



## Carbon Monoxide Safety Fact Sheet

### ***What is carbon monoxide (CO)?***

Carbon monoxide is an invisible, odorless, tasteless, and potentially deadly gas. It is sometimes emitted to indoor spaces by malfunctioning or poorly vented appliances. It is particularly dangerous because humans cannot detect it and there are no warning signs of its presence.

### ***What are the health dangers of exposure to carbon monoxide?***

At low levels, its symptoms are similar to those of the flu. These symptoms can include fatigue, headache, nausea, dizziness, confusion, and impaired vision and coordination and may clear up after leaving the home (or source of exposure) for a period of time. At high concentrations, carbon monoxide can be fatal, sometimes in a matter of minutes.<sup>1</sup> Even if exposure is not fatal, it can cause permanent damage to the brain and other parts of the central nervous system.<sup>2</sup>

Approximately 170 people in the U.S. die each year from carbon monoxide poisoning, and thousands more are treated in emergency rooms for non-fatal exposure.<sup>3</sup>

### ***Where does carbon monoxide come from?***

Since carbon monoxide is emitted during the incomplete burning of fuels, it is given off by numerous common home appliances. These appliances include natural gas furnaces, natural gas water heaters, natural gas stoves, ovens, kerosene space heaters, wood and gas fireplaces, wood-burning stoves, and portable generators. If such appliances are either malfunctioning or poorly ventilated, carbon monoxide can seep into the home at dangerous levels. Because many of these appliances are used more in cold weather, winter is a particularly dangerous time for carbon monoxide poisoning.<sup>4</sup>

### ***How can I prevent carbon monoxide poisoning?***<sup>5</sup>

1. Have all fuel-burning appliances, including furnaces, fireplaces and chimneys, inspected by a trained professional at the beginning of **every heating season**.
2. Choose appliances that vent their fumes outside, have them installed properly, and maintain them to the manufacturer's instructions. If you cannot avoid using an unvented gas or kerosene space heater, carefully follow the cautions that come with the device, use the proper fuel, and crack a window to ensure proper ventilation and fuel-burning. Never sleep in a room containing this type of space heater.
3. Never use a gas oven to heat your home, even for a short time.
4. Never use a charcoal grill indoors.
5. Purchase a carbon monoxide detector for your home. It is important to realize, however, that CO detectors are **never** a replacement for proper maintenance and inspection of fuel-burning appliances, are **not** considered to be as reliable as smoke detectors, and often do not detect low CO levels that may still be harmful to humans. Consult with organizations such as Consumer Reports, the American Gas Association, or Underwriters Laboratories (UL) to obtain information about various brands and types of detectors.
6. Regularly test your carbon monoxide detector to make sure it is functioning and the battery is in working order.

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<sup>1</sup> "An Introduction to Indoor Air Quality (IAQ): Carbon Monoxide (CO)." *US Environmental Protection Agency*. Web. 10 Feb. 2011. <<http://www.epa.gov/iaq/co.html>>.

<sup>2</sup> "Prevent CO Poisoning." *American Association of Poison Control Centers*. Web. 10 Feb. 2011. <<http://www.aapcc.org/dnn/PoisoningPrevention/PreventCOPoisoning.aspx>>

<sup>3</sup> "Carbon Monoxide Questions & Answers." *U.S. Consumer Product Safety Commission*. Web. 10 Feb. 2011. <<http://www.cpsc.gov/cpscpub/pubs/466.html>>

<sup>4</sup> "Prevent CO Poisoning." *American Association of Poison Control Centers*. Web. 10 Feb. 2011.

<sup>5</sup> "Protect Your Family and Yourself From Carbon Monoxide Poisoning." Indoor Environments Division: Office of Air & Radiation. *US Environmental Protection Agency*. Oct. 1996. Web. 10 Feb. 2011.