



## CARBON MONOXIDE Q & A

# FIRE SAFETY

*Make Your Place.....Fire Safe!*

### **What is the source of carbon monoxide (CO)?**

CO is produced by the incomplete combustion of fuels such as natural gas, propane, heating oil, kerosene, coal, charcoal, gasoline and wood. This problem can occur in any device which depends on burning fuel for heat or energy. For example, furnaces, boilers, room heaters, hot water heaters, stoves, grills and any gasoline engine (i.e. lawn mower) are included in this list of devices.

### **What makes carbon monoxide so dangerous?**

Carbon monoxide is an odourless, colourless, gas which is very toxic. When carbon monoxide is inhaled, it produces an effect known as chemical asphyxiation. Injury is due to the combining of CO with hemoglobin in the blood, lowering the blood's oxygen-carrying capacity. Even at very low parts per million levels, the body is quickly affected by oxygen starvation. Exposure during sleep is particularly dangerous because the victim usually does not awaken.

### **Why is CO a problem now?**

CO has been with us for many years. Fifteen years ago our homes were built in a manner that encouraged air leakage, therefore air exchange occurred within the home on a regular basis. Today's homes are super-insulated, sealed and wrapped in plastic. This "sealing" of the home creates an environment that not only captures and holds pollutants but often results in a "negative indoor pressure" that can and does draw toxic fumes back into the home.

### **How much of a problem is carbon monoxide poisoning?**

The U.S. Consumer Product Safety Commission (CPSC), has stated that CO is the largest cause of accidental poisoning in the American home. At least 250 people die in the US each year from accidental CO poisoning and many more are hospitalized. However, the Mayo Clinic published a report in 1984 that indicated much higher numbers. That report suggests that more than 1,500 people die from accidental CO poisoning annually and that 10,000 or more receive hospital or medical treatment. It goes on to say the numbers are likely much higher because reporting and recording procedures for CO incidents are not reliable.

**Why should you be concerned about carbon monoxide gas?**

Carbon Monoxide or CO is a poisonous gas which is especially dangerous due to its physical characteristics and effect on the body. It is often referred to as the "Silent Killer". There are many potential sources and combinations of conditions that may produce carbon monoxide. In any enclosed space (home, recreational vehicles, boat, etc.), even a small accumulation of CO can be dangerous.

**What are the symptoms of carbon monoxide poisoning?**

Carbon Monoxide poisoning can strike quickly or build up over time. The initial symptoms of CO poisoning are similar to flu symptoms; headache, nausea, and fatigue. With increased exposure time or CO concentration, the symptoms become more severe, taking the form of drowsiness and confusion. Continued exposure can lead to brain damage and death.

**What are some common sources of carbon monoxide in a residence?**

The most common causes of CO accumulation in homes include: a blocked or poorly ventilated fireplace chimney or furnace flue, faulty or damaged heating equipment (especially cracked furnace heat exchanges), malfunctioning space heater, and automobile or lawn mower exhaust in garages with poor ventilation.

**Is natural gas more likely to be a source of dangerous carbon monoxide than other fuels?**

When properly installed and maintained, your natural gas furnace and hot water heater do not emit carbon monoxide. Natural gas is known as "clean burning" fuel, because under correct operating conditions the combustion byproducts are water vapour and carbon dioxide, which are not toxic. The exhaust fumes from furnaces and water heaters is vented outside through a flue duct or chimney.

**Where should the carbon monoxide detector be placed in the home?**

Detectors should be placed in close proximity to bedrooms. They may also be placed in the furnace room or other areas of the residence where carbon monoxide might accumulate.

**Need assistance.....**please contact the *Sioux Narrows - Nestor Falls Fire Rescue Services* at 807-226-5241 or 1-888-408-3812.