



Carbon Monoxide Poisoning

By: Capt Nina M. Griffin NREMT-P
Boulder Mountain Fire Protection District

Carbon Monoxide Facts

- Carbon monoxide, or CO, is an odorless, colorless gas that can cause sudden illness and death.
- Known as the "Silent Killer"
- Carbon Monoxide is the byproduct of incomplete combustion, with one oxygen and one carbon molecule.
- Carbon monoxide is dangerous to the body because, as it is breathed, the tightly bound CO molecule will attach itself to the hemoglobin molecule in the blood with a greater affinity than oxygen does.
- This means that the CO molecule actually comes in and "kicks" the oxygen off the hemoglobin molecule, and binds more tightly, preventing oxygen exchange. This essentially causes the body tissues to suffocate.
- Commercial CO alarms are readily available; and at a minimum should be placed in the hallway outside bedrooms, in each separate area of the home.
- These detectors may be battery operated, and need to have the batteries replaced every six months, at the same time as the smoke detectors. They can also be the plug in type, which also need a battery back-up in case the power goes out.
- The most likely causes of CO are when fuels- wood, propane, natural gas, coal, gas, diesel fuel, kerosene etc.- are burned in an area without adequate ventilation.

Sources of Carbon Monoxide:

- ✓ fuel-burning space heaters inside the house
- ✓ fuel-burning lanterns placed near pipes to prevent them from freezing
- ✓ fuel-burning generator in the house
- ✓ a fireplace with an inefficient chimney
- ✓ faulty duct work in a furnace room
- ✓ blockage in the ventilation system from an animal living there
- ✓ starting a car in the garage- even with the garage door open
- ✓ a charcoal grill used indoors

Symptoms of Low Level CO poisoning include:

- ✓ Headache
- ✓ Fatigue
- ✓ Shortness of breath
- ✓ Nausea
- ✓ Dizziness

Symptoms of high level CO poisoning include:

- ✓ Mental confusion
- ✓ Vomiting
- ✓ Loss of muscular coordination
- ✓ Loss of consciousness
- ✓ Death

While all people are subject to the effects of CO poisoning, there are a few groups that are especially susceptible. They are:

- ✓ The elderly
- ✓ People with anemia
- ✓ People with chronic respiratory conditions
- ✓ pregnant women and especially their fetus

If you suspect that you have been exposed to Carbon Monoxide:

- Move to fresh air outside
- Call 911
- Conduct a head count of all people in your home
- DO NOT go back in your house if there is someone inside- instead, let Emergency Service Personnel know the approximate location
- If you are told that the CO is coming from an appliance, DO NOT use the appliance until a trained service person has come in to inspect it

If you are in need a carbon monoxide alarm, please visit our website at bouldermountainfire.org click on the Fire Safety Store and follow the directions. We keep a supply of CO detectors on hand and will be glad to assist you in getting this very important piece of equipment into your home.

NEVER EVER IGNORE AN ALARMING CO DETECTOR. IT IS DESIGNED TO ALERT YOU BEFORE THE CO LEVEL BECOMES DEADLY