

# **Electrical Fire Safety**

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Electrical fires in our homes claim the lives of almost 500 Americans each year and injure approximately 2,300 more. Some of these fires are caused by electrical system failures and appliance defects, but many more are caused by the misuse and poor maintenance of electrical appliances, incorrectly installed wiring, and overloaded circuits and extension cords. You can prevent the loss of life and property resulting from electrical fires by being able to identify potential hazards and following the safety tips on this page.

Electrical fires in our homes claim the lives of 485 Americans each year and injure 2,305 more. Some of these fires are caused by electrical system failures and appliance defects, but many more are caused by the misuse and poor maintenance of electrical appliances, incorrectly installed wiring, and overloaded circuits and extension cords.

Hamilton Fire District #3 would like consumers to know that there are simple steps you can take to prevent the loss of life and property resulting from electrical fires.

## **ON THE SAFETY CIRCUIT**

### **THE PROBLEM**

During a typical year, home electrical problems account for 67,800 fires, 485 deaths, and \$868 million in property losses. Home electrical wiring causes twice as many fires as electrical appliances.

### **THE FACTS**

December is the most dangerous month for electrical fires. Fire deaths are highest in winter months which call for more indoor activities and increase in lighting, heating, and appliance use. Most electrical wiring fires start in the bedroom.

### **THE CAUSE**

#### **Electrical Wiring**

- Most electrical fires result from problems with "fixed wiring" such as faulty electrical outlets and old wiring. Problems with cords and plugs, such as extension and appliance cords, also cause many home electrical fires.
- In urban areas, faulty wiring accounts for 33% of residential electrical fires.
- Many avoidable electrical fires can be traced to misuse of electric cords, such as overloading circuits, poor maintenance and running the cords under rugs or in high traffic areas.

## **Home Appliances**

- The home appliances most often involved in electrical fires are electric stoves and ovens, dryers, central heating units, televisions, radios and record players.

### **SAFETY PRECAUTIONS:**

- Routinely check your electrical appliances and wiring.
- Frayed wires can cause fires. Replace all worn, old or damaged appliance cords immediately.
- Use electrical extension cords wisely and don't overload them.
- Keep electrical appliances away from wet floors and counters; pay special care to electrical appliances in the bathroom and kitchen.
- When buying electrical appliances look for products which meet the Underwriter's Laboratory (UL) standard for safety.
- Don't allow children to play with or around electrical appliances like space heaters, irons and hair dryers.
- Keep clothes, curtains and other potentially combustible items at least three feet from all heaters.
- If an appliance has a three-prong plug, use it only in a three-slot outlet. Never force it to fit into a two-slot outlet or extension cord.
- Never overload extension cords or wall sockets. Immediately shut off, then professionally replace, light switches that are hot to the touch and lights that flicker. Use safety closures to "child-proof" electrical outlets.
- Check your electrical tools regularly for signs of wear. If the cords are frayed or cracked, replace them. Replace any tool if it causes even small electrical shocks, overheats, shorts out or gives off smoke or sparks.

Finally, having a working smoke alarm dramatically increases your chances of surviving a fire. And remember to practice a home escape plan frequently with your family.

### **PORTABLE GENERATOR HAZARDS:**

Portable generators are useful when temporary or remote electric power is needed, but they can be hazardous. The primary hazards to avoid when using them are carbon monoxide poisoning, electric shock or electrocution, and fire.

Hamilton Fire District #3 would like you to know that there are simple steps you can take to prevent the loss of life and property resulting from improper use of portable generators.

### **TO AVOID CARBON MONOXIDE HAZARDS:**

- Always use generators outdoors, away from doors, windows and vents.
- NEVER use generators in homes, garages, basements, crawl spaces, or other enclosed or partially enclosed areas, even with ventilation.
- Follow manufacturer's instructions.
- Install battery-operated or plug-in (with battery backup) carbon monoxide (CO) alarms in your home, following manufacturer's instructions.

- Test CO alarms often and replace batteries when needed.

**TO AVOID ELECTRICAL HAZARDS:**

- Keep the generator dry. Operate on a dry surface under an open, canopy- like structure.
- Dry your hands before touching the generator.
- Plug appliances directly into generator or use a heavy-duty outdoor- rated extension cord. Make sure en tire extension cord is free of cuts or tears and the plug has all 3 prongs, especially a grounding pin.
- NEVER plug the generator into a wall outlet. This practice, known as backfeeding, can cause an electrocution risk to utility workers and others served by the same utility transformer.
- If necessary to connect generator to house wiring to power appliances, have a qualified electrician install appropriate equipment. Or, your utility company may be able to install an appropriate transfer switch.

**TO AVOID FIRE HAZARDS:**

- Before refueling the generator, turn it off and let it cool. Fuel spilled on hot engine parts could ignite.
- Always store fuel outside of living areas in properly labeled, non-glass containers.
- Store fuel away from any fuel-burning appliance.

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