



Carbon Monoxide Poisoning is More Prevalent in Winter Months

Carbon Monoxide (CO) is an odorless, colorless, and toxic gas. Because it is impossible to see, taste, or smell the toxic fumes, CO can kill you before you are aware it is at your workplace or in your home. The effects of CO exposure can vary greatly from person to person depending on age, overall health, and the concentration and length of exposure:

Sources to include:

- Unvented kerosene and gas space heaters
- Leaking chimneys and furnaces
- Back-drafting from furnaces, gas water heaters, wood stoves, and fireplaces
- Gas stoves
- Generators and other gasoline powered equipment
- Automobile exhaust from attached garages
- Tobacco smoke
- Auto, truck, or bus exhaust from attached garages, nearby roads, or parking areas
- Incomplete oxidation during combustion in gas ranges, and unvented gas or kerosene heaters
- Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces)

Below is a chart that shows the different Carbon Monoxide Concentrations and the Inhalation Time and Symptoms. Note that 50 Parts Per Million is the maximum allowable exposure in any 8-hour period.

CO CONCENTRATION IN AIR	INHALATION TIME AND SYMPTOMS
9 ppm	ASHRAE maximum allowable concentration for short exposure in a living area.
50 ppm	Maximum allowable concentration for continuous exposure in any 8-hour period.
200 ppm	Headache, tiredness, dizziness and nausea after 2 to 3 hours.
400 ppm	Frontal headache within 1 to 2 hours and life threatening after 3 hours. Maximum allowable amount (air-free) in flue gases.
800 ppm	Dizziness, nausea and convulsions within 45 minutes. Unconsciousness within 2 hours. Death within 2 to 3 hours.
1,600 ppm	Headache, dizziness and nausea within 20 minutes. Death within 1 hour.
3,200 ppm	Headache, dizziness and nausea within 5 to 10 minutes. Death within 30 minutes.
6,400 ppm	Headache, dizziness and nausea within 1 to 2 minutes. Death within 10 to 15 minutes.
12,800 ppm	Death within 1 to 3 minutes.

During the winter months, many construction companies including those that work with cement or masonry are using heaters to keep their work areas warm for personal comfort or curing of the cement. OSHA says they should be monitoring these areas for low Oxygen or high Carbon Monoxide Concentrations. If you have workers working in these environments, Single-Gas Monitors are a solid option. The most common ones we sell are Carbon Monoxide Single-Gas Monitors.

We also have available a small Bump Test cylinder for Carbon Monoxide Bump Testing, which should be done before each use.

And don't forget about Carbon Monoxide Home Monitors for your personal home safety. Do you have them properly placed? Have you tested them recently?

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