If you have questions about carbon monoxide, contact your local gas utility, a qualified heating contractor, your ISU Extension county office, or the Iowa Statewide Poison Control Center at 1-800-222-1222.

Facts You Need to Know

Carbon Monoxide

A Silent Killer

Adapted by Thomas Greiner, Iowa State University Extension agricultural engineer, with permission from St. Luke’s Poison Center, Sioux City, Iowa, and Siouxland Carbon Monoxide Coalition.

. . . and justice for all

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File: Health and safety 2-5
What are symptoms of carbon monoxide poisoning?

Carbon monoxide (CO) poisoning is often misdiagnosed because its symptoms are similar to other common illnesses such as the flu and food poisoning. Some of the symptoms associated with carbon monoxide poisoning are:

At first:
- headaches
- dizziness
- weakness
- nausea
- rapid heartbeat
- loss of hearing
- blurry vision

Later:
- vomiting
- disorientation
- loss of consciousness
- coma
- seizures
- respiratory failure
- cardiac arrest

When should CO poisoning be suspected?

When:
- entire family is sick at the same time
- flu-like symptoms decrease while away from the house
- illness is present when gas appliances are in use
- excess moisture is on the interior of windows

What is carbon monoxide?

Carbon monoxide (CO) is a colorless, odorless, tasteless, deadly gas created when fuel burns. Any heating system or appliance that burns gas, oil, wood, propane, or kerosene is a potential source of carbon monoxide in the home.

You may be exposed to carbon monoxide gas when:
- you leave your motor vehicle engine running
- your home contains an incorrectly vented or malfunctioning water heater, furnace, space heater, fireplace, or stove
- you burn charcoal, alcohol, or gasoline in an enclosed tent, camper, or room
- you smoke a cigar, cigarette, or pipe

How does carbon monoxide harm you?

Carbon monoxide prevents oxygen from being used by your body. It is poisonous and can cause harm to your central nervous system.

Who is at risk?

Everyone is at risk of carbon monoxide poisoning. However, individuals with existing health problems such as heart and lung disease and the elderly are especially vulnerable. Infants, children, and pregnant women are also at high risk.
**How can I protect myself and my family?**

Some of the steps you can take to minimize your risk of carbon monoxide poisoning are:

- ✓ Have your furnace and fireplace inspected for cracks, gaps, rust, corrosion, or debris by a qualified professional before each heating season.

- ✓ Have gas appliances serviced yearly by a qualified service technician. Stove burners should be cleaned and adjusted to minimize the amount of carbon monoxide produced. Gas dryer vents should be checked for lint buildup that may restrict ventilation.

- ✓ Use non-electrical space heaters *only* in well-ventilated areas, not for heating your home.

- ✓ Never start or leave cars, trucks, or other vehicles running in an enclosed area.

- ✓ Never operate barbecue grills indoors or use stove tops or ovens that operate on flammable fuels to heat a residence.

- ✓ If living in a multi-family dwelling or in a home with an attached garage, be aware that carbon monoxide can enter your residence through floor boards, cracks, or underneath doors.

**What about carbon monoxide alarms?**

Carbon monoxide alarms can help alert you to increased levels of carbon monoxide in your home, but they are not foolproof!

The Consumer Product Safety Commission recommends installing at least one CO alarm per household, near the sleeping area. Homes with several sleeping areas will require multiple alarms. For added protection, locate an additional alarm at least 15 feet from the furnace.

Look for an alarm with the UL (Underwriters Laboratories) or IAS (International Approval Services) seal, and which features an audible alarm. There are several types of alarms:

- one that is wired to your home’s electrical system
- one which plugs into a standard electrical outlet
- one that runs on batteries
- one that plugs into a standard electrical outlet with back-up batteries
- combination smoke and CO alarm
- with or without digital displays
- with or without memories

Read and follow installation instructions furnished with the alarm.

**What should I do if my carbon monoxide alarm goes off or I feel I may be suffering from carbon monoxide poisoning?**

If your carbon monoxide alarm sounds or if you feel symptoms that could be carbon monoxide poisoning, *leave your home immediately to gain fresh air!* Call 911 or your local fire/rescue number.
Potential Carbon Monoxide Sources in the Home

- Blocked chimney opening
- Clogged chimney
- Improperly installed kitchen range or cooktop vent
- Portable heater
- Refrigerator
- Gas or wood-burning fireplace
- Gas or wood-burning fireplace
- Operating barbeque grill in enclosed area such as the garage
- Corroded or disconnected water heater vent pipe
- Cracked heat exchanger
- Leaking chimney pipe or flue

Remember there are many more possible sources, including:

- appliances in cabins or campers
- auto exhaust
- pool or spa heaters
- ceiling-mounted heating unit
- lack of adequate ventilation
- exhaust fan use
- tobacco smoke
- oven used to heat the home
- gas, oil, wood, or coal furnace
- attached garage
- fuel burning space heaters
- down drafting

Carbon monoxide alarm locations
(Install one CO alarm near the sleeping area. For added protection, install a second CO alarm at least 15 feet from the furnace.)