

Extension Cord Safety

In this toolbox talk, learn how to properly use extension cords on the construction site and prevent accidents.

Extension Cord

On the construction site, there are many different hazards that pose a threat to your safety and the safety of those around you.

With so much to worry about, it can be easy to overlook the seemingly “smaller” risks, like extension cords. But if not handled properly, extension cords can cause serious injury.

Extension cord injury statistics

Before we get into the proper precautions of working with extension cords, it's important that you understand what it is that makes them potentially dangerous.

Here are some relevant injury statistics pertaining to extension cords:

- About 4,000 injuries resulting from extension cords are treated in hospital emergency rooms each year. Not all are [electrical injuries](#). Half of these injuries involve fractures, lacerations, contusions, or sprains [from people tripping](#) over extension cords.
- Roughly 3,300 home fires originate from extension cords each year, killing 50 people and injuring about 270 more.

What's sad about these injuries is that they can almost always have been prevented with care and caution. Unfortunately, most people are simply unaware of the safety risks of extension cords.

What to avoid when working with extension cords

To prevent accidents and injuries, the most important thing to remember when dealing with extension cords is what you shouldn't do.

Here is what to avoid when working with extension cords:

- Don't plug one extension cord into another unless it's allowed by the manufacturer.
- Never let an extension cord sit in water or snow.
- Never run extension cords through walls or holes in a ceiling.
- Don't remove the ground prongs of an extension cord and do not use a cord if it is missing a ground prong.
- Don't use indoor cords outdoors.
- Never cover extension cords with rugs or carpet.
- Don't place cords in a walkway where they can be tripped over.
- Don't use extension cords in place of permanent wiring.

When it comes to extension cords, use your common sense. If an action feels like it may be dangerous or cause an [electrical hazard](#), choose a different method for setting up and utilizing your extension cord.

If you are unsure as to whether or not you should use an extension cord in the way you are planning, refer to the manufacturer. This will ensure that you're not placing yourself and your coworkers at risk.

How to use extension cords safely

Now that we have established what to avoid when using extension cords, let's go over what you should be doing.

Here are some of the best practices to employ to keep safety in mind when using an extension cord on the worksite:

- Inspect cords prior to use. Look for broken prongs as well as damage to the protective cover that encapsulates the wires inside the cord.
- Only use extension cords that have gone through independent testing such as by the Underwriters Laboratory. These cords will have a "UL" marked on them.
- Place cords out of the way and out of conditions that could result in electrocution or damage to the cord.
- When the cord is not being used, unplug it and store it neatly out of the way of foot traffic.

By following these simple guidelines, you can help prevent injuries from improper extension cord use.

Again, many people ignore the dangers of working with an extension cord—don't take that risk. Be sure to take the necessary safety measures.

Electrical cord designations

Extension cords often come with designations, especially when intended for use in the workplace. These designations are the manufacturer's way of telling you how you are supposed to utilize the electrical cord.

Designations let you know what use cases are safe for that specific make and model of extension cord.

Here are some of the designations and what they mean:

- S: Designed for general use
- W: Rated for outdoor use
- J: Standard 300 Voltage Insulation
- T: made from Vinyl Thermoplastic
- P: Parallel Wire Construction (Air Conditioner Cords and Household Extension Cords)
- O: Oil-resistant
- E: Made from TPE

Many times, there will be several different designations for each extension cord model. For example, if the cord is designated SJTW, that implies that the extension cord is designed for general use, rated for outdoor use, standard 300 voltage insulation, and made from vinyl thermoplastic.

Extension and electrical cord safety tips

Here are some additional safety tips for working with extension cords or electrical cords:

- Use extension cords only when necessary and only on a temporary basis. Do not use extension cords in place of permanent wiring.
- Do not remove the prongs of an electrical plug. If plug prongs are missing, loose, or bent, replace the entire plug.
- Do not use an adapter or extension cord to defeat a standard grounding device. For example, only place three-prong plugs in three-prong outlets, do not alter them to fit in a two-prong outlet.
- Use extension cords that are the correct size or rating for the equipment in use. The diameter of the extension cord should be the same or greater than the cord of the equipment in use.
- Only use cords rated for outdoor use when using a cord outside.
- Do not run cords above ceiling tiles or through walls.

- Keep electrical cords away from areas where they may be pinched and areas where they may pose a tripping or fire hazard (e.g., doorways, walkways, under the carpet, etc.).
- Always inspect the cord prior to use to ensure the insulation isn't cut or damaged. Discard damaged cords, cords that become hot, or cords with exposed wiring.
- Never unplug an extension cord by pulling on the cord; pull on the plug.
- In locations where equipment be pushed against an extension cord where the cord joins the plug, use a special "angle extension cord" specifically designed for use in these instances.

Conclusion

The best way to avoid accidents involving extension cords is by acknowledging that extension cords come with safety hazards, especially when they are not used with the proper safety precautions.

Most accidents happen because people are simply unaware of how dangerous extension cords can be. By acknowledging and understanding the risk, you can protect yourself and your coworkers from accidents.