

The Inspector SpeaksSM

Every Breath You Take: What you need to know about Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless and deadly gas. Because you can't see, taste or smell it, carbon monoxide can kill you before you know it's there. At lower levels of exposure, carbon monoxide causes serious health problems.

Where does CO come from?

Carbon monoxide is produced as a normal byproduct of combustion by gas or propane furnaces, gas water heaters, fireplaces, gas stoves, gas dryers, charcoal grills, lawnmowers and automobiles. Proper venting usually ushers the gas out of the building before it becomes a problem. When vents are blocked or inadequate, however, carbon monoxide can build up to dangerous levels.

Malfunctioning appliances are also deadly culprits. Cracked heat exchangers in furnaces and fuel-combustion problems in water heaters cause these appliances to produce excess carbon monoxide.

A third and easily preventable cause of carbon monoxide build-up is the operation of gas powered equipment or automobiles in a dwelling or attached garage. Even with the garage door open, carbon monoxide will be drawn into the building because indoor air pressure is generally lower than outdoor air pressure. Charcoal grills also release carbon monoxide and should never be used inside.

Signs and Symptoms

Carbon monoxide inhibits the blood's ability to carry oxygen to body tissues, including vital organs such as the heart and brain. At low levels, carbon monoxide exposure causes mild headaches, fatigue, nausea, dizziness and confusion. These flu-like symptoms disappear quickly once the people affected step outside for fresh air. At higher carbon monoxide levels, symptoms intensify and unconsciousness and death follow quickly.

Unborn babies, infants, children, the elderly, heart disease sufferers and pregnant women are especially susceptible to carbon monoxide poisoning. Exposure levels that

cause relatively minor problems in healthy adults can cause long-term brain damage or even death among these people.

Detectors Provide Peace of Mind

If your building has a gas furnace, gas water boiler or heater, gas stove, gas dryer, fireplace or is attached to a garage where cars are parked, you are at risk for carbon monoxide poisoning. A carbon monoxide detector is a simple, inexpensive device that can alert you to high carbon monoxide levels.

The Consumer Product Safety Commission recommends placing one detector on each floor of a building. One of the detectors should be placed near the major gas-burning appliance, such as the furnace or water heater, but not closer than fifteen feet. And since carbon monoxide is roughly the same weight as air and distributes evenly throughout a room, a detector will be effective whether placed at floor or ceiling level or anywhere in between.

What Kind of Detector?

There are two types of carbon monoxide detectors: those that plug in to a standard outlet and those that are battery-powered. For most applications we recommend plug-in detectors with digital readouts. These can be plugged directly into any outlet and continuously display CO levels in parts per million (ppm). If the unit alarms, this display will help you and the gas company determine how serious the carbon monoxide problem is and what its probable cause is. While the battery-powered units are convenient because they can be placed anywhere, they generally lack a digital readout and require periodic replacement of the battery/sensor module.

Whatever type of carbon monoxide alarm you choose, be sure to keep it clean and free of grease, soot and debris. Wipe it periodically with a slightly damp cloth or vacuum it. Also test the alarm regularly.

If the Detector Alarms

If your carbon monoxide detector goes off, stay calm. Detectors alarm at relatively

low carbon monoxide levels, so usually the situation is not imminently life threatening. Do not call 911 unless anyone in the building feels ill or is experiencing flu-like symptoms of headache, nausea or dizziness. If anyone is experiencing these symptoms, however, or if the detector display reads above 200 ppm, evacuate the building immediately and call 911. The best initial treatment for carbon monoxide exposure is fresh air.

If everyone in the building is feeling fine, simply turn off any gas burning appliances or equipment, ventilate the area and attempt to reset the alarm. If the alarm will not reset or resounds, or if the display reads above 100 ppm, call the gas company or your heating contractor to inspect your system for possible problems.



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