

FIRE SAFETY

Courtesy of FOCA

Fire Safety is not an afterthought. It should always be top of mind. Fire Safety should be learned and discussed. It should be taught to our children and reinforced. Fire Safety should be planned, and practiced. Fire Safety should be a way of life at home, at the cottage, and everywhere. There are many 'common sense' things you can do to prevent fire, safeguard lives and property, and mitigate damage. The following recommendations are the most relevant for the cottage environment, but are only a portion of a comprehensive Fire Safety strategy for your family and guests. Feel free to add to these as you see fit.

Smoke Alarms

Ontario Law states that **you must have at least one working smoke alarm on each floor of a house (or cottage) and located near sleeping areas**. This would include all outbuildings used for sleeping or habitation, including bunkies. Multiple alarms are better. Failure to comply with the Fire Code smoke alarm requirements could result in a ticket for \$360 or upon conviction, a fine of up to \$50,000 for individuals and \$100,000 for corporations. **It could also be a matter of life or death.**

The two primary types of smoke alarms are the "Ionization" type of detector (this type more quickly registers open flames or fast moving fires) and the "Photoelectric" (this type more quickly detects smoke or smouldering fires). You can buy alarms that incorporate both of these detection types into one unit or you can buy them individually and install both types into your home. You can also buy alarms that incorporate both smoke detectors and carbon monoxide detectors (see next section) into one unit. Alarms installed into new builds are usually hard-wired into the electrical system. If you have this type and live in an area prone to power failures (like at the cottage), make sure they have a battery backup or buy separate battery operated units to supplement the hard wired type. Do your research and buy the type that suits your situation the best. To reduce the risk of a defective alarm, install a minimum of 2 alarms in every building. If one fails, you have a backup.

Smoke alarms should be tested at least monthly. Vacuum any dust buildup on the alarm. Keep the area clear around the alarm. Do not paint a smoke alarm. Full time residents should change their smoke alarm batteries when they change their clocks for daylight savings time. Seasonal cottagers should change their batteries the day they arrive at their cottage in the spring. If you should never remove your alarm batteries because of a nuisance alarm such as burnt toast, don't hide the batteries on a shelf. Instead put them in an obvious place so there is no way that you can forget to put them back. If this happens often, move the smoke alarm or purchase an alarm with a temporary silencing button. These are not expensive and readily available. Sometimes older units become overly sensitive when dust gathers inside the alarm. If you are having problems with your alarm, replace it. They are not expensive.

Check the manufacturing date or expiry date and replace any units past the recommended lifespan. Most smoke alarms require replacement after 10 years. Old alarms can be disposed of in regular municipal garbage (not recycling).

Carbon Monoxide Detectors

Ontario law requires a CO detector in all homes that have appliances that generate carbon monoxide (CO), or have an attached garage or carport. The National Fire Protection Association recommends at least one CO detector on each floor of your home.

Carbon monoxide is an odourless, tasteless and colourless gas that is undetectable by human senses, and it can be deadly. It is created by the burning of fossil fuels, including oil, gas or propane appliances like stoves, furnaces, portable heaters, generators, fireplaces, water heaters or barbeques, wood burning appliances like fireplaces and wood stoves, or charcoal burning barbeques. Carbon monoxide is also created by your vehicle (or gas powered ATV, lawn mower, gas trimmer, chainsaw, snowmobile, etc.), which is why a CO detector is required in your home or cottage if you have an attached garage, even if you have none of the other appliances mentioned above.

Early symptoms of CO poisoning such as headaches, nausea and fatigue are often mistaken for the flu and the gas goes undetected in the home. Prolonged exposure to CO can lead to brain damage and even death. Carbon Monoxide is the leading cause of accidental poisoning deaths in North America. Everyone should be educated and made aware of the dangers.

Some additional information about carbon monoxide detectors:

- The penalty for not having operational CO alarms is the same as for smoke detectors (see above).
- CO detectors are either battery powered, plug-in (120V wall outlet) or hard-wired to your electrical system. If you have a plug-in or hard-wired model, make sure it has a battery backup to continue protection during power outages. Check or change these batteries as necessary when you change your smoke alarm batteries (every Spring or Fall).
- The Life Span (rated by CSA) of CO detectors ranges from 5 to 10 years. Check the documentation with your detectors and make sure you replace outdated units. Like smoke detectors, CO detectors do not last forever. Also, as technology changes, these devices will improve in performance.
- Follow the package instructions for your CO detector to determine the best placement within the building.
- In addition to checking the batteries, inspect or replace the CO detectors in both your home and cottage at least monthly, and install additional units if and where necessary.

Alarms With Voice Alert

As technology improves and further research is conducted, science develops better ways to keep us safe. New alarms with the sound of a human voice have been found in some research to be more effective at waking children than the standard high pitch tone of conventional alarms. These voice alert alarms were developed after some forensic scientists and fire investigators warned that smoke alarms may not wake children. Alarm manufacturers Kidde and First Alert both make Smoke and Carbon Monoxide detectors with talking alerts. They are available at most big box stores, or can be ordered in.

Fire Extinguishers

Currently, Fire Extinguishers are not yet required by law in Ontario in private residences, but it is prudent to have at least two on hand. They come in different sizes and chemical formulations, but by far the most common for residential applications is the dry-powder chemical type.

There are 3 primary categories of fires that the powder in the fire extinguishers are designed to extinguish.

- Class A – Combustible materials such as paper, wood, fabric, refuse
- Class B – Flammable liquids and gases (oil, gasoline, propane, etc.)
- Class C – Electrical – Note that electricity does not burn, however if the fire is electrically energized (i.e. an electrical short ignites a combustible material), electrocution could occur if the fire is fought with water. If the power is turned off, the fire can then be fought as a Class A or B.

Choose a fire extinguisher which is rated for all 3 classes. Typical sizes for the home range from a “1A, 5B, C” for a 2 lb. model up to “2A, 10B, C” for about a 7 lb. model. The numbers in front of each letter correspond to the amount of dry chemical compound for that type of fire. Larger extinguishers are available but may be too heavy for some adults or children to operate. A couple of smaller extinguishers will work just as well as one large one.

It is recommended to have at least 2 fire extinguishers in the home. The best place to locate them is near the kitchen, and at an exit to the home, making it readily accessible when exiting or entering the structure. It is best to have several fire extinguishers, with locations including:

Kitchen	Near Bedrooms	Basement (especially if only one way in or out)
At Exits	Workshop or Shed	Garage
Bunkie	Car	Boat ** (see note below)

******Note that any motorized boat with a fixed fuel tank (permanently attached to the boat) up to 6 m (19’8”) must have as a minimum, one 5BC fire extinguisher. Also, ANY motorized boat between 6 m and 9 m (19’8” to 29’6”) must have as a minimum, one 5BC fire extinguisher. For further information, refer to the Minimum Safety Equipment Requirements chart in the “Boating” section.

Familiarize yourself with the operation of your fire extinguishers and memorize the “PASS” procedure:

- **P** – Pull the pin
- **A** – Aim at the base of the flames
- **S** – Squeeze the handle to eject the chemical
- **S** – Use a sweeping motion back and forth centering on the base of the flames

Fire extinguishers work well for putting out small fires (before they spread), but for larger fires you will need to exit the building and call for more assistance (**911**).

FIRE SAFETY PLANNING

It’s never too early to talk to your family and friends who visit the cottage about fire safety and what to do in the event of a fire. Every cottage should have a “Fire Safety Plan” in the event of the unthinkable happening. Know all the exits that can be used for escape. Have a designated meeting place for everyone to go to when they exit the building. Rehearse the exit procedure with your children. Have a cell phone available to call 911 in case the land line is inaccessible or

not working. Remember to have the “Emergency Numbers” information sheet posted in a high-visibility area beside your cottage phone.

Elements of a good Fire Safety Plan include:

- If a fire is detected indoors, exit the building immediately and close the door behind you. This may slow the spread of the fire by reducing the flow of fresh air. If you are in a room with a closed door, feel the door with the back of your hand to see if it is hot. If it is hot, don't open it.
- Every room should have 2 exit options. If access to an exit door is blocked by fire, you may be able to exit through a window, depending on the height off the ground. Collapsible emergency Fire Escape ladders are manufactured by companies like Kidde and available in stores like Canadian Tire and Home Depot for about \$70. They are hung over the sill of an open window (after you push out the screen) and unfold about 13 feet so they work well up to a second storey window. In the event a ladder is not available, if you are able to go out feet first and hang from the sill by your hands, you can reduce the height of your fall by several feet.
- Have a designated location, outside of the cottage, where your whole family will meet after escaping from the fire. This will help you ensure that everyone got out and prevent unnecessary searching.
- Call 911 as early as it is safely practical to do, so help will be on the way to extinguish the fire.
- Review your Fire Safety Plan regularly with all of the family. Things like checking doors for heat and using a window to exit may be obvious to an adult, but this should be covered in your plan with young children. A child's first instinct is to hide from danger, which could mean hiding under a bed when there is a fire. Prior discussion of what to do in the event of a fire can make the difference in a critical situation.

The key is to cover all aspects of your fire safety plan before there is a fire. Smoke detectors and Carbon Monoxide detectors are a great start, but things like the proper location and use of Fire Extinguishers and Safety Ladders, meeting locations, etc., must be planned for early, reviewed frequently, and updated as necessary.

Storing Flammable Materials

Flammable materials such as gasoline, kerosene, propane tanks, oils, lighter fluid, paint thinner, etc., should never be stored in the cottage or any attached garages or storage rooms. These items must be kept in a separate shed or building located away from the cottage.

Don't store lumber underneath your cottage. Not only does it provide a home for unwanted animals, it can also provide fuel for a cottage fire and make it harder for the fire to be extinguished.

Get more information here: <https://www.firesmartcanada.ca/>

Preventing Chimney Fires

As more of us are enjoying our cottages in the winter as well as the summer, the possibility of a chimney fire is increased. Some chimney fires may burn themselves out quickly, but others could burn down a cottage. Chimney fires should definitely be taken very seriously.

The best way to avoid a chimney fire is by taking steps to prevent circumstances that could cause one to start. A chimney fire starts when super-heated gases from your wood stove or fireplace ignite creosote which builds up on the walls of your chimney. Creosote is black or brown in color and is crusty or tar-like in appearance.

There are a number of things you can do to prevent a chimney fire:

- Burn hard wood, such as maple, birch, oak, elm, or hickory. Evergreens, such as hemlock, spruce, and pine, have resins in them that cause a lot of creosote build-up when they are burned slowly.
- Don't burn green wood. Dry (seasoned) wood will produce much less creosote than greener wood.
- Keep your fire hot (above 225 degrees Fahrenheit if you have a chimney thermometer). A colder or smoldering fire allows resins to condense and cause creosote. If you are keeping a wood stove burning all day, burn a hot fire (at least 500 degrees F) a couple of times a day. This will help to burn off the small amount of daily accumulation of creosote.
- Make sure your chimney is properly constructed for the size of your stove or fireplace. A chimney that is too large will contribute to faster creosote buildup.
- Never use an accelerant such as lighter fluid to start your fire.
- Inspect your chimney annually for creosote buildup. If you are not comfortable cleaning it yourself or don't have the proper tools, have it cleaned professionally.
- Have your wood stove / fireplace and chimney professionally inspected periodically by a WETT certified technician (Wood Energy Technology Training). They inspect solid fuel burning systems for excessive wear or damage and identify any repairs/replacements that may be required.
- If you are purchasing a property that has a solid fuel burning system, your Insurer will require a WETT Certificate before they will insure the structure against fire. Since building codes and safety technology are always changing, the wood stove and chimney that were installed 20 years ago may no longer be considered safe. Being conscientious about good stove and chimney maintenance will prevent issues and protect property and lives.

Fireworks & The Environment

A quick Google search will provide a myriad of information about fireworks, both good and bad. Fireworks displays are exciting to watch and therefore unlikely to wane in popularity. However, they also come with risks, from both a safety and an environmental standpoint. Below are some things to consider prior to planning a fireworks display.

- Fireworks contain several chemicals which are dangerous to the environment and dangerous for humans to inhale. As consumer fireworks are released at low heights, the danger of breathing them in is increased. The smoke can contain sulfur-coal compounds

and traces of heavy metals. The combustion cloud can contain ozone, sulfur dioxide and nitric oxide.

- The fallout from fireworks (including the metals and chemicals mentioned above) falls into the water or onto the land where rain carries it into our lakes and rivers. This can harm fish and change the balance of the water, contributing to changes in the type of plants that grow and the nutrient load of the lake.
- The noise and light can disrupt nocturnal creatures' cycles and behaviour.
- New developments in commercial fireworks to reduce or replace certain chemicals considered dangerous to the environment are occurring over time, as the commercial fireworks industry wishes to become environmentally friendly. This can't be said of consumer fireworks, which are mostly made in offshore factories where price is the only driving factor and many banned substances are still used.
- Many offshore fireworks factories don't have rigorous safety controls, resulting in personal injuries that take place every year from defective consumer fireworks.
- Embers from fireworks fallout can start fires. Likewise, improperly deployed fireworks or defective fireworks which blow open instead of firing vertically are the cause of a great many fires. In the area surrounding our lake, which is almost completely forested, the risk is greatly heightened, and there is the potential for catastrophic consequences if a forest fire is started.
- If you want to view a fireworks display, consider attending a large event with a commercial display of fireworks.
- If you do set off fireworks at the cottage, use common sense and obey the rules and the safety precautions contained in the by-law, including the banned items, restricted days and total prohibitions during a high or extreme (total fire ban) fire hazard rating. Extreme caution must be exercised at all times.

IMPORTANT: "Flying lanterns" are never a good idea, particularly when released over forested areas! Find out more, here: <https://foca.on.ca/flying-fire-lanterns/>.