

Symptoms of CO Poisoning

Symptoms mimic flu-like symptoms

- headaches
- generalized weakness
- visual changes
- dizziness
- nausea
- vomiting
- ultimate collapse

Preventing CO Poisoning

Do not run gas powered equipment or automobiles in a home or attached garage

Conduct periodic inspections and preventive maintenance of all fuel-burning appliances or equipment in your home.

Do not Charcoal grill in your home or attached garage or enclosed porch.

Install a CO detector.

The U.S. Environmental Protection Agency suggests that if you suspect that you are experiencing carbon monoxide poisoning, get fresh air immediately. Open windows and doors for more ventilation, turn off any combustible appliances and leave the house. Contact your doctor immediately for a proper diagnosis.



State University of New York
Upstate Medical University

Health Connections

315 464-8668

Poison Control

315 476-4766



Carbon Monoxide Poisoning

The Silent Killer

Carbon Monoxide is a leading cause of poisoning deaths in the United States.

The human respiratory system is an amazing array of air passages, mucous membranes, cilia, alveoli and blood vessels. The respiratory system enables humans to interact with their environment and exchange gases. Oxygen is absorbed and CO is released. But human tolerance to adverse conditions is low.

Carbon Monoxide is a leading cause of poisoning deaths in the United States. Numbers vary but approximately 4,000 people die per year due to CO exposure. Out of the 12,000 deaths that occur annually from fires in the United States, smoke inhalation, and not associated burns, account for 60-80 percent of these deaths. Some, or all, are caused by the production of carbon monoxide (CO). During the winter it is common to read in the newspaper about entire families overcome by CO produced by a faulty fireplace, using charcoal grills in an enclosed space, or faulty exhaust systems in automobiles.

It is estimated that at least 10,000 patients a year lose at least one workday because of exposure. These numbers are probably low because it is estimated that 30 percent of patients with CO exposure are misdiagnosed as having another illness, usually gastroenteritis or food poisoning.

There are many source of carbon monoxide.

Smokers usually have CO levels of 5 to 10 percent. City dwellers in areas of increased auto use run levels higher than normal. Automobile exhaust may contain 7-10 percent carbon monoxide.

Increased environmental levels of CO have been reported at sporting events such as car races. Another source that is commonly overlooked is methylene chloride (DMC). DMC is a common ingredient in paint and varnish removers, spray paints and a variety of solvents. DMC is metabolized to produce CO in the liver.

Newer homes with increased insulation are also causing an increasing problem, as well as heating with kerosene in un vented homes.

Difficult to Detect

The characteristics of CO make it difficult to detect. It is odorless, tasteless and non-irritating. CO is very rapidly absorbed without producing significant lung problems. Symptoms may range from mild flu-like, to moderate with headache, nausea and vomiting, shortness of breath, fatigue, weakness, palpitations, to severe, with loss of consciousness and circulatory collapse. The central nervous system is very sensitive to the effects of CO. Memory loss, cognitive dysfunction, motor problems, sensory loss, dysphasia, and behavior problems may occur. Without

removal from the source the outcome is death. Carbon monoxide is produced by burning fuel. Therefore, anything in the home that burns fuel is a source for carbon monoxide.

The CO Source

Inadequate ventilation in conjunction with the use of fuels for home heating and cooking, such as wood, gas and sterno blocks can produce enough CO to poison or kill.

Sources:

- Fuel-fired furnaces (non electric)
- Unvented gas and space heaters
- Gas water heaters
- Leaking and or blocked chimneys
- Malfunctioning furnaces
- Fireplaces and wood stoves
- Back drafts from furnaces
- Gas Stoves
- Gas Dryers
- Charcoal Grills
- Lawnmowers, snow blowers, and other yard equipment
- Automobile exhaust from attached garages
- Blocked chimney
- Gas powered device placed near an air vent to the home.