

SAFETY TALKS

Carbon Monoxide

Carbon Monoxide

Carbon monoxide (CO) is a product of combustion. It is also the most common cause of occupational gas poisoning leading to death. It is hard to detect because it has no colour or odour and is especially dangerous in confined or poorly ventilated spaces.

Running an internal combustion engine indoors or in confined areas will quickly fill a workplace with dangerous levels of carbon monoxide. On a worksite there are many possible sources of carbon monoxide.

Carbon Monoxide Sources

- Gas-powered engines
- Fires
- Natural gas space heaters
- Furnaces
- Kilns
- Boilers
- Idling vehicles – next to fresh air intakes of a building

What's the Danger?

Carbon monoxide is harmful when breathed because it displaces oxygen in the blood and deprives the heart, brain and other vital organs of oxygen. Large amounts of CO can overcome you in minutes without warning causing you to lose consciousness and suffocate.

The symptoms develop depending on a few factors; how active the workers are, how long they have been exposed, and the concentration of carbon monoxide. Recognizing the symptoms of carbon monoxide poisoning may help in preventing fatalities.

Symptoms of Carbon Monoxide Poisoning



Severe

- Often fatal
- Rare recovery symptoms include
 - Memory loss
 - Poor coordination
 - Movement disorders
 - Depression
 - Psychosis



Moderate

- Confusion
- Unconsciousness
- Seizures
- Chest pain
- Shortness of breath
- Impaired judgment
- Low blood pressure
- Coma



Mild

- Headache
- Nausea
- Dizziness
- Vomiting
- Difficulty Concentrating
- Poor Condition
- Drowsiness

Carbon monoxide poisoning can be reversed if caught in time. However, even if you recover, 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.



Safety Tips

- ✓ Report any situation to your immediate supervisor that might cause CO to accumulate.
- ✓ Be alert to ventilation problems especially in enclosed areas where gases of burning fuels may be released.
- ✓ Report promptly 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.
- ✓ Ensure all CO detectors are not blocked or tampered. If the alarm goes off, it is critical that you get to fresh air as soon as possible.
- ✓ Ensure commercial CO detectors are inspected and calibrated annually by a 3rd party qualified provider.
- ✓ Inspect exhaust hoses regularly for leaks and defects.
- ✓ Use personal monitors and available personal protective equipment, if required

Demonstrate

Ensure regular inspections are being completed on carbon monoxide sources and detectors in the workplace.

Post appropriate warning signs in areas where significant exposures of CO are likely to occur.

Run a sound test of the CO alarm to ensure workers are aware of what to listen for in the event of a potential exposure.

Discussion

Review common sources of CO poisoning in the workplace.

Discuss with workers the symptoms of CO poisoning to look out for.

Discuss the importance of the carbon monoxide detector. Go over evacuation plan for any potential CO leaks that could threaten the health of the workers.



Manitoba Workplace Safety and Health Act and Regulation

Part 4 - General Workplace Requirements - Subsection 4.1 - Air Quality and Ventilation

Workers Involved in this Safety Talk

Date: _____

Name	Signature

Name	Signature

Notes

Please contact S2SA with any questions or concerns!

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