

# Carbon Monoxide Facts

Carbon Monoxide (CO) is a natural by-product of combustion from fuel burning appliances and is invisible to human senses. It can cause health problems, brain damage, even death. Carbon monoxide alarms are designed to activate a warning before symptoms appear in healthy adults.

While CO alarms are designed to detect a CO leak before family members get sick, if the leak is severe enough, flu-like symptoms quickly begin to appear. This is particularly common among younger or older family members who are more vulnerable to and less tolerant to this poison.

In the last five years the Urbana Fire Rescue Services has responded to 169 carbon monoxide incidents, two of which resulted in a reading of 298 ppm (parts per million) and another at 40 ppm.

A residential style carbon monoxide detector will alarm at 35 ppm.

## **Purchasing carbon monoxide alarms:**

1. Compare the different types of alarms:
  - a. Plug-in models load into an electrical outlet. Some have a battery backup in case the power goes out.
  - b. Battery-powered models use a special battery pack. These battery packs must be replaced as recommended.
2. Read the labels carefully, looking for the seal of an independent testing agency such as Underwriters Laboratory (UL) or Factory Mutual (FM)
3. Smoke alarm / CO alarm combination units are a good option if the smoke alarm needs replacing or is over 10 years old.

## **Placement of carbon monoxide alarms:**

- Install near sleeping areas and on every floor of the home. Locate alarms at least 5 to 6 feet away from fuel-burning appliances. Follow manufacturer's recommendations.
- Carbon monoxide will diffuse across a room, allowing a working CO alarm to be placed at any height. This is different than the smoke alarm that must be placed high to capture the first signs of smoke—which rises.

You should follow the following procedure if your CO alarm activates:

- Gather all family members in a pre-designated meeting place and check to be sure everyone is present.
- Determine if anyone is experiencing poisoning symptoms such as headache, nausea, dizziness or disorientation.
- If so, leave the building immediately and call 911. Do not re-enter until responders say it is safe to do so.
- If no symptoms are present, press your CO alarm's reset button and turn off all potential sources of carbon monoxide—any appliance or machine that runs on fossil fuel such as gas furnace, water heater, stove, oven, clothes dryer, space heater, fireplace or car left running in an attached garage.
- Open doors and windows to let in fresh air.
- Call a trained service technician to check your appliances, flue and chimney systems.

To meet manufacturers' directions, a CO alarm should be installed near a sleeping area, either high or low on the wall. A warning however: the alarm might be triggered when there is no

immediate danger, if a CO alarm is installed too close to a potential source. One such source is directly over a furnace or adjacent to a gas oven. Alarms should be installed at least 15 feet away from potential sources of combustion, and within 15 feet of sleeping areas. Some appliances, when first turned on may emit small amounts of carbon monoxide.

**As of January 1, 2007 all dwelling units are required by Illinois law to have at least one working carbon monoxide alarm within 15 feet of each room used for sleeping.**

Just as smoke alarms have proven themselves effective as vital lifesaving devices, a CO alarm may save your life and the lives of your loved ones.

Carbon Monoxide is the leading cause of accidental poisoning deaths in America, according to the Journal of American Medical Association. At least 1,500 people die and 10,000 become ill from CO poisoning each year.

CO is colorless, odorless, tasteless, and non-irritating. It is a by-product of combustion produced by common household appliances such as:

- gas or oil furnaces
- water heaters
- clothes dryers
- barbecue grills
- fireplaces
- wood burning stoves
- gas ovens
- car exhaust

- Low-level symptoms of CO poisoning are similar to the flu and are often misdiagnosed. Headaches, nausea, fatigue and dizziness are all non-specific symptoms of carbon monoxide poisoning.
- Once in the bloodstream, CO combines with hemoglobin, the main component of red blood cells, preventing life-sustaining oxygen from reaching vital organs in the body such as the brain and heart.
- While everyone is at risk from CO poisoning, medical experts report that children, unborn babies, the elderly and those with heart or lung disorders are at greater risk of CO poisoning at lower thresholds of exposure.
- CO poisoning is preventable. It is recommended every home have at least one CO alarm with an audible warning signal installed near the sleeping area. Without this alarm, you may not be aware CO is present.