



## Office Electrical Safety



Appliances used in an office can cause serious shocks and burns, if they are improperly used or if the equipment is poorly maintained.

Electricity travels through electrical conductors, which can include parts of the human body. Metals and moist skin offer very little resistance to the flow of electrical current and can easily conduct electricity. If a part of the body completes the electrical circuit, a shock will occur. The electrical current will enter the body at one point and leave at another. The passage of electricity through the body can cause pain, burns, destruction of tissue, and even death. Electrical accidents usually occur as a result of faulty or defective equipment, unsafe installation, or misuse of equipment on the part of office workers. Here are some details:

**Overloaded Outlets** - Avoid overloading electrical outlets. If necessary, have additional circuits installed. Overloading electrical circuits and extension cords can result in a fire. Floor-mounted outlets should be carefully placed to prevent tripping hazards.

**Unsafe/non-approved equipment** - Office electrical equipment must be approved by an independent testing organization, such as Underwriters Laboratory (UL). The use of low-quality, non-approved appliances, such as inexpensive coffee makers, radios, lamps, and space heaters is unsafe. Such appliances are more likely to develop electrical shorts and create fire and shock hazards, and should be removed from the workplace.

**Defective, frayed or improperly installed cords** - A damaged cord may no longer be water-resistant and the insulation can absorb moisture, which may then result in a short circuit or excessive current leakage to ground. If wires are exposed, they may cause shock to a worker who contacts them. These cords should be replaced. Flexible electrical cords should be examined on a routine basis for fraying and exposed wiring.

**Appliance cords** - A cord should not be pulled or dragged over nails, hooks, or other sharp objects that may cause cuts in the insulation. In addition, cords should never be placed on radiators or steam pipes, run through walls or windows, or placed under carpets, rugs or furniture. Particular attention should be given to outlets behind furniture. Files, desks, and bookcases may be pushed tightly against electric outlets and severely bend the cord at the plug. This can damage the insulation and break strands of the wire.



**Extension cords** - An adequate number of electrical outlets should be provided. Extension cords should only be used in situations where fixed wiring is not feasible, generally for temporary uses. However, if it is necessary to use an extension cord, avoid running it across walkways where it can be damaged and will pose a potential tripping hazard. If it is unavoidable to run a cord across a walkway, either tape it down with duct tape or other industrial tape made for the purpose, or purchase a cord runner.

**Receptacles and switches** - Wall receptacles and switches must be maintained so that no current-carrying parts will be exposed. Damaged wall plates should be replaced to eliminate the possibility of shock.

**Plugs** - Never pull a plug out by the cord. To remove a plug from an outlet, take a firm grip on the plug and pull the plug itself, not the wire.

**Disconnect appliances before maintenance** - Disconnect electrical appliances before cleaning, adjusting, or applying flammable cleaning solutions. If a machine guard is removed for cleaning or repair, replace the guard before testing the equipment or returning it to service.

**Do not block electrical panel doors** - Nothing should be placed within 36" of any electrical panel door. If an electrical malfunction should occur, the panel door, and anything else in front of the door will become very hot. This could ignite combustible materials stored too close. Electrical panel doors should always be kept closed, to prevent "electrical flashover" in the event of a malfunction.



## YCPARMIA

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### Anonymous safety suggestion box!

Go to our website at [www.ycparmia.org/](http://www.ycparmia.org/) , and click on the menu box entitled "Anonymous Safety Box". YCPARMIA forwards all submissions, exactly as written, to the appropriate entity's safety committee for their consideration and/or action.

## Climb Your Way to Safety

### Using ladders safely can prevent serious injuries

#### Choose Your Ladder Wisely

The type of ladder you choose — stepladder, straight ladder, or extension ladder — will depend on the job you need to do and how high you need to be to do it. Make sure that the ladder you choose is the right one for the job. And before you use it, give it a quick safety check.

- Are the rungs or steps firm and unbroken? Are they clean and free of dirt and grease?
- Does it have non-slip safety feet in good condition?
- If it's a stepladder, does it have a spreader to lock the ladder open? Does it have braces to keep the rails from swaying?
- If it's an extension ladder, is the rope in good condition? Are the rope and pulleys working smoothly?
- Is it tall enough for you to reach the job without standing on the top two rungs?

#### Set It Up Right

Here are some important points to keep in mind when setting up straight ladders and extension ladders. (The first two points apply to stepladders, too.)

- Place the ladder on a level surface.
- Use wide boards under the feet if you are on soft ground.
- Place the feet parallel with the top support.
- Leave at least 3 feet of extension above the top point of support.
- Anchor the ladder at the top, and have someone hold the bottom for you.
- Make sure the base of the ladder is placed one foot out from the wall for every four feet of the ladder's height, a ratio of 1:4.