

# the **FACTS** about **carbonmonoxide**

## 1) **What is Carbon Monoxide (CO)?**

- Carbon Monoxide is a colorless, odorless and tasteless poison gas that can be fatal when inhaled.
- It is sometimes called the “silent killer.”
- CO inhibits the blood’s capacity to carry oxygen.
- CO can be produced when burning any fuel, such as gasoline, propane, natural gas, oil and wood.
- CO is the product of incomplete combustion. If you have fire, you have CO.

## 2) **Where does Carbon Monoxide (CO) come from?**

- Any fuel-burning appliance that is malfunctioning or improperly installed.
- Furnaces, gas range/stove, gas clothes dryer, water heater, portable fuel-burning space heaters, fireplaces, generators and wood burning stoves.
- Vehicles, generators and other combustion engines running in an attached garage.
- Blocked chimney or flue.
- Cracked or loose furnace exchanger.
- Back drafting and changes in air pressure.
- Operating a grill in an enclosed space.

## 3) **What are the symptoms of Carbon Monoxide (CO) poisoning?**

- Initial symptoms are similar to the flu without a fever and can include dizziness, severe headaches, nausea, sleepiness, fatigue/weakness and disorientation/confusion.

## 4) **What are the effects Carbon Monoxide (CO) exposure?**

- Common Mild Exposure – Slight headache, nausea, vomiting, fatigue, flu-like symptoms.
- Common Medium Exposure – Throbbing headache, drowsiness, confusion, fast heart rate.
- Common Extreme Exposure – Convulsions, unconsciousness, brain damage, heart and lung failure followed by death.
- If you experience even mild CO poisoning symptoms, immediately consult a physician!

## 5) **Are there any steps I can take to prevent Carbon Monoxide (CO) poisoning?**

- Properly equip your home with carbon monoxide alarms on every level and in sleeping areas. The only safe way to detect CO in your home is with a CO alarm.
- Every year have the heating system, vents, chimney and flue inspected by a qualified technician.
- Regularly examine vents and chimneys for improper connections, visible rust and stains.
- Install and operate appliances according to the manufacturer’s instructions.
- Only purchase appliances that have been approved by a nationally recognized testing laboratory.
- Never use a gas range/stove to heat the home.
- Never leave your car idling in a closed garage or use fuel-powered appliances or tools in enclosed, attached areas such as garages or porches. Carbon monoxide can seep into your home through vents and doors.

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- 6) **Do I need a Carbon Monoxide (CO) alarm? Where should it be installed?**
- Every home with at least one fuel-burning appliance/heater, attached garage or fireplace should have a CO alarm.
  - If the home has only one CO alarm, it should be installed in the main bedroom or in the hallway outside of the sleeping area.
  - An alarm should be installed on every level of the home and in sleeping areas.
  - Place the alarm at least 15 feet away from fuel-burning appliances.
  - Make sure nothing is covering or obstructing the unit.
  - Do not place the unit in dead air spaces or next to a window or door.
  - Test the CO alarm once a month by pressing the test/reset button.
  - Every month, unplug the unit and vacuum with a soft-brush attachment or wipe with a clean, dry cloth to remove accumulated dust.
- 7) **Should my Carbon Monoxide (CO) alarm have a digital display? What does the Peak Level Memory function do?**
- A digital display allows you to see if CO is present and respond before it becomes a dangerous situation.
  - Peak Level Memory stores the highest recorded reading prior to being reset. This feature enables you to know if there was a reading while you were away from home, and also can help emergency responders determine the best treatment.
- 8) **Whom should I call if my Carbon Monoxide (CO) alarm goes off?**
- If anyone is experiencing symptoms, you need to get everyone into fresh air and call 911 from a neighbor's home. If no one is experiencing symptoms, you should call the fire department or a qualified technician from a neighbor's home to have the problem inspected. If you are unable to leave the home to call for help, open the doors and windows, and turn off all possible sources while you are waiting for assistance to arrive. Under no circumstance should an alarm be ignored!
- 9) **What are the different sensing technologies available for Carbon Monoxide (CO) alarms?**
- Most commercially available alarms for home installation use biomimetic (also called gel-cell), metal-oxide semiconductor, or electrochemical sensing technologies. Biomimetic alarms mimic the absorption of CO into the blood. Typically, semiconductor CO alarms require more energy and need to be plugged in or hard-wired.
  - Some manufacturers use advanced electrochemical sensing technology in their CO alarms. With this technology, the presence of carbon monoxide causes a chemical reaction that instigates a current flow through the circuit. Electrochemical sensors are more stable during humidity and temperature changes and resists reacting to common household chemicals that may cause false readings. Low power requirements (standard alkaline batteries) also mean that advanced features, such as digital display and Peak Level Memory, also are possible these products.