

## Carbon Monoxide - The Silent Killer

Carbon monoxide (CO) is a poisonous, colorless, odorless, and tasteless gas. It has no detectable odor and is often mixed with other gases that do. Carbon monoxide can be inhaled without even knowing it.

CO is emitted from burning natural gas, gasoline, kerosene, oil, propane, coal, or wood. Forges, blast furnaces and coke ovens produce CO, but one of the most common sources of exposure is the internal combustion engine. CO can be found in the home.

**How does CO harm you?** When inhaled, carbon monoxide is harmful because it displaces oxygen in the blood. It deprives the heart, brain, and other vital organs of oxygen. Large amounts can overcome a person in minutes without warning. Someone inhaling CO can lose consciousness and suffocate. Symptoms can vary but may include chest pain, headache, fatigue, dizziness, drowsiness, or nausea. During prolonged exposure, symptoms can include vomiting, confusion, collapsing, loss of consciousness and muscle weakness. CO poisoning may occur sooner in young children, the elderly, people with lung or heart disease, people at high altitudes, or smokers. CO poses a greater risk to fetuses.

CO poisoning can be reversed if caught in time. Still, acute poisoning may result in permanent damage to the parts of your body that require a lot of oxygen such as the heart and brain. Significant reproductive risk is also linked to CO.

**Who is at risk?** People who work with acetylene or formaldehyde in boiler rooms, breweries, warehouses, petroleum refineries, pulp and paper production, and steel production; around docks, blast furnaces, or coke ovens are at risk. Others at risk include welders, mechanics, firefighters, diesel engine operator, marine terminal workers, toll booth or tunnel attendant, customs inspectors, law enforcement among others.

### What can you do if you suspect someone has been poisoned?

- Move the victim into fresh air.
- Call 911.
- Administer cardiopulmonary resuscitation if the victim has stopped breathing.

### What can employees do to help prevent CO poisoning?

- Report any situation that might cause CO to accumulate.
- Be alert to ventilation problems- especially in enclosed areas.
- Promptly report complaints of dizziness, drowsiness or nausea.
- Avoid overexertion if you suspect CO poisoning and leave the contaminated area.
- Tell your doctor that you may have been exposed to CO if you get sick.
- Avoid the use of gas-powered engines, such as those in powered washers, as well as heaters and forklifts while working in enclosed spaces.

### What are the OSHA standards for CO exposure?

The OSHA PEL is 50 parts per million (ppm). OSHA standards prohibit worker exposure to more than 50 parts of the gas per million parts of air averaged during an 8-hour time period.