

# Carbon Monoxide

Winter Storm Warning!

• **Poisonous**

*Winter snows can create drifts that block exhaust vents, forcing carbon monoxide gas (CO) to back-up into your home. High efficiency appliances and those with power-vent blowers by definition waste less heat, so the exhaust air temperature is very low. Often it is too low to melt snow in a plugged exhaust pipe or vent. Keep sidewall and direct vents clear of obstructions, drifting snow and bushes to provide proper ventilation.*

• **Odorless**

Hundreds of people accidentally die each year from CO poisoning caused by malfunctioning or improperly used fuel-burning appliances. (EPA data) According to the Journal of the American Medical Association (JAMA), carbon monoxide is the number one cause of poisoning deaths in the U.S.

*Carbon monoxide gas is produced whenever any fuel, such as gas, oil, kerosene, wood or charcoal is burned.*

• **Colorless**

**SYMPTOMS** of Carbon Monoxide Poisoning

CO enters the lungs and blood where it competes with oxygen normally carried by red blood cells. CO attaches to the cells 200 times easier than oxygen. Without oxygen cells begin to die.

Exposure to carbon monoxide can produce *flu-like symptoms* such as:

- headache
- nausea
- dizziness
- confusion
- fainting

At higher levels, CO exposure can cause:

- unconsciousness
- death

• **Tasteless**

What to do if you suspect CO **EXPOSURE**;

- Get out of the house and get fresh air.
- Call the fire department from a neighbor's house.
- If you have symptoms, seek medical help immediately.

(over)



## **FireFACTORS**

Office of the State Fire Marshal

Department of Fire Services

PO Box 1025, State Road • Stow, Massachusetts 01775 • (978) 567-3380 • [www.mass.gov/dfs](http://www.mass.gov/dfs)

• **Poisonous**

**PROTECT** your family:

- Install carbon monoxide detectors on every level of your home, except unfinished basements or attics.
- Since 2006, state law has required carbon monoxide detectors in most homes.
- Locate CO detectors near bedrooms so family members will awaken at night.
- Detectors should be kept away from open windows or doors, excessively hot, cold or damp areas and "dead-air spaces" such as corners of rooms and peaks of ceilings.
- Do not place a CO detector in a garage, furnace room, near the stove or fireplace.

• **Odorless**

What **KIND** of **CO DETECTORS** to purchase?

- Make sure that any detector you purchase is approved and certified by a nationally recognized testing agency, such as Underwriters Laboratory (UL) and that it meets the requirements of state law.
- There are several types of alarms that are allowed in Massachusetts:
  - » Battery powered with battery monitoring;
  - » Plug-in (AC powered) units with battery backup;
  - » AC primary power (hard-wired – usually involves hiring an electrician) with battery backup;
  - » Low-voltage with secondary power; and
  - » Combination smoke detectors and CO alarms that have a signal as well as a voice alert.
- Follow installation instructions carefully.

• **Colorless**

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**If appliances that burn fuel are properly maintained and used, the amount of CO produced is usually not hazardous.**

Read and follow the manufacturer's instructions that come with fuel-burning devices.

**However, if appliances are not working properly or are used incorrectly, dangerous levels of CO can result.**

• **Tasteless**

- Have a qualified service technician inspect your appliances yearly, before the heating season.
- Check vent pipes, flues and chimneys for leaks or blockages.
- Un-vented kerosene heaters are illegal in MA.
- Never use a charcoal grill indoors!
- Do not use a gas oven to heat your home.
- Don't leave a vehicle running inside a garage, even if the door is open, fumes will build up quickly inside the home.
- Never use gasoline-powered engines (generators, chain saws, blowers, weed trimmers, mowers or snow blowers) indoors or near doors or windows.