

November 2017

Cooking Fire Safety

Week 1: Carbon Monoxide Hazards

Week 2: Electrical Hazards

Week 3: Cooking Safety: Turkey Fryers

Week 4: Home Heating

Events:

West Virginia Weekend at the National Fire Academy Nov. 4th-5th

Educator Tips: Provide information on your community's most common types of fire calls and ways to avoid those situations. If you don't have your own data, you can use the statewide or national data. Make flyers available with tips on how to avoid these calls.

National Fire Service History:

- November 9, 1872 - Great Boston Fire (9 FF's Killed)
- November 15, 1942 - Boston Wall Collapse (6 FF's Killed)
- November 28, 1942 - Coconut Grove Nightclub Fire (492 deaths) Boston
- November 21, 1980 - MGM Grand Hotel Fire (85 deaths)
- November 29, 1988 - Kansas City Trailer Explosion (6 FF's Killed)

WV Fire Service History:

- On November 19, 1909, the Lincoln County Courthouse in Hamlin burned to the ground. While devastating fires were fairly commonplace in the early 20th century, it has been widely speculated that the Lincoln County Courthouse was an act of arson.
- On November 20, 1907, fire destroyed much of the business section of Oceana.
- On Nov. 26, 1952, a ward building at Huntington State Hospital, now Mildred Mitchell-Bateman Hospital, caught fire, killing 17 people.

Signs of carbon monoxide poisoning



Carbon Monoxide Hazards

Although the popularity of carbon monoxide (CO) alarms has been growing in recent years, it cannot be assumed that everyone is familiar with the hazards of carbon monoxide poisoning in the home.

Often called the invisible killer, carbon monoxide is an odorless, colorless gas created when fuels (such as gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely. In the home, heating and cooking equipment that burn fuel are potential sources of carbon monoxide. Vehicles or generators running in an attached garage can also produce dangerous levels of carbon monoxide.

The dangers of CO exposure depend on a number of variables, including the victim's health and activity level. Infants, pregnant women, and people with physical conditions that limit their body's ability to use oxygen (i.e. emphysema, asthma, heart disease) can be more severely affected by lower concentrations of CO than healthy adults would be.

A person can be poisoned by a small amount of CO over a longer period of time or by a large amount of CO over a shorter amount of time.

In 2010, U.S. fire departments responded to an estimated 80,100 non-fire CO incidents in which carbon monoxide was found, or an average of nine such calls per hour. The number of incidents increased 96 % from 40,900 incidents reported in 2003. This increase is most likely due to the increased use of CO detectors, which alert people to the presence of CO. During 2006-2010, municipal fire departments responded to an annual average of 72,000 carbon monoxide incidents, excluding incidents where nothing was found or fire was present. These incidents were more common during the winter months, and in residential properties. Carbon monoxide calls to fire departments are more common during the early evening hours.

Installing and maintaining CO alarms can also help reduce the risk of carbon monoxide poisoning. If you smell gas in your gas heater or other appliance, do not light it. Leave the home immediately and call your local fire department or gas company.



Carbon Monoxide Safety



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- » CO alarms should be installed in a central location outside each sleeping area and on every level of the home and in other locations where required by applicable laws, codes or standards. For the best protection, interconnect all CO alarms throughout the home. When one sounds, they all sound.
- » Follow the manufacturer's instructions for placement and mounting height.
- » Choose a CO alarm that has the label of a recognized testing laboratory.
- » Call your local fire department's non-emergency number to find out what number to call if the CO alarm sounds.
- » Test CO alarms at least once a month; replace them according to the manufacturer's instructions.
- » If the audible trouble signal sounds, check for low batteries. If the battery is low, replace it. If it still sounds, call the fire department.
- » If the CO alarm sounds, immediately move to a fresh air location outdoors or by an open window or door. Make sure everyone inside the home is accounted for. Call for help from a fresh air location and stay there until emergency personnel.
- » If you need to warm a vehicle, remove it from the garage immediately after starting it. Do not run a vehicle or other fueled engine or motor indoors, even if garage doors are open. Make sure the exhaust pipe of a running vehicle is not covered with snow.
- » During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.
- » A generator should be used in a well-ventilated location outdoors away from windows, doors and vent openings.
- » Gas or charcoal grills can produce CO — only use outside.



Your Source for SAFETY Information

NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02169

HOME HEATING EQUIPMENT



Have fuel-burning heating equipment and chimneys inspected by a professional every year before cold weather sets in. When using a fireplace, open the flue for adequate ventilation. Never use your oven to heat your home.

FACTS

- ! A person can be poisoned by a small amount of CO over a longer period of time or by a large amount of CO over a shorter amount of time.
- ! In 2010, U.S. fire departments responded to an estimated 80,100 non-fire CO incidents in which carbon monoxide was found, or an average of nine calls per hour.

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Electrical Hazards

Flipping a light switch. Plugging in a coffeemaker. Charging a laptop computer. These are second nature for most of us. Electricity makes our lives easier. However, we need to be cautious and keep safety in mind.

Electrical failures or malfunctions were factors in an estimated 47,000 home structure fires reported to U.S. fire departments in 2014. These fires caused 520 deaths, 1,250 injuries and \$1.4 billion in direct property damage.

Facts & figures:

- Roughly half (48%) of home electrical failure fires involved electrical distribution or lighting equipment.
- From 2007-2011, 46% of electrical failure home fires involved other known type of equipment. The leading other known type of equipment involved in home electrical failure fires are washer or dryer, fans, and portable or stationary space heater.
- Some type of electrical failure or malfunction was cited as factor contributing to ignition for 74% of electrical distribution or lighting equipment home structure fires.

Safety Tips:

- Call a qualified electrician or your landlord if you have:
- Frequent problems with blowing fuses or tripping circuit breakers
- A tingling feeling when you touch an electrical appliance
- Discolored or warm wall outlets
- A burning or rubbery smell coming from an appliance
- Flickering or dimming lights
- When you are buying or remodeling a home, have it inspected by a qualified inspector.
- Only use one heat-producing appliance (such as a coffee maker, toaster, space heater, etc.) plugged into a receptacle outlet at a time.
- Major appliances (refrigerators, dryers, washers, stoves, air conditioners, etc.) should be plugged directly into a wall receptacle outlet. Extension cords and plug strips should not be used.
- Arc fault circuit interrupters (AFCIs) shut off electricity when a dangerous condition occurs. Consider having them installed in your home. Use a qualified electrician.
- Use ground fault circuit interrupters (GFCIs) to reduce the risk of shock. GFCIs shut off an electrical circuit when it becomes a shock hazard. They should be installed inside the home in bathrooms, kitchens, garages and basements. All outdoor receptacles should be GFCI protected.
- Test AFCIs and GFCIs once a month to make sure they are working properly.
- Check electrical cords to make sure they are not running across doorways or under carpets. Extension cords are intended for temporary use. Have a qualified electrician add more receptacle outlets so you don't have to use extension cords.
- Use light bulbs that match the recommended wattage on the lamp or fixture. There should be a sticker that indicates the maximum wattage light bulb to use.



Cooking Safety: Turkey Fryers

The U.S. Consumer Product Safety Commission is issuing safety tips for preventing fires and burns when using turkey fryers. Since 1998, CPSC has reports of 75 incidents that involved fires, flames, or burns associated with turkey fryers.

The majority of reported incidents occurred while the oil was being heated, prior to adding the turkey. For this reason, it is very important consumers monitor the temperature of the oil closely. If any smoke at all is noticed coming from a heating pot of oil, the burner should be turned off immediately because the oil is overheated.

There is a risk of injury resulting from splashing due to the cooking of partially frozen meats. Thoroughly thaw and dry ALL meats before cooking in hot oil. One reported burn incident occurred when partially frozen chicken wings were added to hot oil in a turkey fryer.

CPSC staff recommends consumers who choose to fry turkeys follow the following safety guidelines:

- Keep fryer in FULL VIEW while burner is on.
- Place fryer in an open area AWAY from all walls, fences, or other structures.
- Never use IN, ON, or UNDER a garage, breezeway, carport, porch, or any structure that can catch fire.
- Raise and lower food SLOWLY to reduce splatter and avoid burns.
- COVER bare skin when adding or removing food.
- Check the oil temperature frequently.
- If oil begins to smoke, immediately turn gas supply OFF.
- If a fire occurs, immediately call 911. DO NOT attempt to extinguish fire with water.

For safest operation, CPSC staff recommends that consumers follow these guidelines as they prepare to use a turkey fryer:

- Make sure there is at least 2 feet of space between the liquid propane tank and fryer burner.
- Place the liquid propane gas tank and fryer so that any wind blows the heat of the fryer away from the gas tank.
- Center the pot over the burner on the cooker.

- Completely thaw (USDA says 24 hours for every 4 to 5 pounds) and dry turkey before cooking. Partially frozen and/or wet turkeys can produce excessive hot oil splatter when added to the oil.

Follow the manufacturer's instructions to determine the proper amount of oil to add. If those are not available:

- Place turkey in pot
- Fill with water until the turkey is covered by about 1/2 inch of water
- Remove and dry turkey
- Mark water level. Dump water, dry the pot, and fill with oil to the marked level.



5 gallons
of oil
+
350°
average turkey
fryer temperature
=
30
injuries
900
house fires
\$14 million
property damages

Deep Fryer Safety

With that in mind, here are some safety tips to ensure that your turkey frying experience is a safe one:

Do NOT try to extinguish an oil fire with water.

It will keep burning and may even spread the fire.

1. Thaw and dry the turkey completely before cooking.
2. Place the fryer in an open area away from structures that could catch fire.
3. Have at least two feet of space between the liquid propane tank and the fryer burner.
4. Position the fryer so that any wind will blow the heat of the fryer away from the fuel tank.
5. Ensure the pot is centered over the burner on the cooker.
6. Follow the manufacturer's instructions to determine the proper amount of oil to use.
7. Check the oil temperature often.
8. If you notice any smoke coming from the pot, turn off the burner immediately.
9. Lift and lower the cooked food slowly in order to reduce splatter and avoid burns.
10. As a precaution, cover any bare skin when adding or removing food.

9 1 1

Call 911 in case of a fire.

Fry safely. Then, enjoy your turkey with family and friends!

Sources:
Abrens, Marty. "Home Fires Involving Cooking Equipment." National Fire Protection Association Fire Anal. Nov. 2011. Web. 27 Sept. 2012. http://www.nfpa.org/assets/files/PDF/DS_Cooking.pdf.
"Turkey Fryers." National Fire Protection Administration. Nov. 2007. Web. 03 Oct. 2012. <http://www.nfpa.org/itemDetail.asp?categoryID=1700>.

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Home Heating Safety

In 2009-2013, heating equipment was involved in an estimated 56,000 reported U.S. home structure fires, with associated losses of 470 civilian deaths, 1,490 civilian injuries, and \$1.0 billion in direct property damage. These fires accounted for 16% of all reported home fires.

Facts & figures:

- Space heaters, whether portable or stationary, accounted for two of every five (40%) of home heating fires and four out of five (84%) of home heating fire deaths.
- The leading factor contributing to home heating fires (30%) was failure to clean, principally creosote from solid-fueled heating equipment, primarily chimneys.
- Placing things that can burn too close to heating equipment or placing heating equipment too close to things that can burn, such as upholstered furniture, clothing, mattress, or bedding, was the leading factor contributing to ignition in fatal home heating fires and accounted for more than half (56%) of home heating fire deaths.
- Nearly half (49%) of all home heating fires occurred in December, January and February.

Some simple steps can prevent most heating-related fires from happening.

- Keep anything that can burn at least three feet away from heating equipment, like the furnace, fireplace, wood stove, or portable space heater.
- Have a three-foot “kid-free zone” around open fires and space heaters.
- Never use your oven to heat your home.
- Have a qualified professional install stationary space heating equipment, water heaters or central heating equipment according to the local codes and manufacturer’s instructions.
- Have heating equipment and chimneys cleaned and inspected every year by a qualified professional.
- Remember to turn portable heaters off when leaving the room or going to bed.
- Always use the right kind of fuel, specified by the manufacturer, for fuel burning space heaters.
- Make sure the fireplace has a sturdy screen to stop sparks from flying into the room. Ashes should be cool before putting them in a metal container. Keep the container a safe distance away from your home.

Heating Fire Safety

Follow these heating tips to help maintain a fire-safe home this winter.



Space Heater

- Keep anything that can burn, such as bedding, clothing and curtains, at least 3 feet away from the heater.
- Make sure the heater has an automatic shut-off, so if it tips over, it shuts off.
- Turn heaters off when you go to bed or leave the room.
- Plug portable heaters directly into outlets and never into an extension cord or power strip.
- Only use portable heaters from a recognized testing laboratory.



Fireplace

- Keep a glass or metal screen in front of the fireplace to prevent embers or sparks jumping out.
- Do not burn paper in your fireplace.
- Put the fire out **before** you go to sleep or leave your home.
- Put ashes in a metal container with a lid, outside, at least 3 feet from your home.



Wood Stove

- Make sure your wood stove is 3 feet from anything that can burn.
- Do not burn paper in your wood stove.
- Put the fire out **before** you go to sleep or leave your home.
- Have your chimney inspected and cleaned each year by a professional.



Furnace

- Have your furnace inspected each year.
- Keep anything that can burn away from the furnace.



Kerosene Heater

- Only use kerosene heaters from a recognized testing laboratory.
- Make sure the heater has an automatic shut-off, so if it tips over, it shuts off.
- Refuel your **cooled** heater outside.

U.S. Fire Administration



FEMA

Click Here to Add Image

For more information and free resources, visit www.usfa.fema.gov/prevention/outreach.

Heating Your Home Safely



Deaths and injuries from the careless use and improper installation of heating units can be prevented! Here are some basic rules which will help you avoid the anguish of personal injury or property loss.

- Ask a heating expert to help you choose the safest, most efficient and economical unit for your home.
- Don't try to install your own heating system. Leave it to a qualified technician.
- When buying a new home – ask a specialist to inspect the heating system. Purchasing a new furnace and installing new wiring is expensive.

Solid Fuel

A solid fuel heating system uses wood, coal or fuel pellets.

- Don't choose a unit that is too large for your needs. Select a heating unit that is appropriate to the size of the floor space you want to heat.



- The unit should be properly positioned, according to the manufacturer's specifications for correct clearance.
- Install your unit close to a chimney.

Electric

Electric heating includes baseboard, portable and forced-air systems.

- Curtains should not hang over an electric baseboard heater.
- Electric portable heaters are designed to be used to supplement your main heating source. They are intended for smaller floor spaces.
- Units must be properly maintained. Frayed cords and loose plugs can cause fires.
- Never remove the third prong on a three-prong plug or bend it back to use a two-prong outlet. The third prong is a necessary ground for the appliance or heater.
- Never use extension cords to run electric heaters or any major appliance.

Liquid Fuel

- Liquid fuels include oil, waste oil and kerosene. Oil fuel heaters such as oil furnaces and oil-fired space heaters pose certain hazards which can be avoided.
- Fuel must be stored in an approved container/tank.

- Regular servicing by a qualified technician is necessary for the efficient and safe operation of your furnace.
- Ventilation systems for oil-fuelled units must be inspected frequently.
- Waste oil heaters are designed for use in commercial buildings and should not be installed in a residence.
- Kerosene heaters must be supervised at all times. They are dangerous to children and pets.
- Kerosene heaters should only use fuel which is specified by the manufacturer.
- Never refuel a kerosene unit indoors, or when the unit is hot.

Gas Fuelled

- Vents must be checked frequently to prevent blockage.
- Portable gas heaters should never be installed in poorly ventilated areas. Deadly carbon monoxide gases may build up in such areas.
- A supply of fresh air is essential when operating a gas-fired unit.

Safety Tips

- Keep all heaters a safe distance from combustibles.
- Never hang clothing on, or near the heater to dry.

- Never use your stove or clothes dryer to heat your home.
- Don't use a hair dryer under the covers to warm your bed, it could set it on fire!
- Keep bed clothes and toys away from baseboard heaters.
- Never place wet wood on top of a wood stove to dry. Keep your wood stored under cover in a dry, vented area.
- Frequently check your wood stove for defects such as cracks and swelling.
- Second-hand appliances should be checked by a qualified person before use.



- Have your local fire department check your home for safety hazards.
- Develop an emergency escape plan for your family, and practise it regularly.
- In case of fire, **get out and stay out!** Use a neighbour's phone to call the emergency response number in your area.



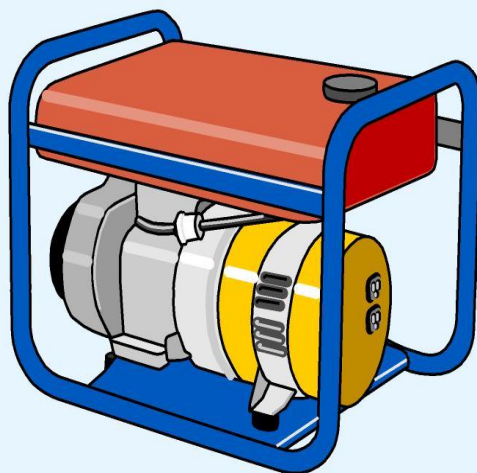
Prince Edward Island Fire Fighters Association



Metro Fire Prevention Association







Portable generator safety

When the power goes out a portable generator can be a lifesaver, but used improperly it also can become life-threatening.



Symptoms of carbon monoxide exposure

These are possible complications average adults may expect from different percentages of carbon monoxide in their blood:

-  **10 percent:** Headaches may develop, or there may be no apparent symptoms. A carbon monoxide detector will activate.
-  **15 to 25 percent:** Headache and nausea.
-  **30 to 35 percent:** Drowsiness, weakness, dizziness, dimmed vision, severe headache, nausea and vomiting.
-  **40 percent:** Confusion, increased heart rate and blackout spells.
-  **45 percent:** Convulsions, permanent brain damage.
-  **50 percent:** Convulsions, coma and death.

DANGER

REASON

PREVENTION

Carbon monoxide poisoning

Gasoline-powered generators exhaust carbon monoxide, a colorless, odorless gas that displaces oxygen in the hemoglobin of the red blood cells.

Operate generators away from the house, in a well ventilated area. If it's in the garage, make sure the garage is open.

Backfeed shock

The generator is connected to the home's wiring system, posing a hazard to anyone working on powerlines.

Plug appliances you want powered directly into the generator. If powering a hard-wire item, such as the furnace fan, you will need a transfer switch. The switch should only be installed by a licensed electrician and requires an electrical permit and an electrical inspection.

Fire

Overloaded cords can overheat and cause fires. Small gasoline engines can sometimes backfire, causing sparks.

Be sure extension cords are properly sized to carry the electric load. Install a spark arrest muffler and keep the generator away from combustible material.