

## *Things Are Heating Up in the Office*



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**FROM COMPUTERS** and printers to copier machines and refrigerators, offices are full of different types of electronic equipment. For the everyday office worker, electrical safety is most likely not on the minds of many. However, offices are not resistant to fires.

From 2007- 2011, it is estimated that the United States Fire Departments responded to an average of 3,340 fires in office properties per year. 44% of these fires were related to cooking equipment, electronic office equipment, or electrical distribution. Of this 44%, 29% were related to cooking equipment and small cooking appliances such as coffee pots, popcorn makers, and microwaves.

A fire can occur whenever there is the right combination of oxygen, heat, and fuel. Misuse of electronic equipment in an office, whether it's a microwave or a printer, can potentially lead to a fire. It is important for office staff to have some knowledge on the prevention of office fires related to electronic equipment.

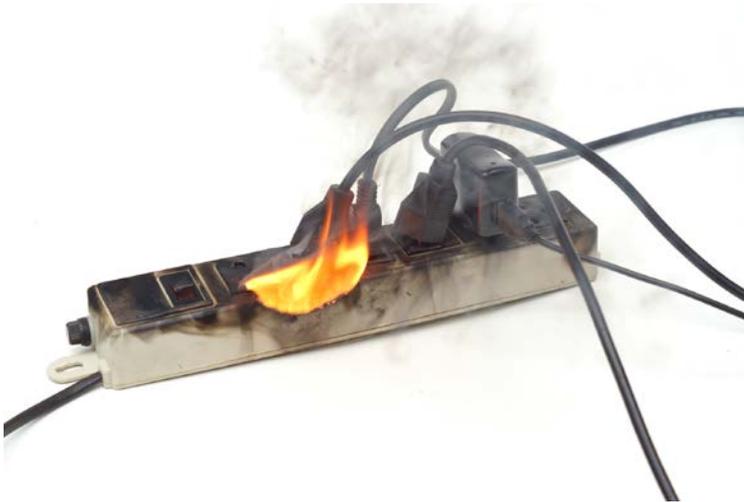
A common office electrical mistake is the misuse of power strips and high draw equipment. Power strips and surge protectors must never be plugged into other power strips, this is called "Daisy Chaining". When this occurs, the power strip which is plugged into the strip that's connected to the outlet, draws too many amps for the strip connected to the wall to handle. Power strips and surge protectors are not designed to be "Daisy Chained". Second, office staff may unknowingly plug common office "high draw" equipment (i.e. small cooking appliances, toasters, refrigerators, microwaves, space heaters) into power strips. By doing this, the equipment is drawing more amps than the power strip is rated for. Plug high draw equipment and small cooking appliances directly into the wall.



What does office electronic equipment need to be powered? Electricity. How does this electronic equipment get power? By plugging the office equipment into an outlet via a cord. Like anything, over time, cords can succumb to wear and tear and become damaged, torn, or ripped. A damaged cord with exposed wires presents a fire hazard. Exposed wires can send heat onto combustible surfaces, like floors, carpets, and paper. If you have a piece of equipment with a damaged cord, discontinue using it and get it replaced. You should never try to fix a cord yourself.



Extension cords are a common solution for when you need something plugged in and there are no available outlets nearby. National Fire Protection Association and OSHA codes require extension cords to be approved by recognized laboratories such as Underwriters Laboratories Inc.® (UL®). You'll see on the extension cord "UL® Listed". If the extension cord says "UL Approved," this is an incorrect reference and the extension cord should not be used. Office staff need to be diligent in purchasing extension cords to ensure the appropriate cords are being purchased. Extension cords are also only allowable in the workplace if they are considered temporary use, and for no more than 90 days.



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While a fire may not occur if there isn't the appropriate amount of oxygen, heat, and fuel, there is a possibility that these situations can lead to injury. Improper use of power strips, extension cords, and using damaged cords can lead to electrical burns. Although the cord or power strip may not be hot enough to catch on fire, it may be hot enough to cause a burn. Electrical burns can cause dermal injuries, damage to internal tissues, and can lead to heart rhythm problems (arrhythmias).

Please contact the Campus EHS Manager for your campus to discuss any of these issues and any other electric concerns you have.



References:

National Fire Protection Association <http://www.nfpa.org/news-and-research/fire-statistics-and-reports/fire-statistics/fires-by-property-type/business-and-mercantile/us-structure-in-office-properties>

Underwriters Laboratory <http://www.ul.com/marks/ul-listing-and-classification-marks/promotion-and-advertising-guidelines/specific-guidelines-and-rules/>

Mayo Clinic <http://www.mayoclinic.org/first-aid/first-aid-electrical-burns/basics/art-20056687>