

2008 Winter Fire Safety Kit for Alberta Homes

Alberta Emergency
Management Agency



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Message from the Managing Director Alberta Emergency Management Agency



Dear Albertans:

With the winter weather conditions we are now experiencing in Alberta, we must all continue to be mindful of the importance of fire prevention and safety and ensure fire hazards are kept under control in our homes.

Keeping our homes warm, and all our other winter activities, can lead to fires if we are not vigilant. **The most common fire causes during the winter season are fires related to candles, home heating, cooking, smoking, children playing with fire, laundry dryers, and electrical sources.**

The fire prevention and safety information in this kit provides safety tips to help you and your family, friends and co-workers have a fire-safe winter season. Fire prevention on your part also helps ensure the safety of first responders in your community.

For more information on fire safety, visit the Alberta Emergency Management Agency website at www.aema.alberta.ca, or phone 780-427-8392 (toll-free in Alberta at 310-0000).

Sincerely,

Original signed by

E. David Hodgins
Managing Director
Alberta Emergency Management Agency

Alberta - A Province Prepared

Message from the Acting Fire Commissioner Alberta Emergency Management Agency



There is an increased fire risk during the winter months, and this campaign kit can help Albertans take action to prevent fire tragedies in their homes.

According to fire statistics available from the Fire Statistics Information System at the Alberta Emergency Management Agency, heating devices are the leading cause of fires in the home during December, January and February. Other common causes of home fires during the winter months include cooking, smoking, candles and arson and vandalism. Recent tragic deaths in Alberta from carbon monoxide poisoning also remind everyone to be cautious when use fuel-burning appliances inside homes or when idling vehicles inside confined spaces such as garages.

I encourage each and every Albertan to practice fire safety during the winter months. This kit contains many fire safety pointers that can help you do so. Our first line of defence is to prevent fires, and then we must ensure smoke alarms in our homes are in working condition. Make sure you test all the alarms in your home and replace batteries as needed. Of course, you must also have and practice a fire escape plan for your family, so everyone knows how to get out safely during a real fire emergency.

Most home fires are preventable if the key safety measures are followed. Let's be safe while we are keeping warm this winter!

Yours in fire safety,

Original signed by

Ernie Polsom
A/Fire Commissioner
Alberta Emergency Management Agency

Winter season home fire safety tips

- Left unattended, cooking and especially frying in pots and pans can turn into a fire incident in your kitchen. Plan your kitchen activities and attend to what's heating on the stove. If you are distracted, turn off the heat and remove pots and pans before doing anything else.
- Heating appliances such as space heaters need at least one metre (three feet) of space around them. Avoid placing any combustibles within this space.
- Electrical and heating systems can fail and become fire hazards. Ensure they are regularly checked by a professional, especially prior to the winter season when fireplaces, heaters, appliances and other electrical equipment are in maximum use.
- Carbon monoxide (commonly known as CO) is a colourless, odourless toxic gas. When inhaled, CO reduces blood's capacity to carry oxygen, and in severe cases, CO poisoning may cause brain damage and death. CO levels can build up in enclosed spaces when fuels are burned incompletely, and can come from sources such as idling vehicles in garages, and improperly used and maintained gas appliances inside the home. **Install a carbon monoxide detector in your home.**
- Smoking while in bed, tired or under the influence of alcohol or medication is the most common cause of fires that kill. Many such fires start on upholstered furniture ignited by fallen smouldering cigarettes or butts. Avoid smoking if you're not fully awake and alert. Check sofas and cushions after a party for smouldering butts that can start a deadly inferno while you sleep.
- Candle-related fires increase during the winter months. Please remember that an open flame is an invitation to fire. Ensure candles are mounted firmly on metal or glass candleholders, or place them in non-combustible containers away from combustibles such as curtains, clothing and spray from aerosol cans.
- Matches and lighters in the hands of young children are a deadly combination. Supervise children at all times and keep matches and lighters out of their reach.
- Most chimney fires happen in wood-burning fireplaces. Ensure chimneys are cleaned and professionally inspected regularly. Burn only small quantities of wood at a time.
- Avoid loose-fitting clothing that can ignite when close to open flames or hot stove burners.
- If a fire does break out, will your smoke alarms warn you? Test your smoke alarms to ensure they are working properly.
- In the event of a fire, alert everyone in your household, get out quickly, and call the fire department from a neighbour's phone.
- Albertans are reminded to ensure they have working smoke alarms and a well-rehearsed home fire escape plan in case a fire does break out in their home.

For further information on fire safety, please call the Alberta Emergency Management Agency at 780-427-8392. Dial 310-0000 for toll-free access or visit the website at: www.aema.alberta.ca.

Carbon monoxide—the silent killer!

What is carbon monoxide?

- Carbon monoxide (CO) is a poisonous gas that is odourless, colourless, tasteless and non-irritating. In fact, it is so undetectable that you probably wouldn't even know if you were breathing it—that's what makes it so dangerous.
- CO results from the incomplete combustion of such common fuels as natural gas, coal, heating oil, charcoal, propane, kerosene, gasoline and any other combustible material such as tobacco, cloth, paper or wood. CO is also found in exhaust fumes from motor vehicles and malfunctioning heating equipment.
- Smoke inhalation from fires is the most common form of CO poisoning. Cigarette smoke and vehicle exhaust are the most common sources of regular CO exposure.

NOTE: There must be an adequate supply of air for complete burning or combustion. If there is not enough air available, or if the burner is not operating properly, incomplete combustion will result in excessive production of CO. Proper venting of fuel-burning appliances to the outside is essential to prevent collection of CO gas inside buildings.

Carbon monoxide poisoning

When CO is inhaled, it combines with the haemoglobin in the blood stream and prevents it from carrying oxygen to the cells in the body. When the cells, especially in the heart and the brain, do not get enough oxygen they do not function properly. Death can result from CO poisoning.

- Exposure to CO can cause headaches, confusion, dizziness, weakness/fatigue, tightness across the forehead and in the temples, nausea and other symptoms similar to those associated with the flu.
- The severity of the symptoms will vary depending on the person's age, general health, level of physical activity and the duration and concentration of exposure.

Action to take if you suspect carbon monoxide poisoning

- Have everyone leave the premises and seek medical attention immediately. This is important if everyone in the household is suffering from the same symptoms at the same time, or if symptoms improve when they leave the premises. Call the fire department or a qualified technician to inspect for sources of CO.
- If you suspect a CO problem, but are not experiencing any symptoms, you should open doors and windows to air out the home, then call the fire department or a qualified technician to inspect for sources of CO. Because you've aired out your home, the CO build up may have dissipated by the time help responds. Although it may appear that the problem is solved, it is crucial that the source of CO is determined and appropriate repairs are made.
- Other danger signs to look for are stale, stuffy or smelly air. Backdrafts and soot from the fireplace or furnace chimney usually means that your home needs more air for proper combustion and healthy living.

Preventing carbon monoxide problems

Here are a few common sense precautions that can greatly reduce the risk of carbon monoxide poisoning in the home:

- Never operate or idle cars, trucks, motorcycles, lawnmowers or other types of internal combustion engines in an enclosed area, such as a garage or a confined carport.
- Keep stove and fireplace chimney vents clear of debris or other blockages that can prevent furnace gases from exhausting safely to the outside of your home.
- For all fuel-burning equipment, make sure that vent hoods and pipes are securely in place and that external vents are not blocked by insulation, leaves, debris or birds nests. All gas appliances, except ranges/stoves, must be vented to the outdoors.
- Ensure that your chimney has the proper lining and is in a good state of repair.
- Never operate charcoal grills, portable gas grills or similar equipment inside a home, tent, trailer, garage or other enclosed areas.
- Do not use a range, oven or clothes dryer for heating.
- Never insulate or try to seal up a drafty hood, wind cap or exhaust vent on any natural gas appliance (furnace, water heater, range, dryer, space heater or fireplace). Keep all fuel-burning equipment free of lint, dust and trash. Don't store anything close to the equipment that could restrict air circulation.
- Caulking and weather-stripping, exterior home siding, interior insulation (particularly in basements), and new windows may reduce the flow of outside air into the home. For a tightly sealed house it may be important to install an outside vent to provide air for a furnace, stove or fireplace.

Appliances that consume or exhaust air out of the home may starve a furnace of air. Wood stoves and fireplaces, for example, can consume five to 10 times as much air as a furnace. Clothes dryers, kitchen, bathroom and attic vent fans, central vacuum cleaners and kitchen barbecues which exhaust air from the home can starve the furnace or the fireplace of oxygen and can create a vacuum inside the home. Oxygen starvation of a gas furnace, for example, can lead to incomplete burning of gas and formation of carbon monoxide gas. The vacuum can result in backing up of waste gases such as carbon monoxide in to the home. Under these conditions, air may be drawn back down the furnace chimney along with dangerous exhaust fumes.

- As a precaution, do not run appliances that compete or create a vacuum for prolonged periods of time.
- Have space and water heating equipment inspected regularly by a qualified technician.

Between inspections

- Do a visual inspection of the equipment to look for signs of equipment problems, such as soot on a fireplace face, water collecting near a burner or rusted venting.
- Periodically check vent pipes between gas appliances and the chimney for corrosion or rust.
- Equipment that uses natural gas should show a clear blue flame—a yellow or orange flame may indicate a problem. If a problem appears, call a qualified technician.
- Ensure a window is open when operating a wood-burning fireplace.

Carbon monoxide detectors

The installation of carbon monoxide detectors in your home is the **second line** of carbon monoxide prevention. A carbon monoxide detector should never be substituted for the safe use of combustion equipment and the regular inspection of heating and cooking equipment by a qualified technician.

A carbon monoxide detector is designed to sense the presence of carbon monoxide in the air. When a unit's sensor is exposed to a certain level of carbon monoxide for a particular period of time, the detector's alarm is triggered. There are a variety of carbon monoxide detectors available on the market. Before you purchase a unit for your home, read and understand the manufacturer's instructions. The carbon monoxide detector you purchase should be ULC and CSA Certified for use in Canada.

NOTE: Carbon monoxide detectors do not replace the need for prevention through yearly maintenance and inspection of heating systems and appliances.

Keep warm, keep safe: Home heating the safe way

Living through bitterly cold Alberta winters means living with home heating. Furnaces, space heaters and the like are often a home necessity. With these heating devices, however, comes the possibility of fire.

Space heaters, central heating furnaces, fireplaces, water heaters and chimneys can be potential hazards if they are not designed, installed, used or maintained with proper care.

Space heater safety

A large number of space heater fires occur in bedrooms and living rooms when combustibles such as clothing, bedding, drapes, furniture and paper are placed too close to the heat source.

Quite often, space heater fires occur in the evening and involve bedding materials. A sleeping child may have kicked the covers off the bed and over the heater. Or, perhaps wet clothing has been placed over or too near the appliance to dry.

Other common fire scenarios with portable space heaters involve overloaded wiring, damaged or frayed wires and use of extension cords that do not have the capacity to carry the electrical energy drawn by a heater.

Safety tips for space heaters

- When purchasing a space heater, check for a testing laboratory label such as the Underwriters' Laboratories of Canada (ULC) or Canadian Standards Association (CSA).
- When installing stationary space heaters, follow manufacturer's instructions and make sure it meets fire and building code requirements.
- Maintain adequate clearance in all directions around space heaters and heating stoves. **One metre (three feet) is the minimum distance.** Areas surrounding space heaters should not become too hot to touch.
- Inspect the cords on electric heaters. If the cord is frayed or splitting, or if it overheats when the heater is in operation, you have a fire hazard!

- With fuel-burning space heaters, always maintain proper ventilation to the outside of the building to release deadly fumes. This will also keep the unit from depleting oxygen and creating a suffocating condition in the room.
- Inspect heaters regularly; a dirty or neglected heater is a critical fire hazard.
- Use a screen around stoves or space heaters which have open flames.
- Use only the proper fuel for each heater; do not use any other fuel.
- Never accelerate a fire with kerosene or gasoline.
- When refuelling heaters, avoid overfilling them - when the unit warms up, the fuel may cause burner-flooding which could cause flare-ups.
- Do not fill a heater while it is burning or when it is hot. Refuel only when the heater is cool to the touch.
- Keep young children away from space heaters. Warn them about the burn hazards and fire danger.

Safety tips for gas space heaters:

- A gas space heater must be properly vented. This means it must have a properly sized vent pipe that is free of leaks and blockages. Joints must be tight and both the heat exchanger and the vent pipe must have no cracks through which carbon monoxide might leak. An undersized or clogged vent is equally hazardous. If you are not absolutely certain that your heater and vent are in good condition, have them checked by your gas supplier or a qualified service person.
- When you use an unvented heater, keep a door or window slightly open in the room in which the unit is operating. Good ventilation during use is crucial!
- Light the match before you turn on the gas to the pilot to avoid the possibility of a flare up which could occur if you allow gas to accumulate before you bring the match near.
- A space heater can ignite flammable liquids and vapours. Never use a space heater in the same room where gasoline is stored, or where paint thinners or other volatile liquids are being used.
- Ensure the gas appliance has the approval of the Canadian Gas Association or another testing agency.

Safety tips for kerosene and oil- and wood-burning space heaters:

- Improper installation or maintenance of wood stoves causes many fires. Follow manufacturer's directions carefully and have your stove inspected by a local fire safety official. Clean your chimney regularly.
- Use only the fuel for which the heater was designed. Most kerosene heaters require a pure grade of kerosene. Never use gasoline, and never burn coal in a stove designed only for wood.
- Never use flammable or combustible liquids such as gasoline or kerosene to get a wood stove started; use only paper or kindling.
- Keep furnishings and small children away from open flames and hot surfaces.
- Use only approved portable kerosene heaters, those complying with the Canadian Standards Association (CSA) and tested by an accredited lab: CSA, Underwriters' Laboratories of Canada (ULC) or Warnock Hersey Professional Services Ltd.
- Do not fill oil heaters indoors or carry them when lit.

Safety tips for coal heaters

- Coal gas is an ever-present danger with coal. Careful stoking of the furnace is essential.
- When banking a coal fire, always leave red coals showing in order to burn off dangerous coal gas.
- Make sure your coal fire has a good draft and proper ventilation in order to get complete combustion; incomplete combustion will create dangerous carbon monoxide gas.
- Be sure a coal stove is installed at least one metre (three feet) away from the wall.
- Place an approved stove board under the unit to protect the floor from heat and hot coals which might drop out.

Fireplace safety

Fireplace fires can get out of hand when accumulated tar or creosote catches fire or from uncontrolled burning or over fuelling. Other causes of fireplace-related fires are substandard design or installation and lack of safety precautions.

Safety tips for a safer fire:

- Open the damper before lighting the fire, and keep it open until the ashes are cool enough to touch.
- Make sure the fire is completely out before going to bed or leaving the house.
- Do not store combustible materials such as paper or wood too close to the fireplace.
- Use a screen in front of the fireplace opening to protect children and to prevent embers from escaping and igniting carpets, etc.
- Never leave children alone near a fireplace.
- Use dry, well-seasoned wood in small amounts.
- Have chimneys cleaned and serviced at regular intervals by a professional.
- Never overload your fireplace.
- Never use charcoal starter fluids, gasoline or any flammable substance to start fires.
- When using artificial logs, burn only one at a time and follow instructions on the wrapping.
- Always place the ashes in a metal container and take them outside the house.

Tips for wood stove safety:

- Check the local building code and have your installation checked by your fire/building inspector. A wood stove should have a separate flue pipe.
- Check-clearance from combustibles, walls and ceilings. It should be at least one metre (three feet) away.
- Empty ashes regularly; store them in covered metal containers outside.
- Never use gasoline or kerosene to start a fire -- it could cause an explosion.
- Burn only well-seasoned dry wood to avoid excess creosote build-up.
- Inspect and clean the whole system - stove, flue pipes, etc. - each year, at the beginning of the heating season. Check stovepipes and chimneys regularly during heating season and clean them when necessary.
- Have a heat-resistant pad (or brick or stone hearth) under stove. It should extend at least half a metre (18 inches) in all directions.

Annual safety check for chimneys

- Have fireplace chimneys cleaned and serviced annually by a professional to remove creosote build-up.

Preventing furnace and water heater fires

Common causes of fires related to furnaces and water heaters include placing combustibles too close to a furnace or a water heater, installing the appliances too close to combustible materials, mechanical or electrical malfunction, using flammable liquids in the vicinity of the heating equipment or allowing vapours to drift toward a burning pilot light.

Safety checklist:

- If you smell gas, don't turn any electrical switches on or off because a spark could ignite the gas. Open all the windows and doors, and call the gas company immediately and have the gas shut off. Then notify the local fire department of your situation.
- Do not use flammable liquids such as gasoline or paint thinners near furnaces or water heaters. The vapours can travel through the air and reach the pilot flame and ignite or explode. Using gasoline to clean metal parts or clothing in basements, where furnaces and water heaters are also located, has resulted in many tragic fires in Alberta homes.
- Keep the area around the furnace and water heater clear of combustibles to avoid a serious fire. Heat from this equipment can ignite furniture, trash, paper, cardboard or clothing.
- Have your furnace checked yearly by a qualified professional.
- Make sure any necessary repairs are made promptly.
- If pilot light on a gas furnace goes out, have a qualified professional re-light it.

Be cautious with candles!

It is important to remember that a candle flame is a small fire that can very easily start a large, dangerous fire. Here are some findings related to candle fires in Alberta homes:

- With the use of candles increasing during the winter season, candle-related fires are at their highest during this time.
- Most candle fires happen in bedrooms and living/family rooms, and ignite bedding or furniture.
- Failing to put out a burning candle before going to bed accounts for the majority of deaths and injuries in candle-related fires.
- Most candle fires involve human error, such as leaving a candle unattended or leaving a candle near combustible materials (e.g., curtains, furniture, decorations).
- Unsupervised children may play with candles because they are curious and are fascinated by the flame.
- Consumers assume that their candleholders are safe, and don't expect the candles to tip over or the holders to break or catch fire - yet they can.

How can candles be used safely?

- **Never leave burning candles unattended. Put candles out if the flame becomes unusually large. Never let candles burn down to the bottom.**
- Avoid using candles whenever possible, and if candles are used, keep flammable and combustible materials as far from the flame as possible.
- Imagine the various scenarios of how a candle flame could start a dangerous fire in your home. For example: *"Someone may open this window and the curtain blowing in the wind could come in contact with the flame and catch fire. It is not wise for me to place this candle near the window."* Take action to prevent such scenarios from happening.
- Mount candles on non-combustible holders that won't tip over and are big enough to collect dripping wax.
- Do not place lit candles in windows where blinds or curtains may close over them, and don't use them in places where children or pets could knock them over.
- Snuff candles out when leaving the room or going to sleep. Remember that 70 per cent of fire deaths related to candle fires happened because people were asleep at the time of the fire.
- Never leave children or pets alone in a room with lit candles. Pets or children can play with the flame and start a fire or be burned. Do not allow older children to light candles in their bedroom. A forgotten candle is all it takes to start a fire.
- Exercise caution when using candles as a source of light during power outages. Many destructive fires start during such times as potential fire hazards can go unnoticed in the dark.
- Never use a candle for light when fuelling equipment such as a camp-fuel heater lantern.
- When buying or using novelty candles, try to determine if they pose a potential fire threat. If they do, or you suspect they might, inform your local fire department or the Product Safety Programme of Health Canada in Edmonton or Calgary.

Careful cooking

Most destructive home fires start in the kitchen. These tips can help you to prevent kitchen fires:

- Use a temperature-controlled deep fat fryer for frying. If you are using a pot, keep a proper-fitting lid nearby. If a grease fire starts, carefully cover the pan with the lid to smother the flames.
- Never leave frying food or cooking oil unattended on a hot stove.
- Keep paper, curtains, dishcloths, paper towels, potholders, cardboard containers and plastics well away from heat sources.
- Wear short and tight-fitting sleeves when cooking. Loose sleeves can catch fire over the hot stove.
- Avoid cooking when you are sleepy or drowsy from medication or alcohol.
- Turn pot handles in to prevent children from pulling them down.
- Do not use defective electric appliances; have them checked and serviced.
- Keep the hood, filter, fan and duct above the stove clean. Grease build-up is a fire hazard.
- Keep a fire extinguisher within easy reach. Contact your fire department for advice on selection and operation of an extinguisher.

Putting out a cooking-oil fire

- **Never throw water onto a cooking-oil fire.** This will cause the fire to flare and spread.
- Always keep a lid nearby that fits the frying pan or pot. If overheated oil ignites turn off the heat and exhaust fan, then put the lid on the pot or pan to smother the flames.
- Never try to carry a pan of burning oil outside. The oil may splash over the edge and start new fires, or cause serious burns.
- Do not pour burning oil into the sink.
- If the fire cannot be put out with a lid, get everyone outside and call the fire department from a neighbour's phone.
- An ABC rated extinguisher (suitable for flammable liquids and electrical equipment fires) may be used for small fires. If the fire gets worse, get out!

Putting out an oven fire

- Turn off the heat.
- Close the oven door and keep it closed.
- If necessary, use a fire extinguisher.

Preventing arson

Arson is a serious crime. It injures and kills people, destroys property and destabilizes neighbourhoods. There are many different motives for arson. For example, a home may be set on fire to cover criminal activity or to make fraudulent insurance claims, because of a domestic dispute, family arguments, or for revenge. Here are a few simple measures to help prevent arson and the threat of arson.

In and around your home

The best defence against arson – and burglary – is to have effective security. It doesn't have to be expensive. A few simple measures can reduce the risk of arson attack on a home:

- Be alert to strangers in the neighbourhood. If you see unusual behaviour, call the police.
- Ensure that there is no combustible material or trash lying around for an arsonist.
- Flammable/dangerous liquids should always be kept safely under lock and key.
- Make sure all waste/trash/garbage bins/combustible materials are kept a safe distance from any buildings (ideally 8 metres).
- Make sure there is a strong front door and that it is fitted with strong locks and a chain.
- Close all windows when the house or garage is unoccupied – even small windows can allow a person to enter.
- Consider security lighting; it can be a good deterrent. Intruders like to work in the dark.
- Burglar alarms deter intruders from entering your property.
- Never leave spare keys hidden under the doormat or elsewhere.
- Keep all outbuildings/sheds/garages locked to prevent access from intruders.
- Install and maintain smoke alarms in working condition. A smoke alarm will not stop an arson attack but will provide valuable extra time to escape.

Your car

- Ensure that you lock the doors and close the windows/sunroof to prevent anyone gaining access (even when your car is in your driveway). Stolen vehicles may be set on fire.
- Park in a well-lit area and if possible a public place.
- Purchase additional security, for example a steering wheel lock.
- Do not leave any items on the seats in view of possible thieves.
- Report abandoned vehicles to the police.

Your community

- Start a "Neighbourhood Watch" program in your neighbourhood.
- Work with your neighbours to become vigilant to strangers/groups of people or any unusual behaviour in the neighbourhood. If in doubt call the police.
- Report any criminal activity, in confidence and anonymously, to Crime Stoppers.
- Monitor buildings that are under construction, run-down or are vacant.
- Share knowledge and raise awareness within your community.
- Take pride in your community and surroundings.
- Co-operate fully with fire investigators and law enforcement officials to bring arsonists and vandals to justice.

Protecting children from fire

It is normal for children, even as young as two years old, to be curious about fire. Guiding children to fire-safe behaviour is the responsibility of parents and caregivers.

Fireplay happens when a child, curious and unsupervised, plays with matches, a lighter, an open flame or a hot stove. This curiosity can lead to a fire that may result in death, injury and property damage.

Fires started by children in the home usually happen in a bedroom, followed by the living room, closet and kitchen. If your child or a child you know is curious about fire, there are three steps to prevent a fire tragedy:

Step 1: Prevent children from starting fires

- Keep matches and lighters out of sight and reach. Even toddlers are known to have started fires with lighters.
- Never leave a hot stove, space heater or lit candle unattended.
- Reward the child for bringing any matches or lighters they find to an adult.
- Never leave children unsupervised at home - not even to run a quick errand.

Step 2: Teach children about fire

- Teach children that fire is not a toy; it is a tool we use to cook food and heat our homes.
- Educate your children about the dangers of fire and make sure they know that all fires, even small ones, can spread very quickly.
- Provide opportunities for school-aged children to understand the safe use of fire, such as lighting birthday candles, under your supervision.
- Teach your child how to say no when friends suggest playing with fire.

Step 3: Set a good example

- Emphasize the fire and bum safety rules you follow when using fire.
- With your children, regularly inspect your home for fire hazards.
- Install and maintain smoke alarms.
- Plan and practice home fire escape drills.

Plan your escape

In as little as three minutes, a small fire can lead to a flashover. Flashovers happen when the contents of a room get so hot everything bursts into flames. When fires start indoors, smoke has no way out. It hangs from the ceiling like a choking blanket, thick and dark. A small fire can produce enough smoke to fill a house in minutes. In addition to reducing visibility, smoke contains toxic gases that can numb your senses and leave you dazed.

To get you and your family out quickly and safely, you need to have planned and practiced your fire escape routes. Doing so could save your life!

Smoke alarms

A smoke alarm's early warning of smoke/fire danger can buy precious time in a fire.

- Install at least one smoke alarm on each level of your home.
- Place them between sleeping rooms and other living areas. It's during sleeping hours that most people die in fires.
- Test smoke alarms monthly to ensure they work. Replace batteries once a year.

Your fire safety plan

- Identify two exits from **each** room, particularly bedrooms. Planning two escape routes could save your life if one exit is blocked by smoke or fire.
- Involve the whole household in drawing a simple map of your home and marking exactly how to get out in an emergency.
- Make special plans for very young children, older people or people with disabilities living in your home. Decide who will be responsible for helping them escape in an emergency.
- Hold a fire drill at least once a year. Think of what you may encounter if a fire occurs and prepare for it:
 - **Pretend there's smoke in the room.** In a real fire, the air closest to the floor will be fresher, cooler and easier to see through. Stay low!
 - **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 windowsill 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 hold back toxic smoke and flames in an emergency and could give you a few life-saving seconds to escape.
 - **Don't go back.** Decide on a meeting place outside so everyone can be accounted for. Designate one person to find a phone away from home, and call the fire department. Don't go back in the house until the fire department says it's okay to.
 - **Never take an elevator.** It could take you directly to the fire! Use exit stairs instead.
 - **If you are trapped, protect yourself until help arrives.** Close the doors between you and the smoke and stuff air vents and cracks with blankets, towels or clothing. Then, carefully open a window to signal for help and let in some fresh air.

Be smart with smoke alarms

Smoke alarms save lives...but only if they are installed and are in working order.

Installing smoke alarms

Install at least one smoke alarm on every level of your home, including the basement. Make sure there is an alarm in or near every sleeping area. Follow manufacturer's instructions on installation and maintenance.

Keep smoke alarms working properly

- Replace the batteries in your smoke alarms once a year, or as soon as the alarm "chirps," warning that the battery is low. **Helpful hint:** schedule battery replacements for the same day you change your clock from daylight to standard time in the fall.
- Regular vacuuming or dusting of your smoke alarm can help keep it working properly. Follow the manufacturer's instructions for cleaning.
- Replace your smoke alarms once every 10 years.
- Never "borrow" a battery from a smoke alarm for another appliance.
- Make sure everyone in your home can hear and recognize the sound of the alarm and knows how to react immediately.
- When testing your alarm you are checking two things: you want to ensure that power is being transmitted to the alarm, and that it will activate in the presence of smoke.
- Even the types of alarms that have a pilot light to indicate power is being transmitted should be tested regularly.
- When you've been away from home for a few days, check your alarm when you return to make sure it is functioning.

How to test your alarm

- Test your smoke alarms monthly with smoke. Models that have a test button also need to be tested monthly with smoke because the test button may only tell you that the buzzer works, and not necessarily that the smoke-sensing mechanism is functioning.
 - Drift smoke from a just-extinguished candle.
 - Alarm should sound within 20 seconds.
 - Fan smoke away to silence alarm.

If your alarm does not sound:

Possible Causes	Action
battery dead	replace battery immediately
no electricity	check fuse box/breaker panel or contact an electrician
smoke alarm dead	replace immediately

Sensible smoking

Falling asleep while smoking, discarding smouldering butts, using inadequate ashtrays, and smoking near flammable liquids are all hazardous activities.

In Alberta homes, most smoking-related fires start in the living room, family room, den or bedroom. Many of these fires are started by someone falling asleep in bed or on upholstered furniture such as a sofa while smoking. Quite often, the fire victim is also impaired by alcohol, drugs or medication and this prevents them from awakening before they suffer fatal smoke inhalation or burns.

Safety tips for smokers

- Never smoke in bed, or when drowsy from medication or intoxication. A lit cigarette that falls on a pillow, bedding or couch can start a KILLER fire.
- After a party, check for fallen cigarette butts on sofas and behind cushions. Make sure they have not burned through the fabric as they could smoulder and later erupt into a deadly fire.
- Keep matches and lighters away from children.
- Flush cigarette butts and ashes down the toilet. Do not dispose of them in a trashcan.
- Never smoke while handling flammable liquids such as gasoline.
- Remember ALL matches, lighters, cigarettes, pipes and cigars are potentially dangerous. Treat them with caution.
- Periodically check the elderly and/or persons with disabilities who smoke and may be less able to save themselves in the event of a fire.

Remember: Fire prevention efforts must not only educate smokers, but their friends and families as well. Everyone must be aware of the dangers of careless smoking. Only then can we reduce the number of injuries and deaths caused by smoking-related fires.

Flammable liquids—the danger is in the vapours!

Most of us handle flammable liquids every day - gasoline, paint thinners, lighter fluid, paints and aerosols - without giving thought to the danger involved. Even such common household products as contact cement and nail-polish removers release flammable vapours, but we seldom think about the fire hazard involved in their use. However, newspapers regularly carry stories of unfortunate victims who failed to exercise proper caution in handling flammable liquids.

Knowing how flammable liquids catch fire and the correct way to handle, use and store them can keep fire tragedies from happening in your home.

The danger is in the vapours!

- Flammable liquids give off vapours continuously. We can smell gasoline or nail polish/remover because of the vapours.
- Flammable vapours travel through air near the ground level. At the right concentration they will catch fire instantly if they come in contact with a spark or flame (static electricity, spark inside an electric switch, a pilot light in a water heater or furnace or any open flame).
- Once ignited, the flames “flashback”. This means the flames travel back, through the vapour-air mixture, to the container or source of the flammable liquid creating a further fire danger. In a closed space, an explosion may result.

How to handle and store flammable liquids

- Never use a flammable liquid near a flame or source of spark. Be aware of hidden sources like water heater pilot lights, electric motors or heaters. Never smoke while pouring or using flammable liquids.
- Do not use gasoline as a cleaning fluid for clothing, metal parts or anything else. Use it only as a fuel in equipment that is designed to hold gasoline.
- Never refuel things like motorbikes, lawn mowers or snow blowers while they are operating or hot. After fuelling and before restarting, move the equipment away from the area where you fuelled up - vapour will still be present.
- Always pour flammable liquids using a funnel and in a well-ventilated space, away from fire or sparks.
- Never use gasoline to start a fire.
- Never store gasoline in the house. Store in an approved safety can away from your house or apartment in a cool, ventilated shed. Ensure safety cans are those approved by ULC or CSA, and have proper labels, such as Danger! Gasoline! Explosive!
- Never store or transport gasoline in plastic jugs or glass bottles or other unsuitable containers.
- When transporting gasoline from the service station to your home for immediate use, use a safety can and fill it only half or three-fourths full. Most experts recommend carrying the container in your trunk—preferably with the trunk lid partially open to vent fumes—to and from the nearest gas station. Storing gasoline in the trunk is still dangerous. Even at temperatures below zero, a single spark from the tail-light can ignite the vapours. **Never** store gasoline in the passenger compartment of your car or truck.

Fires in dryers—they can happen

“Clean the lint filter and never leave home while your dryer is running,” advises the Alberta Emergency Management Agency when it comes to preventing fires in clothes dryers.

As the cool Alberta weather prompts people to don their thicker, fuzzier winter clothes, we must remember that clothing, and the lint it leaves behind, can catch fire in clothes dryers.

Lack of maintenance was the number one cause of dryer fires. Other specific leading causes were part failure, leaks and breaks, short circuits or ground faults, and combustible materials too close to the dryer. Clothing was the item first ignited in one-third of dryer fires. Dust, fibre and lint were first ignited in more than one-quarter of the incidents.

To avoid such fires, follow these safety tips:

- Clean the lint filter before or after each use and wipe away any lint that has accumulated around the drum.
- Make sure the dryer is plugged into an outlet suitable for its electrical needs.
- Do not run the dryer without a lint filter.
- Do not leave the dryer running if you go out, in case it malfunctions.
- Make sure the air exhaust vent pipe is unobstructed and the outdoor vent flap opens readily.
- Keep combustible material, such as boxes and clothing, away from the dryer.
- Have your dryer installed and serviced by a professional. Gas dryers should be inspected periodically by a professional to make sure the gas line and connection are intact and leak-free.
- Never launder clothes soaked in flammable liquids, such as gasoline, in a washing machine or dry them in a clothes dryer. Vapours will catch fire and/or explode causing serious personal injury and property damage.

Safety tips in brief...

A closed door can save your life in a fire

Did you know that in addition to giving you privacy and security, a closed door can also save your life? A closed door will help slow the spread of deadly fire, smoke and heat. This is why fire officials recommend sleeping with your bedroom doors **CLOSED** at night.

- When following your escape route, be sure to close doors behind you. This will help slow the spread of smoke and fire to the entire building.
- When escaping a fire, open doors only if they feel cool to the touch and open them just a crack to check for smoke. If there is none, leave by your planned escaped route. Remember to crawl low and keep your head down. Cleaner air is nearer to the ground.
- If a door feels hot when you touch it, **do not open it**. Do not panic. Escape out the window or use your alternate exit.
- If you can't leave your room or apartment, seal cracks around doors and vents as best you can, using wet towels if possible. Open a window partially to allow fresh air in, if necessary. Stay low by the window to breathe the fresh air. If there is a phone nearby, call the fire department (even if it has already been called or they are at the scene) and tell them exactly where you are in the building. Shout for help and signal your position by waving a bright cloth, towel or sheet.

Fire doors are meant to be kept closed!

- Fire doors are specially manufactured doors with fire resistant characteristics. They are normally installed with automatic closing devices in multiple residence buildings such as apartment complexes.
- A closed fire door will prevent a fire from burning through it for a specified time. Such fire doors are said to be "rated." Usual ratings of doors, frames and hardware are from three-quarters of an hour to three hours.
- A fire door will prevent spread of smoke and fire from the area of fire origin to other compartments in the building. This enables occupants to safely escape a fire.
- To ensure fire doors perform their function:
 - Keep them closed at all times.
 - Do not wedge doors to keep them open, or their essential function will be defeated.
 - During a fire emergency, close the fire doors and any other doors behind you as you escape. A closed door will delay fire and smoke spread.

Extension cords can cause fires!

- Extension cords are a common cause of electrical fires.
- You must be careful to use only extension cords that are rated for the power used by the device they are powering.
- Extension cords should never be used as a long-term solution to the need for another receptacle.
- Extension cords must never be run inside walls or under rugs or furniture. They can be damaged by traffic or heavy furniture and start arcing, which can lead to a fire.
- Extension cords can get warm during use and must be able to dissipate this heat or they can start a fire.

Electrical problems can lead to fires

Electricity is a great convenience in our lives, but we need to remember that if the electrical energy carried in wires and appliances is allowed to escape it can appear as electric sparks or arcs. 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.

Heat energy from electric sparks, arcing in frayed cords, overloaded circuits, faulty electrical appliances and incorrectly installed wiring can all lead to fires with dangerous consequences. It is important to install, use and maintain electrical wiring and appliances properly. The insulation on electrical cords can become damaged by wear, flexing, or age. Do not use any cord that is stiff or cracked.

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 is overloaded or has a loose connection.
- **Sparks.** If sparks appear when you insert or remove a plug, it could be a sign of loose connections.
- **Warm electrical cord.** If an electrical cord is warm to the touch, the cord is underrated or defective.
- **Frequent blown fuses or broken circuits.** A fuse or circuit breaker that keeps tripping is an important warning sign of problems.
- **Frequent bulb burnout.** A light bulb that burns out frequently is a sign that the bulb is too high a wattage for the fixture.

When buying electrical appliances, look for products that meet the Underwriter's Laboratory (ULC) standard for safety.

Routinely check your electrical appliances and wiring. Replace or repair electrical appliances that overheat, spark, short-out, smoke, or have cracked or frayed cords. Unplug space heaters, irons, hair dryers, curling irons, electric blankets, toasters and other appliances when not in use.

Could the fire department quickly find your house?

Every second counts in an emergency and your home may be difficult to find because the house number is hard to see.

Please:

- Check to see whether you can easily read your house number from the street.
- Make sure the numbers are big enough and visible at night under outdoor lighting.
- Make sure your house numbers contrast with the background.
- Be certain that bushes and trees don't block the view.