



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.