



## Frequently Asked Questions About Carbon Monoxide And Carbon Monoxide Detectors

### What is carbon monoxide (CO) and why do I need a carbon monoxide detector?

Carbon monoxide is a colorless, odorless, tasteless and toxic gas produced as a by-product of combustion. Any fuel burning appliance, vehicle, tool or other device has the potential to produce dangerous levels of carbon monoxide gas. Examples of carbon monoxide producing devices commonly in use around the home include:

- Fuel fired furnaces (non-electric)
- Gas water heaters
- Fireplaces and woodstoves
- Gas stoves
- Gas dryers
- Charcoal grills
- Lawnmowers, snow blowers and other yard equipment
- Automobiles

The Consumer Products Safety Commission (CPSC) reports that approximately 200 people per year are killed by accidental CO poisoning with an additional 5000 people injured. These deaths and injuries are typically caused by improperly used or malfunctioning equipment aggravated by improvements in building construction which limit the amount of fresh air flowing in to homes and other structures.

While regular maintenance and inspection of gas burning equipment in the home can minimize the potential for exposure to CO gas, the possibility for some type of sudden failure resulting in a potentially life threatening build up of gas always exists.

### What are the symptoms of CO poisoning?

The initial symptoms of CO poisoning are similar to the flu (but without the fever). They include:

- Headache
- Fatigue
- Shortness of breath
- Nausea
- Dizziness

Many people with CO poisoning mistake their symptoms for the flu or are misdiagnosed by physicians, which sometimes results in tragic deaths.

### What CO level is dangerous to your health?

The health effects of CO depend on the concentration of CO in the air and length of exposure, as well as each individual's health condition. The concentration of CO is measured in parts per million (ppm). Health effects from exposure to CO levels of approximately 1 to 70 ppm are uncertain, but most people will not experience any symptoms. As CO levels increase and remain above 70 ppm, symptoms may become more noticeable (headache, fatigue, nausea). As CO levels increase above 150 to 200 ppm, disorientation, unconsciousness, and death are possible.

### Are some types of detectors better than others? How do I select the best detector for me?

Regardless of the type of sensor used all detectors sold on the market today should conform to minimum sensitivity and alarm characteristics. These characteristics have been defined and are verified by Underwriters Laboratory in their standard for carbon monoxide detectors UL 2034. This standard was most recently revised in 1998 and has stricter requirements that the detector / alarm must meet before it can sound. As a result, the possibility of nuisance alarms is decreased. Under no circumstances should one purchase a detector that is not UL listed.

## **How many carbon monoxide detectors should I have and where should I place them?**

The Consumer Product Safety Commission recommends a detector on each floor of a residence. At a minimum, a single detector should be placed on each sleeping floor with an additional detector in the area of any major gas burning appliances such as a furnace or water heater. Installation in these areas ensures rapid detection of any potentially malfunctioning appliances and the ability to hear the alarm from all sleeping areas. In general, carbon monoxide detectors should be placed high (near the ceiling) for most effective use. Detectors should also not be placed within five feet of gas fueled appliances or near cooking or bathing areas. Consult the manufacturer's installation instructions for proper placement of a detector within a given area.

## **What should I do when my carbon monoxide detector goes off?**

First and foremost, stay calm. To determine the need to call 911, ask the following question of everyone in the household:

"Does anyone feel ill? Is anyone experiencing the 'flu-like' symptoms of headache, nausea or dizziness?"

If the answer to the above by anyone in the household is true, evacuate the household to a safe location and have someone call 911. Failure to evacuate immediately may result in prolonged exposure and worsening effects from possible carbon monoxide gas. The best initial treatment for carbon monoxide gas exposure is fresh air. If the answer to the above by everyone in the household is no, the likelihood of a serious exposure is greatly diminished and one probably does not need to call 911. Instead, turn off any gas burning appliances or equipment, ventilate the area and attempt to reset the alarm. If the alarm will not reset or resounds, call a qualified heating and ventilating service contractor to inspect your system for possible problems. If at any time during this process someone begins to feel ill with the symptoms described above evacuate the household to a safe location and have someone call 911.

## **Where can I get further information concerning carbon monoxide detectors?**

Several manufacturers of carbon monoxide detectors offer toll free numbers for additional information regarding their products. These numbers are as follows:

<b><i>Manufacturer</i></b>	<b><i>Number</i></b>
American Sensors	800-387-4219
Enzone	800-448-0535
First Alert	800-323-9005
Jameson	800-779-1719
Nighthawk	800-880-6788
Quantum	800-432-5599
Radio Shack	Contact your local store
S-Tech	800-643-5377