

# Carbon Monoxide

Keep your family safe from carbon monoxide poisoning.

## What You Don't Know Can Hurt You

Carbon monoxide (CO) is an odorless, colorless gas produced by burning gasoline, oil, wood, kerosene, charcoal, even natural gas. Normally, the amount of CO in your home's air isn't harmful. Sometimes, however, CO concentrations reach dangerous levels. Because you can't smell it or see it, you don't know there's too much of it until you're sick. But CO can kill. Here are some ways to keep your family safe.

## First, know the symptoms of CO illness.

Mild CO levels cause loss of concentration, headaches, dizziness, weakness, fatigue, and impaired vision. As the amount of CO increases, so do the severity and danger of symptoms: rapid breathing, chest pain, and nausea. At higher levels (150–200 parts of CO in a million molecules of air, according to the US Consumer Product Safety Commission; [www.cpsc.gov](http://www.cpsc.gov)) and longer exposure, people become disoriented, lose consciousness, and can die.

## What to Do If You Have Symptoms

If you have symptoms like the ones described above, and they happen only when you're in the house, it may be CO. Open all the doors and windows, turn off all combustion appliances, and get out of the house. Go to the nearest emergency room and tell them you think it might be CO poisoning.

When you return home, keep the windows open so there's plenty of fresh air, and call a heating, ventilation, and air conditioning (HVAC) professional to inspect your system for leaks, especially if your furnace is gas- or oil-fired.

Bring in other professionals to look at gas stoves, water heaters, and dryers; wood stoves, fireplaces, and space heaters—anything that burns fuel. The inspection should include vents, ducts, chimneys, and flues. When everything is inspected and problems are fixed, have your HVAC contractor come back and sample the air in your home.

In fact, you should do this at least once a year. As the saying goes, "An ounce of prevention is worth a pound of cure."

## Other Steps You Can Take

Any appliance that burns fuel should be vented to the outside. Some people use unvented gas and kerosene space heaters. These can be dangerous! Be sure to read and follow the

manufacturer's instructions carefully. Still, leave the windows open a bit so there's enough fresh air to dilute the carbon monoxide. Don't sleep in a room heated with one of these devices. You won't feel the early effects of exposure, which can lead to unconsciousness and death.

Never burn charcoal in the house! Not even in the fireplace or an attached garage. And it's a good idea to keep a window open when you're using a wood or gas fireplace. Wood fires (even when the damper is open) and gas logs can spread CO into the room.

Never use your gas oven to heat the house, and never idle a car in the garage, whether or not the garage door is open. CO can seep into the house.

Pay attention to the symptoms of CO poisoning. Don't assume you have a cold or the flu, especially if they occur every time you're in the house or other people are feeling them, too.

## CO Monitors—Another Line of Defense

For added protection from carbon monoxide, have a CO monitor installed. There are several different kinds on the market. The simplest is a chemically activated patch that changes color just before the concentration of CO reaches a dangerous level. These have to be replaced regularly.

Electrically powered warning devices trip an alarm when CO exceeds a pre-set level. Many cannot discriminate between a short duration, non-hazardous condition and a prolonged condition that poses real danger, however. Consider a system that measures both the duration of CO contamination and the concentration of the gas. Some CO sensors automatically shut down fuel burning equipment when the carbon monoxide concentration is too high.

You spend more than a third of your life in your home. Doesn't it just make sense to ensure that your indoor air is healthy? Regular check-ups for appliances and a carbon monoxide monitor are well worth the investment. Talk to your professional HVAC contractor. He'll be happy to tell you about all the options available to you.

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