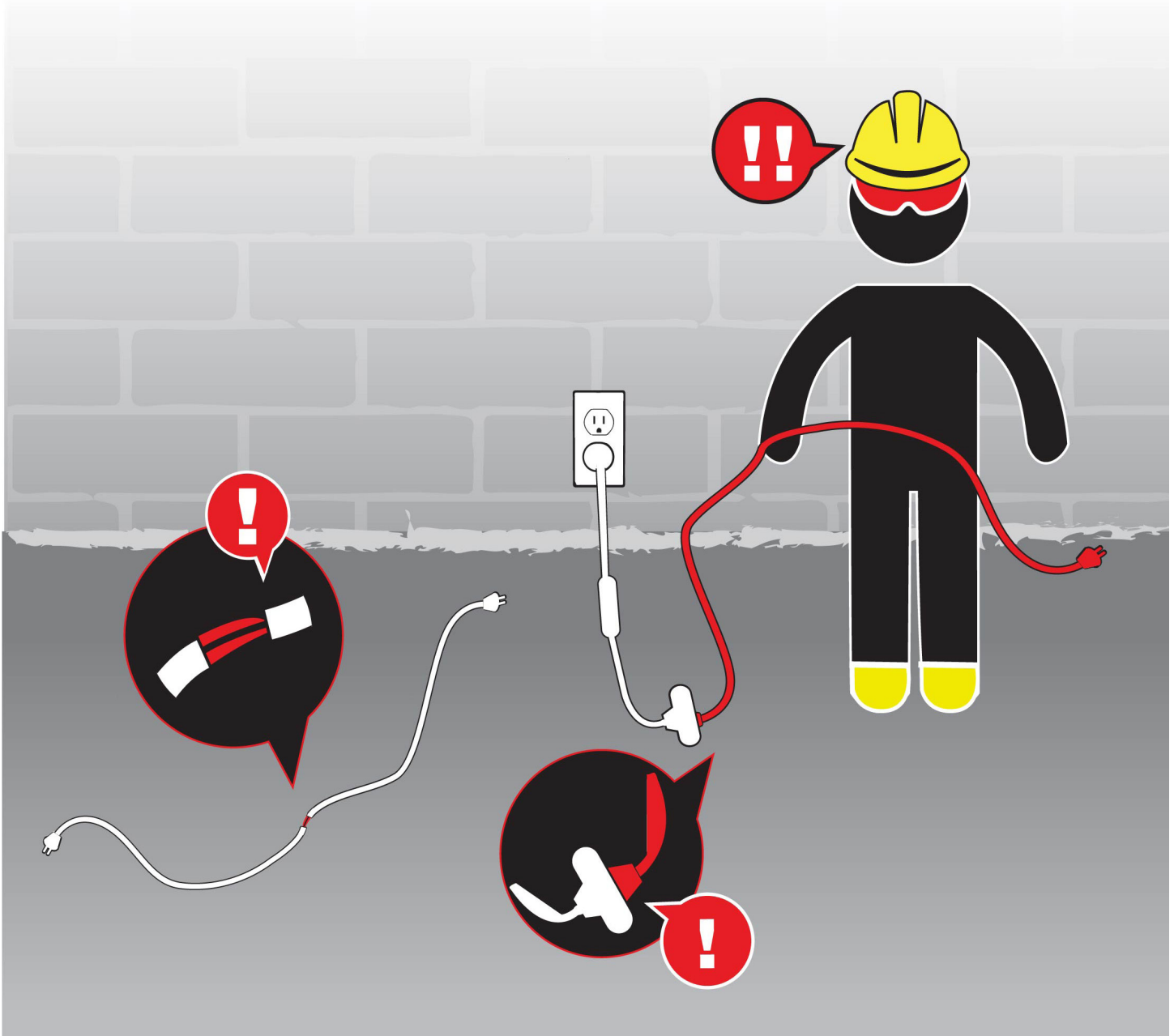
How can we stay safe today?

What will we do at the worksite to prevent injuries or deaths due to extension cords?

OSHA Standards: 1926.404 and 1926.405



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- ✓ Keep extension cords away from foot traffic to prevent tripping hazards and damage to the cords.

GET INFORMATION

CDC/NIOSH INFO: 1-800-CDC-INFO (1-800-232-4636) | TTY: 1-800-232-6348 | [cdc.gov/info](https://www.cdc.gov/info) | [cdc.gov/niosh](https://www.cdc.gov/niosh)
CPWR: Contact 301-578-8500 | cpwr-r2p@cpwr.com | www.cpwr.com/toolbox-talks
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