



## Protecting Children from Carbon Monoxide Poisoning

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Carbon monoxide is a leading cause of accidental poisoning deaths in Ontario, Canada and North America. An estimated 414 Canadians died of carbon monoxide poisoning between 2000 and 2007, including 87 in Ontario. In 2008, the London Fire Department responded to over 800 calls from people whose Carbon Monoxide alarms sounded or who suspected they might have been exposed. In many cases, fire crews found dangerous levels of carbon monoxide.

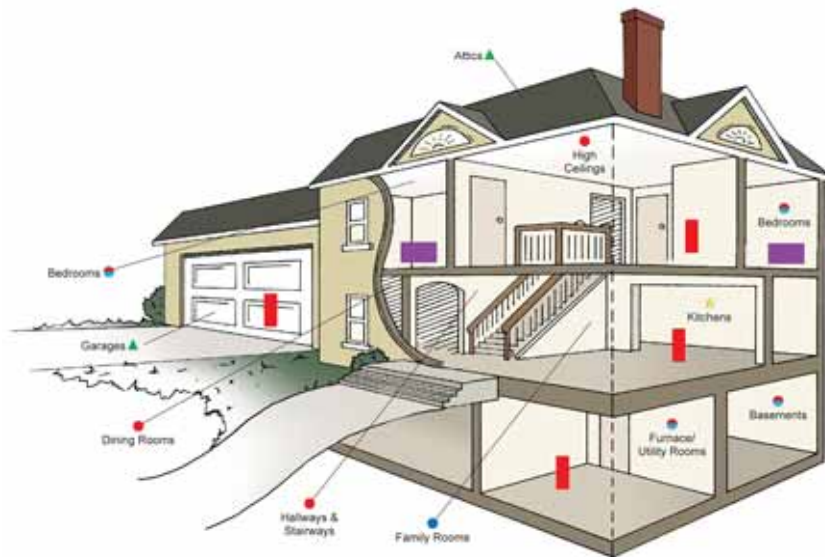
Carbon monoxide (CO) is a toxic gas that is colourless, odourless and tasteless often referred to as the 'silent killer'. Carbon monoxide is a by-product produced by the incomplete burning or combustion of fuels (natural gas, propane, heating oil, kerosene, coal, charcoal, gasoline and wood) and released by gas furnaces, hot water heaters, cars, fireplaces, wood stoves, clothes dryers and kerosene heaters.



When inhaled it rapidly accumulates in the blood reducing the ability for blood to carry oxygen throughout your body. It can poison the body quickly in high concentrations or slowly over long periods of time. People most at risk are infants, small children, pregnant women, elderly people and people with heart or lung problems.

## Where Should I Install Carbon Monoxide Detectors?

- ➡ It is important to have Carbon Monoxide Detectors installed on all levels of your home, particularly near sleeping areas, near the home heating source and in other rooms where a combustion device such as a gas clothes dryer is located.



- ➡ Carbon Monoxide Detectors monitor airborne concentration levels (parts per million) of carbon monoxide and sound an audible alarm when harmful CO levels are present. Be sure that your alarm has been certified to the Canadian Standards Association CAN/CGA 6.19 standard or the Underwriters Laboratories (UL) 2034 standard.
- ➡ When installing a Carbon Monoxide Detector always follow the manufacturer's instructions. Test the Carbon Monoxide alarm at least once a month and replace batteries according to manufacturer's instructions.
- ➡ Considering that smoke rises to the ceiling and Carbon Monoxide mixes with air, a Carbon Monoxide Detector should be located at knee-height (about the same as prone sleeping height). Due to the possibility of tampering or damage by pets, children, and vacuum cleaners, it may be located up to chest height.
- ➡ If a Carbon Monoxide Detector is blocked by furniture, draperies or any other obstruction that prevents normal airflow, it will not work properly.

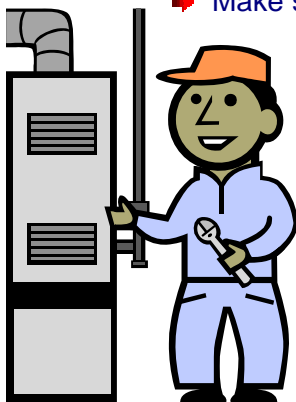
## Where Should I Install Combination Smoke/Carbon Monoxide Alarms?

- If you purchased a combination Smoke/Carbon Monoxide Alarm, it should be installed on the ceiling to ensure that it will detect smoke effectively.
- Always refer to the manufacturer's instructions for additional information regarding proper installation, use and maintenance.

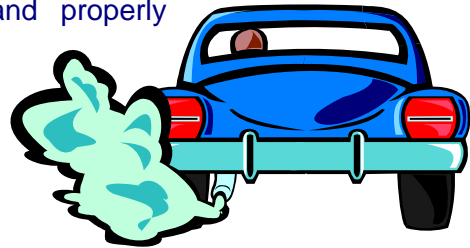


## Reduce the Risks of Exposure to Carbon Monoxide

- Open your garage door before you start your car.
- If you have a natural gas or propane clothes dryer, clean the ductwork and outside vent cover regularly to ensure they are not blocked and properly ventilated.



- Make sure your furnace and chimney are inspected and maintained annually by a qualified professional.



- Make sure the flue is open in your fireplace before you light a fire. If the chimney does not draw, call a fireplace professional.
- Do not use propane, natural gas or charcoal barbecue grill indoors, in an attached garage or in any other enclosed area.
- Never run gasoline-powered tools such as lawnmowers, snow blowers or grass trimmers inside a garage.

- Avoid the use of all kerosene heaters indoors, in a garage or any other enclosed space because they produce Carbon Monoxide and other pollutants. Some kerosene heaters are specifically designed for indoor use. Please review and follow the instructions before every use.

- Test your alarms to make sure you can hear them and practice an emergency escape plan with your entire family.
- Never leave a car, SUV, or motorcycle engine running inside a garage - even if the garage door is open.
- Carbon Monoxide can accumulate anywhere in or around your boat, so install a Carbon Monoxide Detector on your motorboat as well.





- ➡ Never heat your home with a gas stove.
- ➡ During and after a snowstorm, make sure vents for the dryer, furnace, stove and fireplace are clear of snow.
- ➡ Never use a gas-powered generator inside your home.

## Symptoms of Carbon Monoxide Poisoning

The most common symptoms of carbon monoxide poisoning include headache, fatigue, nausea, vomiting, dizziness, burning eyes and confusion. In severe cases, the person may lose consciousness or die. The elderly, children and people with heart or respiratory conditions may be particularly sensitive to Carbon Monoxide.

- ➡ Carbon Monoxide poisoning can often be mistaken for other illnesses, such as flu.
- ➡ Often, more than one person in the household will suffer symptoms at the same time.



## Watch Out for these Danger Signs

- ➡ You or other members of your family have symptoms of Carbon Monoxide exposure. (see list above).
- ➡ You notice a sharp, penetrating odour or smell of gas when your furnace or other fuel-burning equipment turns on.
- ➡ The air is stale or stuffy.
- ➡ The pilot light of your furnace or other fuel-burning equipment goes out.
- ➡ Chalky white powder forms on the chimney/exhaust vent pipe or soot build-up occurs around the exhaust vent.

## If your Carbon Monoxide Detector goes off, follow these steps:

- ➡ **DO NOT** assume it is a false alarm.
- ➡ Get everyone out of the house as quickly as possible into fresh air and leave the front and back doors open.

- ➡ Call your local Fire Department or '911' from a neighbour's home or a cell phone outside of your home.
- ➡ If there is a strong smell of natural gas in your home, evacuate immediately, leaving the doors open and contact your local gas utility.
- ➡ If someone is experiencing Carbon Monoxide CO poisoning symptoms, call 911 for medical attention.
- ➡ If no one is experiencing symptoms, call the Fire Department. They will let you know when it is safe to re-enter your home.
- ➡ If no symptoms are experienced, reset the alarm and ensure that it activates. If the alarm sounds a second time, call the local Fire Department for their assistance.
- ➡ If the alarm does not sound a second time, check for common conditions that may have caused a Carbon Monoxide build-up or contact a qualified heating contractor to check your fuel-burning equipment.

## **For the Safety of your Family - Please Remember**

- ➡ You have a responsibility to know about the dangers of Carbon Monoxide. Your knowledge and proactive measures can save lives.
- ➡ Carbon Monoxide Detectors do not eliminate the need for regular inspection, maintenance and safe use of the fuel-burning equipment in your home.
- ➡ Take the time to learn about the use of Carbon Monoxide Detectors in your home to ensure you are using the equipment properly and effectively.



## **Additional Resources**

[The Silent Killer](#) – United Kingdom – very engaging and informative website designed to help people understand the dangers of carbon monoxide in the home and workplace.

[www.COSafety.ca](http://www.COSafety.ca) – Technical Standards Safety Authority

[www.carbonmonoxidekills.com](http://www.carbonmonoxidekills.com) – Global Edition

[Health Canada – Carbon Monoxide](#) - Detectors Can Prevent Illness, Save Lives