

# CARBON MONOXIDE SAFETY

## CARBON MONOXIDE

### What is it?

Carbon monoxide (CO) is a toxic gas that you can't see or smell, which can be harmful if you are exposed to it.

### Where does CO come from?

CO is a by-product of burning gasoline, natural gas, propane, wood, oil, kerosene or tobacco. When these fuels don't have enough fresh air to burn completely, or if exhaust is not vented to the outdoors, a build up of CO can result. It can come from:

- Furnaces, gas range/stoves, gas clothes dryers, water heaters, boilers, fireplaces and wood-burning stoves
- Portable fuel-burning heaters and stoves, such as those used for camping
- Vehicles, generators and other combustion engines running in an attached garage or other enclosed space
- Blocked chimneys or flues
- Cracked or damaged furnace exchangers
- Second-hand smoke
- Back drafting and changes in air pressure
- Barbecues and grills

### How can you tell if CO is present?

CO is sometimes called "the invisible killer" because you can't see it, smell it, feel it or taste it. Unlike many other toxins and poisons, CO doesn't irritate your body or cause pain – meaning there's often no warning or danger signs of its presence. That's why it's important to be alert to physical symptoms of CO, such as unexplained:



- severe headaches
- disorientation



- nausea
- vomiting



- dizziness
- confusion



- fatigue
- weakness



- sleepiness
- lack of consciousness



Can't See It



Can't Smell It



Office of the  
Fire Commissioner  
Emergency Management BC



## How can you prevent CO exposure?

**The risk of CO poisoning from correctly-installed, well-maintained and properly-used appliances is extremely low.** You

can reduce the risk even further by having a licensed contractor install, inspect and service your appliances as well as check vents regularly to make sure they are connected, clear of obstructions and in good repair. Use Technical Safety BC's online search tool to find someone near you: [technicalsafetymc.ca/find-contractor](http://technicalsafetymc.ca/find-contractor)  
Other prevention tips:

- Make sure outside air ducts, exhaust vents and bug screens are clear, allowing air to flow freely
- Open the damper and a window or door nearby when using a wood-burning fireplace. Before you close the damper, make sure the ashes have cooled
- Always use the exhaust fan when cooking on a gas range, to ventilate fumes to the outside
- Never use a portable generator, gas or propane BBQ, heater, lamp or other appliance intended for outdoor-use only inside a house, apartment/condo, garage, tent or RV
- Don't start chainsaws, leaf blowers or lawnmowers in a garage or enclosed space
- Never start a vehicle in a closed garage. Exit the garage immediately after starting the vehicle

## CO alarms

**Every home with a fuel-burning appliance/heater, attached garage or fireplace should have a CO alarm.**

When choosing a CO alarm, make sure it has a certification mark from an agency accredited by the Standards Council of Canada, such as the Canadian Standards Association (CSA) and Underwriters Laboratories of Canada (ULC). Proper certification marks show that the alarm you're buying meets Canadian safety standards.

Always follow the manufacturer's instructions regarding the installation and maintenance of your CO alarm.



- Install CO alarms. Test them monthly and replace batteries according to manufacturer's instructions.



- Have all fuel-burning appliances maintained annually or according to manufacturer's instructions.

## If you suspect CO in your home

Carbon monoxide inhibits the blood's capacity to carry oxygen and can cause health problems before you even notice that it's present.

At low levels, effects include flu-like symptoms, such as tiredness, headaches, shortness of breath and impaired motor functions.

At high levels, or if you are exposed to low levels for long periods of time, you can experience dizziness, chest pain, poor vision and difficulty thinking.

Being exposed to too much CO for too long could lead to unconsciousness, brain damage and death.

**If you suspect CO poisoning, get into fresh air immediately and call 911 or your local emergency number.**

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Can't Hear It