



# PLAYING IT SAFE

## Ergonomic Solutions for Electrical Contractors

*Helpful tips for reducing your risk of injury at work*

Injuries stemming from poor ergonomics are common among electrical contractors. Fortunately, you can avoid them by following the proper work practices.

### Prefabrication

#### Bending Conduit

- Use mechanical conduit benders whenever possible.
- Prefabricate as much conduit as possible to minimize manual on-site bending.
- Use long-handled manual conduit benders when mechanical ones are not an option.
- Wear gloves to protect your hands while manually bending conduit.

#### Welding

- Pre-plan welding jobs to minimize awkward postures.
- Work on tables and jigs that can be adjusted to allow you to keep a neutral position while working.
- Use anti-fatigue mats to help reduce discomfort from prolonged periods spent on your feet.

### Installation and Repair

#### Pulling and Feeding Wire

- Use a mechanical wire puller whenever possible.
- Use portable pulleys to exert larger forces while maintaining proper posture.
- Reduce the length of pulls whenever possible.
- Take regular breaks from manual pulling.
- Rotate pulling and feeding responsibilities with a co-worker if

one is available.

- Use spool rollers that allow spools to rotate in place, releasing wire smoothly and with less effort.

#### Digging and Trenching

- Use a mechanical means of digging, such as a trencher or backhoe whenever possible.
- Use long handled tools to minimize torso bending.
- Take frequent breaks while manually digging.

#### Hand Tools

- Use tools that do not require an extended grip. The hand should be in the shape of a "C" while gripping the tool.
- Use powered or ratcheting tools whenever possible for repetitive tasks.
- Use spring-loaded pliers, snips and crimpers

#### Power Tools

- Use torque bars on tools such as drills and pipe threaders for easier control.
- Use power tools that allow for neutral wrist position, such as a pistol grip for vertical surfaces and an in-line grip for horizontal surfaces.

#### Tool Belts

- Use padded tool belts with suspenders to evenly distribute the weight between the shoulders and waist.

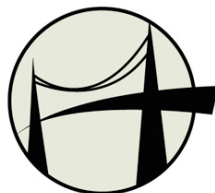


### Plan Ahead

Most situations that contribute to ergonomic-related injuries can be avoided if the proper planning is taken in advance. Having the right equipment on hand can eliminate the appeal of shortcuts that could result in injury.

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