



Poison HOTLINE

1-800-222-1222

January 2017

Did you know

You should replace your carbon monoxide alarm every five to seven years. When looking for a replacement alarm, look for the below symbol indicating it meets the Underwriters Laboratory testing standards.



CO alarms should be installed on each level of the home — located in hallways near sleeping areas but at least 15 feet away from fuel-burning appliances.

If the alarm sounds, get everyone into fresh air and call 911. Do not re-enter the home until it has been evaluated for CO. Regardless of whether or not symptoms of CO poisoning are present, never ignore the alarm and never remove the battery to stop the alarm.

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless gas produced by the incomplete burning of any carbon-containing substance. Sources of CO include house fires, furnaces, stoves, water heaters, fireplaces, vehicle exhaust, and methylene chloride. Hemoglobin has an affinity for CO more than 200 times greater than it does for oxygen. Because of this, CO impairs oxygen delivery and thus produces cellular hypoxia and ischemia.

The most common symptoms of CO poisoning are headache, dizziness, weakness, nausea, vomiting, chest pain, and confusion. CO symptoms are frequently mistaken for influenza, food poisoning, colic and gastroenteritis. Severe exposures can lead to loss of consciousness, cardiac ischemia, ventricular arrhythmias, metabolic acidosis, respiratory failure, seizures, and death.

Treatment includes removing the patient from the source of CO exposure, administering 100% oxygen, and determining if hyperbaric oxygen (HBO) therapy is indicated.

Reasonable indications for HBO:

- Coma, loss of consciousness or seizures at any time during the exposure.
- Mental status changes (Glasgow Coma Scale <15), abnormal neuro-psychological testing, focal neurological signs, abnormal cerebellar function or acute complaints of memory problems.
- Patient's age is greater than thirty-six (> 36) years old.
- CO exposure for longer than twenty-four (> 24) hours.
- Pregnancy with either fetal distress or any maternal symptoms.
- Metabolic acidosis due to CO exposure.
- Persistent symptoms despite several hours of 100% oxygen via face mask.
- Patients with active cardiac ischemia or CAD with CO level > 20% may be candidates for HBO *after* appropriate medical treatment for cardiac ischemia or myocardial infarction is accomplished.
- Asymptomatic adults: CO levels >25% to >40%.
- Asymptomatic pregnant women and asymptomatic children: CO levels >10% to >20%.

For treatment advice concerning CO, contact the IPCC at 1-800-222-1222.

*Sue Ringling RN, BSN, CSPI
Certified Specialist in Poison Information*

POISON
Help

1-800-222-1222

Hotline Editor: Kimberly Zellmer, PharmD; Deputy Editor: Edward Bottei, MD

Post and share this edition of **Poison Hotline** with your colleagues. Send comments or questions to Poison Hotline, 712-234-8775 (fax) or Tammy.Noble@UnityPoint.org. To subscribe or unsubscribe from this distribution list, contact the IPCC education office at 712-279-3717. Read past issues of **Poison Hotline** at www.iowapoison.org.