

What is Carbon Monoxide (CO)?

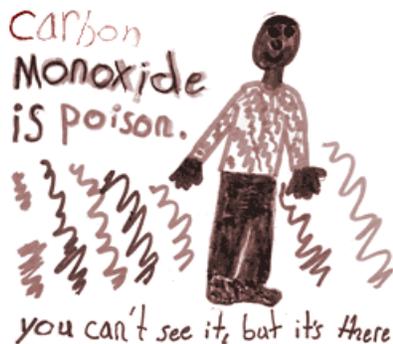
**Carbon Monoxide is an odorless, colorless, tasteless, toxic gas.**

It is produced by the incomplete combustion of the fossil fuels-gas, oil, coal, and wood used in boilers, engines, oil burners, gas fired water heaters, solid fuel appliances, and open fires. Dangerous levels of **CO** can accumulate when, as a result of poor installation, poor maintenance, failure or damage to an appliance, or when areas are poorly ventilated and the **CO** is unable to escape.

Having no odor, taste, or color it has become increasingly important to have good ventilation, to maintain all appliances regularly, and have Carbon Monoxide Detectors that both send a visual and audible warning immediately when there is a build-up of **CO**.

Because **CO** has **NO SMELL**, **NO COLOR**, & **NO TASTE** the only way to alert your family of a **CO** leak before a tragedy strikes is to install detectors.

Concentration of CO in the air	Inhalation time & symptom visibility
50 parts per million (ppm)	Safe Level;
200 ppm	Slight headache within 2-3 hrs
400 ppm	Frontal headache within 1-2 hrs, widespread within 3 hrs
800 ppm	Dizziness, nausea, convulsions within 45 mins, unconscious within 2 hrs



**Helpful information about CO Detectors**

Carbon monoxide alarms measure levels of CO over time and are designed to sound an alarm before an average, healthy adult would experience symptoms. It is very possible that you may not be experiencing symptoms when you hear the alarm. This does not mean that CO is not present.

-Carbon Monoxide Detectors DO NOT function as smoke detectors! Smoke Detectors DO NOT function as carbon monoxide detectors! Have both installed in your home.

-Use CO detectors that are officially listed by UL. Do not make a decision based on cost, look at different features that fit your home. Non-government organizations such as Consumers Union, the American Gas Association can help you make an informed decision.

-When installing follow the manufacture's recommendations for placement and maintenance.

-Treat ALL activations as real, get everyone out immediately. Leave the doors open on your way out to help with ventilation. Call 9-1-1 from a neighbors house. After your home is cleared have the activation checked by a professional.

-Test your CO detectors once a month, same as your smoke alarms.

-Replace the batteries every 6 months. Replace the CO detectors according to the manufacturer. (about every 5 yrs)



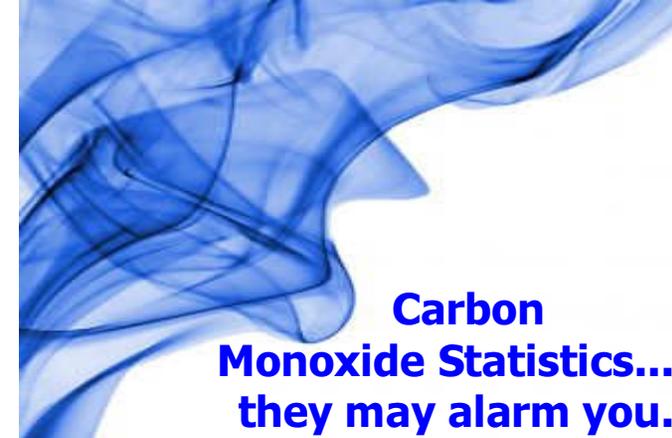
**The presence of a carbon monoxide alarm in your home can save your life in the event of CO buildup.**



**10 Tips to help keep you safe:**

1. Install at least one carbon monoxide alarm with an audible warning signal inside and outside individual bedrooms. Make sure the alarm has been evaluated by a nationally recognized laboratory, such as Underwriters Laboratories(UL)
2. Have a qualified professional check all fuel burning appliances, furnaces, venting & chimney systems at least once a year.
3. Never use your range or oven to help heat your home. Never use a charcoal grill or hibachi in your home or garage.
4. Never keep a car running in a garage. Even if the garage doors are open, normal circulation will not provide enough fresh air to reliably prevent a dangerous buildup of CO.
5. When purchasing an existing home, have a qualified technician evaluate the integrity of the heating and cooking systems, as well as the sealed spaces between the garage and house.
6. Have your chimney flue checked annually by a professional. Is it drawing properly? Was it fitted correctly? Are there any obstructions?
7. If you are a renter, ask for a safety certificate or at least proof the landlord has had the appliance checked by a professional. It is required by law that landlords do this annually. Ask the landlord to install a CO detector.
8. It is more common for people to be affected by CO poisoning during the winter months due to cold weather outside and people closing the house up to keep warm. This reduces the ventilation, increasing the risk of an accidental poisoning if you use incorrect methods to heat your home.
9. Never sleep in an unvented room using a gas or kerosene space heater. Never use any gasoline powered engines in any enclosed space.
10. Don't ignore symptoms, especially if more than one person is feeling them. You could lose consciousness and die if nothing is done.





## Carbon Monoxide Statistics... they may alarm you.

1. According to the Center for Disease Control and Prevention (CDC) more than 500 people die annually from accidental CO poisoning in the United States alone.
2. In the United States, they estimate 15,000 people are treated yearly for poisonings, however it is believed many more people are misdiagnosed or never seek medical care.
3. At low concentrations, CO can go undetected for a long time and contribute to nagging illnesses.
4. Often most exposures happen at home, a place families feel safe. Not realizing they may have a leak and be exposed easily.
5. Unfortunately, because the symptoms of CO poisoning are so similar to the flu, CO related health problems are misdiagnosed or ignored until it's too late.
6. Groups with the highest risk of severe illness or worse are pregnant women, infants, people with chronic heart problems, people with heart disease, anyone with anemia, and people who have any respiratory problems.
7. Don't forget, your pets are at risk too!

## Carbon Monoxide Poisoning

Some early symptoms of CO (carbon monoxide) poisoning, such as headaches, nausea, and fatigue, are often mistaken for the flu because the deadly gas goes undetected in a home. Prolonged exposure can lead to brain damage or even death.

### What you need to do if your CO alarm goes off...

#### **If no one is feeling ill:**

1. Silence the alarm.
2. Turn off all appliances and sources of combustion (i.e. furnace and fireplace).
3. Ventilate the house with fresh air by opening doors and windows.
4. Call a qualified professional to investigate the source of the possible CO buildup.

#### **If illness is a factor:**

1. Evacuate all occupants immediately.
2. Determine how many occupants are ill and determine their symptoms.
3. Call **9-1-1** and when relaying information to the dispatcher, tell them you suspect CO poisoning and include the number of people feeling ill.
4. Do not re-enter the home without the approval of a fire department representative.
5. Call a qualified professional to repair the source of the CO.



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# Monoxide



## Are YOU at Risk?

San Bernardino County  
Fire Department