

Fact Sheet Carbon Monoxide

What is carbon monoxide?

Carbon monoxide (CO) is a colorless, odorless, tasteless, toxic gas produced during the incomplete combustion of fuels. Any heating system, appliance, or vehicle that burns gas, oil, wood, propane, or kerosene is a potential source of carbon monoxide.

Who is at risk?

Everyone is at risk of carbon monoxide poisoning. However, individuals with existing health problems such as heart and lung disease, the elderly, children, infants, and pregnant women are especially susceptible. Over the last few years, nearly 100 Iowans have died every year due to carbon monoxide poisoning. Countless more are injured and treated in hospitals and medical centers across the state. While a majority of these deaths are either suicide or smoke inhalation deaths in fires, there are Iowans becoming ill and dying in preventable incidents.

How does carbon monoxide harm you?

Carbon monoxide is rapidly absorbed by the lungs and quickly passes to the blood. There it binds to the red blood cells, preventing them from delivering oxygen to the body's tissues. Carbon monoxide has a three to four hour half-life; this means after breathing carbon monoxide, three to four hours of breathing fresh air eliminates only half the CO from the blood.

What are the symptoms of carbon monoxide poisoning?

CO poisoning is often misdiagnosed because its symptoms are often similar to other common illnesses such as the flu and food poisoning. Because this illness is often misdiagnosed it is important to notify your physician if you suspect carbon monoxide poisoning when seeking treatment for the following symptoms.

Early symptoms include but are not limited to headaches, dizziness, weakness, nausea, drowsiness, rapid heartbeat, difficulty breathing, loss of hearing or ringing in the ears, and blurry vision.

Later on more severe symptoms may include: vomiting, disorientation, loss of consciousness, seizures, coma, respiratory failure, cardiac arrest, and death.

When may you become exposed to carbon monoxide gas?

We are usually surrounded by potential sources of CO. We can become exposed when we:

- use an incorrectly vented or malfunctioning water heater, furnace, space heater, fireplace, stove, or clothes dryer
- burn charcoal, alcohol, or gasoline in an enclosed tent, camper, or room
- run a motor vehicle or gas powered lawn tool in an enclosed area without adequate air-exchange ventilation
- smoke cigarettes, cigars, or pipes

What can you do to protect yourself from carbon monoxide gas?

- have your furnace and fireplace inspected for cracks, gaps, rust, corrosion, or debris
- have any appliance making unusual noises or smells checked
- never use a gas stovetop or oven to heat a residence and use non-electric space heaters only in well ventilated areas
- never operate barbecue grills indoors
- never start or leave cars, trucks, or other vehicles running in an enclosed, non-ventilated area
- back cars out of attached garages before running motor to "warm up"
- install CO detectors
- look for a detector with the UL seal and read and follow all installation instructions
- if your CO detector sounds and/or you experience symptoms which may be carbon monoxide poisoning
- immediately leave the area to gain fresh air
- call 911 or your local fire/rescue number
- make sure potential sources of CO have been checked, necessary repairs have been made, and the area has been well ventilated before returning