



Home Heating Safety

During the winter season and the December holidays in particular, we depend on our heating systems to keep us warm and cozy. When used properly and in accordance with the manufacturer's directions heating sources are safe and convenient, but used improperly, heating sources are a disaster waiting to happen.

Heating equipment is the number one cause of fires and fire losses during the months of December and January. Fires caused by home heating equipment increase by an average of 72 per cent between December 15-31.

Heating equipment includes furnaces, which provides heat through a forced air distribution system, boilers, which provides heat through a water system, space heaters (wood stove, fireplace, baseboard or portable heater), which supply heat directly to the room where they are located, and heat pumps, which extracts heat from the air, ground or water outside the home and usually deliver it through a forced air distribution system.

General heating safety tips

- Ensure heating equipment is labelled by a recognized testing agency such as the Canadian Standards Association (CSA), Intertek Testing Service (ITS), or Underwriter's Laboratories (UL/ULC).
- Heating equipment should be inspected and serviced at least once a year to ensure efficient and safe operation of the appliance. Chimneys and chimney connectors, fireplaces, wood stoves, furnaces, and heat pumps should be inspected by a qualified professional once a year and cleaned and serviced as necessary.
- Heating equipment located too close to flammable items is the number one cause of heating fires. Keep all combustibles at least 1 metre away from heating equipment.
- Never hang clothing on or near heating equipment to dry.
- Cooking stoves and grills should not be used as heating equipment.
- Make sure you do not leave heating equipment unattended.
- Never leave children alone in a room where heating equipment is being used. Children can be badly burned by touching heating equipment
- Install at least one carbon monoxide detector in your home, especially near bedrooms. Carbon monoxide is a deadly gas produced by appliances that run on fuels such as wood, gas, oil or coal. Know the early warning signs of low-level carbon monoxide poisoning: tiredness, headaches, dizziness, nausea, and shortness of breath.

Home heating with wood

It can be comforting to curl up beside a crackling fire or gather family and friends around the warmth of a wood stove or fireplace on a cold winter night especially during the holiday season. Although wood heat is an economical and renewable heat source, poor wood-burning practices can cause dangerous and devastating home and chimney fires.

In Alberta, during the holidays (Dec 15-31), like the rest of the year, solid fuels such as wood are involved in the majority of heating related fires. Take the necessary steps now to ensure that wood burning appliances are installed and operated properly to eliminate any potential fire and health hazards.

Keep a safe kitchen

With pies baking, turkey's roasting and sauces simmering, the kitchen is a hub of activity during the holiday season. Unfortunately, it is also a place where many fires, injuries, and deaths occur, especially during this busy time of year.

During the December holidays, cooking fires are a leading cause of home fires. Most holiday cooking fires start because people get distracted and leave their cooking unattended. The majority of cooking fires start with the ignition of cooking oils (both vegetable oils and animal fats).

When cooking oil is heated beyond 200 degrees Celsius, flammable vapours are formed which are easily ignited by flames from a gas stove burner or contact with a hot surface such as a hot electric stove element. If the oil gets hot enough, these vapours can self-ignite. Re-used oil, which may have food residues, can catch fire at an even lower temperature than fresh oil. In Alberta, most home cooking fires and injuries occur when cooking oil becomes overheated while frying foods in pots or pans on the stovetop of an electric stove.

A few tips to remember:

- Do not leave cooking unattended. Check on your cooking regularly, and use a timer to remind you that the stove or oven is on.
- If you must leave the kitchen when you're cooking, even for a short period of time, turn off the stove and remove the pot from the burner.
- Keep children and pets away from cooking areas. Enforce a "kid-free zone" keeping children at least one metre away from cooking equipment.
- To prevent overheating and ignition of cooking oil, fry foods in a temperature controlled deep-fat fryer or skillet designed for a maximum temperature of 200 degrees Celsius.
- Keep potholders, oven mitts, utensils, food packaging, paper and plastic bags, towels and other flammable objects away from the stove top.
- Clean food and grease from stove tops.
- Avoid wearing loose fitting clothing or dangling sleeves while cooking.
- Always keep an oven mitt and a lid nearby when cooking. If a small grease fire starts in a pan, smother the flames by carefully sliding the lid over the pan (while wearing the oven mitt) and turn off the burner. To keep the fire from restarting, don't remove the lid until the pan is completely cool.

- Do not throw water on an oil or grease fire. If water is added to a flaming pot of oil it can spread droplets of flaming oil across the kitchen area. Also, do not try to move a pan of burning oil, as the oil may splash over the edge and start new fires or inflict serious burns.
- In case of an oven fire, turn off the heat and keep the door closed to prevent flames from burning you or your clothing.

Electrical fires

Electricity is a great convenience in our lives, but we need to remember that the electrical energy carried in wires and used in appliances can lead to dangerous fires if allowed to escape. During the holiday season, electricity becomes an even larger concern because it is a leading cause of fires during this time of year. This holiday season and routinely throughout the year, check your electrical equipment for fire hazards by following the tips below.

Some clues that you may have an electrical problem are:

Flickering lights: If the lights dim every time you turn on an appliance it means that the circuit could be overloaded.

Sparks: If sparks appear when you insert or remove a plug, it could be a sign of loose connections.

Frayed or cracked cords: The insulation on electrical cords can become damaged by wear, flexing, or age. Without adequate insulation electricity can escape.

Warm electrical cord: If an electrical cord is warm to the touch, the cord is overloaded or defective.

Frequent blown fuses or broken circuits: A fuse or circuit breaker that keeps tripping is an important warning sign of problems.

Heat is also a by-product generated by electrical appliances and lamps. Adequate air space must be maintained around electrical appliances to dissipate the heat. Combustible items should be kept away from them at a safe distance.

When buying electrical appliances look for products that meet the Canadian Standards Association (CSA) or Underwriter's Laboratory (ULC) standard for safety.

- Unplug space heaters, irons, hair dryers, curling irons, electric blankets, toasters and other appliances when not in use.
- Replace or repair electrical appliances that overheat, spark, short-out, smoke, or have cracked or frayed cords. When in doubt, call an electrician.

Holiday decorations

Decorations can add to the enjoyment and beauty of the holidays. Inside and outside lights and other types of decorations warm up the festivities. Nevertheless, holiday decorations can contribute to a fire.

Follow these decoration tips for a safe holiday:

- Use only non-combustible or flame resistant materials to decorate your home or tree.
- Never use lit candles on a tree or near other evergreens. Always use non-flammable candle holders and place candles where they cannot fall or be knocked down.
- Christmas wrapping and decorations can be highly combustible and should be kept away from heat sources such as candles, lamps, fireplaces and wood burning stoves.
- Never put wrapping paper in a fire place. Rapid burning can generate sparks or ignite creosote in the chimney.
- When selecting a live Christmas tree ensure the needles are fresh and green. The needles should not break off easily. If they do the tree has dried out and is a safety hazard.
- Never place furniture, rugs or other objects over electrical cords. Any damage the cord may sustain can go unnoticed.
- Locate decorations in an area that will not block or interfere with an exit, or exit route.

Eliminate Tree Trouble

The tree with all its trimmings is undoubtedly the focus of the Christmas holidays for the most of us. Christmas trees are one of the most popular traditions of the season – and one of the most dangerous. Whether you choose a live or an artificial tree, safety should be your top consideration.

Selecting a Tree for Christmas

Consider switching to an artificial tree. Many artificial trees are fire resistant. If you buy one, look for a statement specifying this protection.

When purchasing live, cut trees or greens, carefully inspect the needles. If they are brown or break or fall off easily, the tree has probably dried out and can be a fire hazard.

A fresh tree will have a trunk that is sticky with sap.

Caring for your trees

Make sure the tree is at least 1 metre away from any flame or heat source, including a fireplace or heat vent. The heat will dry out the tree, causing it to be more easily ignited.

Try to position the tree near an electrical outlet so that cords can be short and do not need to run long distances.

Do not place the tree where it may block exits.

When you're ready to put up your tree, cut off about two inches of the trunk on live trees to expose fresh wood for better water absorption. Use a sturdy water holding stand with wide spread feet and keep the stand filled with water while the tree is indoors. Keep trees supplied with water at all times as dehydrated trees can catch fire more easily.

Decorating your tree

- Decorate your tree with non-flammable decorations.
- Never use electric lights on a metallic tree. The tree can become charged with electricity from faulty lights and a person touching a branch could be electrocuted.
- Never decorate a tree with candles
- Use only lighting approved by a testing agency and only hang lights that are in good condition.

Disposing of your tree

Never put tree branches or needles in a fireplace or wood burning stove. They can spark and ignite nearby items.

When the tree becomes dry, discard it promptly.

The best way to dispose of your tree is by taking it to a recycling centre or have it hauled away by a community pick up service.

Remove the tree from the house as soon as possible after Christmas.

Give gifts that save lives

When you are trying to find that perfect gift for a friend or family member, how about creating a tradition that includes a gift that could potentially save a life? Consider wrapping up some safety and putting it under the tree with gifts such as:

- smoke alarms complete with batteries;
- carbon monoxide alarms;
- multipurpose fire extinguishers;
- fire escape ladders for second-floor bedrooms;
- window guards, especially for children living in high-rises;
- non-slip bath mats or shower grab bars;
- anti-scald devices, which help control faucet temperatures;
- child locks, baby gates and outlet covers;
- flashlights and batteries; or
- night lights.

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Smoke alarms

What's so important about a smoke alarm, anyway?

Did you know that most people who die from fires die from breathing smoke and toxic gases and not from flames. And did you know that most deadly fires happen during sleeping hours?

In a fire, carbon monoxide, hydrogen cyanide, ammonia and hundreds of other chemicals in the smoke can poison you. These chemicals can render a person confused and disoriented or even unconscious after only a few short breaths.

Even a small fire can produce enough smoke to poison you within seconds. And if you live through those few moments, a small fire can erupt into "flashover" in as little as three minutes. That's what it's called when a room gets so hot everything suddenly bursts into flames. Three minutes is not enough time to recognize a fire emergency and organize an escape, especially if you have been overcome with smoke. You will need an early warning of smoke and fire danger to escape from a fire emergency in time. Your smoke alarm was designed to give you this early warning.

The Alberta Fire Code requires all homes in the province to have working smoke alarms. All homes constructed prior to July 5, 1977 are required to have a smoke alarm, which is to be located between the living and sleeping area or in the hallway of the sleeping area if one exists. The required smoke alarm may be battery operated. All homes constructed between July 5, 1977 and 1997 must contain at least one smoke alarm. This smoke alarm must be wired permanently to the home's electrical system and must be located between the living and sleeping area or in the hallway of the sleeping area if one exists. Where there is more than one hardwired alarm, the alarms must be interconnected such that all alarms sound when one is triggered.

All homes constructed after 1997 require hardwired and interconnected smoke alarms on each storey of the home, including one located between the living and sleeping area or in the hallway of the sleeping area if one exists.

For rental properties, it is the responsibility of the owner or the authorized agent to ensure that smoke alarms are installed, tested and cleaned prior to occupancy. Upon occupancy, it is the renter's responsibility to test and maintain the smoke alarm in good working condition. This includes dusting units and replacing batteries when they are due. Faulty units should be immediately reported to the landlord. This does not apply to hotels or motels, which must maintain their fire alarm systems, including smoke alarms, on a regular basis.

Here are a few things you can do to protect yourself from a deadly fire with the help of home smoke alarms:

- Install at least one smoke alarm on every level of your home, including the basement (but not in unfinished attics).
- Locate a smoke alarm outside of each bedroom or sleeping area in your home, and keep bedroom doors closed while you sleep.
- Replace batteries every year, including back-up batteries in electrical alarms; if alarms chirp, replace batteries immediately.
- Test alarms at least once a month.
- Replace smoke alarms every 10 years.

Also remember that a smoke alarm cannot warn you of a fire emergency if it does not activate. Smoke alarms need a power source, such as a battery or household electricity, to activate. Never disconnect a smoke alarm or remove a battery for any reason including nuisance alarms. If steam from the bathroom or cooking fumes causes the smoke alarm to sound, fan the air near the alarm until the alarm sound stops. To prevent nuisance alarms relocate a smoke alarm farther away from the kitchen and bath, dust or vacuum the alarm, or if it is an older unit consider replacing it.

Fire traps

Are there fire traps in your home?

If you think leaving your home during a fire emergency will be easy, then you're dead wrong. You may think you know the exits and escape routes from your home like the back of your hand, but in a real fire emergency, obstacles can interfere with your escape. Fire changes the familiarity of your escape routes. In a fire, you can't breathe, you can't see, and you can't think or reason; your reactions may be affected by panic, reduced visibility and dulled senses due to smoke and poisonous gases. You may have to provide for rescue and evacuation of children, the elderly, people with disabilities, or people who are intoxicated from the use of medication, alcohol or drugs. Exits may be blocked or too hard to use. A fire emergency is no time to consider these obstacles; you only have minutes to escape. You will need to address these factors ahead of time. If you plan for and practice with these obstacles, you will know exactly what to do during a real fire emergency, almost automatically, to quickly and safely get out from a burning house.

Plan Your Escape

- Involve the whole household in drawing a simple floor plan of your home, marking exactly how to get out in a fire emergency.
- Identify two exits from each room that you can use to escape. Planning two escape routes could save your life if one exit is blocked by smoke or fire.
- Establish a safe meeting place outside the home.
- Assign a designated helper for any person living in your home who may not be able to escape the fire emergency on his or her own.

Practice Your Escape Plan

- Practice your home fire escape plan at least twice a year with everyone living in your home.
- Make the drill as realistic as possible. Sound the smoke alarm, and practice different scenarios and escape routes. Practice your escape using the escape tips identified below.
- Most fire emergencies happen at night. Practice your escape plan at night to ensure everyone can respond.

How to Escape from a Fire

Get Low and GO. Smoke will rise to the ceiling leaving cooler, cleaner air close to the floor. However, some toxic products in smoke are heavier than air and may settle to the floor, so ensure that no one slides on their belly.

Check the door with your hand. If the door is hot, fire could already be burning through! That's when you'll use your alternate exit. If the door is cool it may be safe. Brace your shoulder against it, turn

your face away and open it a crack to check. If there is any smoke or heat, slam the door shut and head for an alternate exit.

Make sure everyone knows how to open the windows in your home. In most cases, a window will be your best alternate exit. If you have to smash it to get out - do it. Place a blanket or pillow on the window sill to protect yourself from broken glass. If the bedroom windows are high above the ground, consider getting fire ladders, and practice so everyone knows how to use them.

Close doors behind you. A closed door can prevent toxic smoke and flames from spreading beyond the room of origin and could give you a few lifesaving seconds to escape.

Get out and stay out. Decide on a meeting place outside so everyone can be accounted for. Designate one person to find a phone away from the home, and call the fire department. Do not go back inside the house until the fire department says it is okay to do so.

If you are trapped, protect yourself until help arrives. If you can't leave the building because smoke or fire is blocking your exits, call the fire department to report your exact location and gather in a room with a window to await arrival of firefighters. Close all doors between you and the fire. Stuff air vents and cracks with duct tape, wet blankets, towels or clothing. Then, carefully open a window at the top or bottom, if possible, to let fresh air in. Don't break the window - if smoke enters the room from outside the building, you won't be able to protect yourself. Wave a flashlight or a light colored cloth at the window to let the fire department know where you are.

If you live in an apartment know your building's evacuation plan and participate in fire drills, which should be held at least once a year. If you can't leave the building due to smoke or fire blocking your exits, follow the guidelines outlined above for trapped occupants.

Older adults and the impaired should consider sleeping in a room on the ground floor level to make emergency escape quicker and easier. Incorporate their special needs into the fire escape plan.

Plan a home escape plan and practice your escape following the guidelines in these steps. Your local fire prevention officer can help you determine and overcome any limiting factors or challenges.