# Spot The Safety Violation: Don’t Daisy Chain Extension Cords



**Any ideas how this fire started’ Could it be due this mess of connected extension cords’**

Extension cords are very useful in the workplace because they provide easy access to electrical outlets that workers can use to power tools, lights and other equipment.

But daisy chaining’that is, connecting two or more extension cords or power strips together to gain additional outlets and/or length’is a very bad idea because it can overload circuits and cause fires, especially if you mix extension cords and power strips.

For example, this picture shows the aftermath of a fire’and it’s likely cause.

**EXTENSION CORD DOS & DON’TS**

To avoid electrical fires and other hazards related to extension cords, make sure that your safety training addresses such hazards. For example, the Texas Department of Insurance Division of Workers’ Compensation has compiled some useful dos and don’ts for safely working with extension cords:

**13 DOS:**

1. **Do** inspect an extension cord for physical damage before use.
2. **Do** check the wattage rating on the appliance or tool that the extension cord will be used with and don’t use an extension cord that has a lower rating.
3. **Do** make sure all equipment and extension cords bear the mark of an independent testing laboratory such as UL (Underwriter’s Laboratories).
4. **Do** make sure the plug on an extension cord is fully inserted in the outlet.
5. **Do** replace an outlet if a plug is too loose in it.
6. **Do** match up the plug and extension cord on a polarized cord (one hole on the plug is larger than the other).
7. **Do** keep extension cords away from water. Water or wet/moist conditions heighten the risk of electrical shock. For example, after a flood, the risk of such shocks is a common and serious safety hazard.
8. **Do** use Ground Fault Circuit Interrupter (GFCI) protection when using extension cords in wet or damp environments.
9. **Do** pull on the plug’not the cord’when removing an extension cord from the outlet.
10. **Do** store extension cords indoors.
11. **Do** unplug extension cords when not in use.
12. **Do** keep slack in flexible extension cords to prevent tension on electrical terminals.
13. **Do** put safety covers on the unused receptacle outlets on extension cords.

**14 DON’TS:**

1. **Don’t** use an extension cord marked for indoor use outdoors.
2. **Don’t** plug extension cords and/or power strips into each other as was done in this picture.
3. **Don’t** overload cords with more than the proper electrical load.

4. **Don’t** run extension cords through doorways or holes in ceilings, walls or floors.
5. **Don’t** move, bend or modify any of the metal parts of the extension cord plug.
6. **Don’t** plug a three-prong into a two-hole extension cord.
7. **Don’t** force a plug into an outlet.
8. **Don’t** use an extension cord when it’s wet.
9. **Don’t** overheat an extension cord.
10. **Don’t** cover an extension cord with anything.
11. **Don’t** drive over, stand or place anything on top of an extension cord.
12. **Don’t** drag an extension cord.
13. **Don’t** attach extension cords to the wall with nails or staples.
14. **Don’t** run extension cords under rugs or carpets, or in high traffic areas.

**IMPLEMENT AN ASSURED GROUNDING PROGRAM**

You may also be able to protect workers when using extension cords by implementing an Assured Grounding Program. As explained in WorkSafeBC’s Working Safely Around Electricity, the purpose of an Assured Grounding Program is to ensure that the black wires (hot), white wires (neutral), and, in particular, green wires (ground) of extension cords and power tool cords are properly connected by testing every extension cord and power tool when it’s first put into service, following repairs and every three months.

An Assured Grounding Program has four parts:

1. **Worker training**: All workers using extension cords and power tools under an Assured Grounding Program must be trained on the program.
2. **Daily visual inspection**: Extension cords and power tools must be checked for damage daily by the persons who’ll be using them. Any damage found must be repaired before the cord or tool is used. Damaged extension cords and

power cords of tools must not be spliced. The cords can either be replaced or shortened to remove the damaged portion.

3. **Continuity and polarity testing every three months**: A qualified worker must test every extension cord and power tool for circuit continuity and correct polarity before they're used for the first time, following repairs and during the months of January, April, July, and October. A qualified worker is a person who has been authorized by a supervisor to perform the task and who has received appropriate training.
4. **Colour-coding extension cords and power tools**: Extension cords and power tools that have been tested must be tagged with a coloured band about 10 cm (4 in.) from the male plug. Coloured electrical tape is suitable for this purpose. A different colour is required for each quarter of the year. The following colours are standard for all worksites using an Assured Grounding Program in BC:

*Red*: January, February, March

*White*: April, May, June

*Blue*: July, August, September

*Green*: October, November, December

For example, a new extension cord tested on Feb. 8 will have a red tag at the male plug. The extension cord must be retested and marked with a white tag during April.