

Safety Facts: Electrical Safety*

Intro

Most Canadians use electricity every day, both in the workplace and at home. However, we don't often consider the hazards in our day-to-day activities associated with electricity or electrically powered equipment.

Common mistakes associated with electrical safety

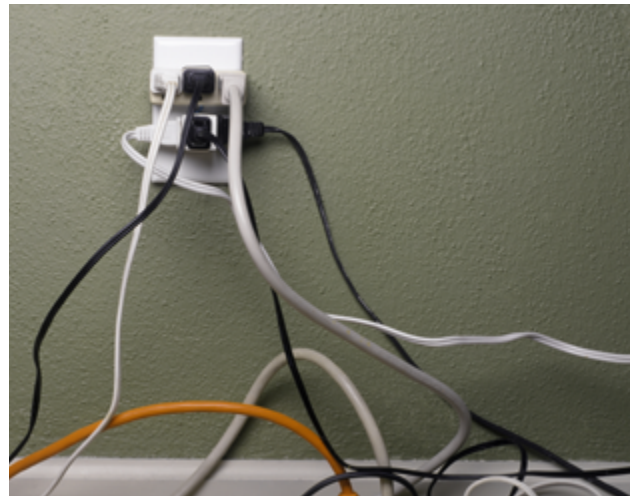
- Using extensions cords when installing more electrical outlets is more appropriate
- Overloading circuits by excessive use of power bars
- Using damaged electrical plugs or damaged power cords
- Using electrically powered equipment outside in areas of high moisture/humidity

Extension cords

- Are used to connect an electrical cord to the outlet if the main cable falls short
- Are often used instead of having an adequate number of outlets
- Can create a tripping hazard
- It can be a fire hazard if the cord is too long or too small a gauge for the wattage load
- Should be protected against damage from equipment rolling over them, wet surfaces, or pooling water
- Coiling an extension cord is dangerous as well because it can cause a heat build-up and resultant fire in the area of the coiled cord

Power bars

- People often plug many high-energy appliances or extension cords into a power bar without considering the electrical load placed on the bar.
- In older houses and buildings that do not have three-prong plugs or workplaces with two-prong extension cords, people often break off the third prong instead of using proper electrical connectors. This third prong is a means of grounding the electrical circuit to minimize the risk of an electrical shock to the user.



Regulations

The Occupational Health and Safety Regulations (Regulations) require portable electrical equipment to be double-insulated or effectively grounded using approved cords and polarized plugs inserted in grounded polarized receptacles.

Double-insulated tools do not have a third prong on the plug; however, they have supplemental insulation on all wiring in the device to minimize the risk of contact with the outer shell.

The Regulations also require using a ground fault circuit interrupter (GFCI) or other acceptable means of protection when using portable electrical equipment outdoors or in a wet or damp location.

GFCIs are an added level of protection against electrical shock because they will trip the circuit if there is an imbalance in the flow of current, even a tiny one. Do not use a GFCI in place of grounding unless permitted by the Electrical Safety Regulation. You find GFCI outlets in bathrooms, laundry rooms and outside receptacles in most homes built since 1975.

For additional resources visit:

[Electrical Safety](#) | Safety and Health for Electrical Trades

[Powered Hand Tools – Electric Tools – Basic Safety](#) | Canadian Centre for Occupational Health and Safety

Electrical Safety Toolbox Talk

Name of Facilitator: _____ Date: _____

Supervisor Signature: _____ Date: _____

Employee feedback/questions/recommendations

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Workers who attended

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Key Talking Points (Facilitator Notes)
