

NSC Knowledge Center Safety Article Archive

The Dangers of Carbon Monoxide

Carbon monoxide, the poisonous gas that is both colorless and odorless, is often referred to as "silent killer." The incomplete burning of fossil fuels produces carbon monoxide. Major sources of CO include: unvented kerosene and gas space heaters, gas and oil furnaces and hot water heaters, gas and wood stoves, fireplaces, grills, and automobile exhaust.

When a person is exposed to unhealthy levels of CO they are said to have carbon monoxide poisoning. According to the Centers for Disease Control and Prevention, more than 500 Americans die from carbon monoxide poisoning each year and many others are hospitalized. Symptoms of carbon monoxide poisoning are similar to the flu but without a fever. Symptoms include:

- Headache
- Ringing in the ears
- Chest pain
- Muscle weakness
- Nausea and vomiting
- Dizziness
- Visual changes (blurred or double vision)
- Unconsciousness
- Respiratory and/or cardiac arrest

Infants, pregnant women, people with heart and respiratory illnesses, and the elderly are at a greater risk for harmful effects from carbon monoxide exposure.

Conditions that indicate possible CO poisoning include:

- Symptoms that come and go
- Symptoms that worsen or improve at certain times of the day or in certain places
- When people around the possible CO poisoning victim have similar symptoms
- When pets seem ill

While it is important to have carbon monoxide detectors as a back-up, especially near sleeping areas in homes, they should never replace proper use and maintenance of your fuel-burning appliances. It is better to take steps to prevent carbon monoxide from entering your workplace or home in the first place.

Tips to prevent carbon monoxide poisoning include:

- Have fuel-burning appliances professionally installed and also have them professionally inspected at the beginning of every heating season.
- Whenever possible, choose to purchase appliances that vent their exhaust to the outside.
- Whenever using a fireplace, make sure that the flue is fully open.
- Use the proper grade of fuel in kerosene space heaters.
- Always burn charcoal in a well-ventilated area, never inside a home, garage, or recreational vehicle.
- Never run your car while in the garage, even if the door is open, because exhaust can build up quickly.
- Never sleep in a room with an unvented gas or a kerosene space heater.
- Never use ovens or gas ranges to heat your home.
- Have your heating system, chimneys, and flues cleaned by professionals.
- Make sure that your furnace has adequate intake of outside air.
- Never use small gasoline-powered engines in enclosed spaces.



NSC Knowledge Center Safety Article Archive

Carbon monoxide poisoning is more prevalent during the winter months due to the frequent use of heating devices. Therefore, be aware of the danger and take the proper precautions to prevent this silent killer from entering your home or workplace.

Sources:

Centers for Disease Control and Prevention http://www.cdc.gov/nceh/airpollution/carbonmonoxide/health_tips.htm

Environmental Protection Agency http://www.epa.gov/iaq/pubs/coftsht.html

NSC Fact Sheet

http://www.nsc.org/library/facts/carbmono_121603.htm

Copyright 2005 *National Safety Council* All Rights Reserved. Reviewed 4/05.