Malta McConnelsville Fire Department

What is Carbon Monoxide

What Is Carbon Monoxide and Who Is At Risk?

Carbon monoxide (CO) is a colorless, odorless deadly gas. Because you can't see, taste, or smell it, carbon monoxide can kill you before you know it's there. Everyone is at risk for carbon monoxide poisoning. Experts believe, however, that individuals with greater oxygen requirements such as unborn babies, infants, children, senior citizens and people with coronary or respiratory problems are at greater risk.

Why Is Carbon Monoxide So Dangerous?

The great danger of carbon monoxide is its attraction to hemoglobin in the blood stream. CO is breathed in through the lungs and bonds with hemoglobin in the blood. Displacing the oxygen cells need to function. When CO is present in the air, it rapidly accumulates in the blood, forming a toxic compound known as carboxyhemoglobin (COHb). Carboxyhemoglobin causes symptoms similar to the flu, such as headaches, fatigue, nausea, dizzy spells, confusion and irritability. As levels of COHb increase, vomiting, loss of consciousness and eventually brain damage or death can result.

Where Does Carbon Monoxide Come From?

Carbon monoxide is a by-product of combustion, present whenever fuel is burned. It is produced by common home appliances, such as gas or oil furnaces, gas fueled refrigerators or clothes dryers, gas water heaters, fireplaces, charcoal grills, gas ranges, wood burning stoves and unvented space heaters. Fumes from automobiles also contain carbon monoxide and can enter the home through walls or doorways if a car is left running in an attached garage. All of these sources can contribute to a CO problem in the home. If a home is vented properly and is free from appliance malfunctions, air pressure fluctuations or airway blockages, carbon monoxide will most likely be safely vented to the outside. But in today's "energy-efficient" homes this is frequently not the case. Insulation meant to keep warm air in during winter months and cool air in during summer months can trap CO-polluted air in a home year-round. Furnace heater exchangers can crack, vents can become blocked, and inadequate air supply for combustion appliances can cause conditions known as back drafting or reverse stacking, which force contaminated air back into the home.

Where To Look For Problem Sources Of Carbon Monoxide

A gas fueled forced air furnace may be the source of leaks and should be carefully inspected.

Check all venting systems to the outside, including flues and chimneys for cracks, corrosion, holes, debris or blockages. Animals and birds can build nests in chimneys, preventing gases from escaping.

Check all appliances that use flammable fuels such as natural gas, oil, wood or kerosene.

Be sure space heaters are vented properly. Unvented space eaters that use a flammable fuel such as kerosene can release carbon monoxide into the home.

Barbecue grills should never be operated indoors. Stovetop or ovens that operate on flammable fuels should not be used to heat a residence.

Check fireplaces for closed, blocked or bent flues, soot and debris.

Check the clothes dryer vent opening outside the house for lint.

How Can I Protect Myself and My Family From Carbon Monoxide Poisoning?

Install at least one carbon monoxide detector near the sleeping area and for extra protection install a second detector near the home's heat source.

Choose an Underwriters Laboratories (UL) listed detector that sounds an audible alarm. Units with a digital readout may give you a better idea of the actual conditions.

In addition to installing carbon monoxide detectors, regular inspection and service of potential problem sources of carbon monoxide should be done.

What should you do if your detector alerts?

If your carbon monoxide detector alerts you, close all doors and windows and take all members of your family to a neighbor’s house. Call 911 from there. Be sure to give your own address or the 911 system will direct us to your neighbors. If you ventilate your house, then the fire department will not be able to test for the actual level of carbon monoxide in your home when we arrive with our gas detection equipment. Many alerts are due to faulty detectors, and the only way for us to tell is to check ourselves