

Carbon Monoxide Poisoning

What is carbon monoxide (CO)?

Carbon monoxide (CO) is a colorless, odorless, tasteless gas. It is produced by burning materials such as natural gas, gasoline, kerosene, oil, propane, coal, or wood. Any gas appliance has the potential to produce CO, which can quickly build up to harmful levels. Breathing CO can cause nausea, dizziness, or headache. If anyone is experiencing these symptoms and CO poisoning is suspected, immediately move them to fresh air and seek medical attention. Severe CO poisoning can result in brain damage, heart damage, or death.

Why CO poses a unique danger in schools ?

- Children are more susceptible to CO poisoning because they have higher metabolic and respiratory rates.
- Children are vulnerable to the effects of CO because their bodies are usually smaller. They may develop exposure symptoms before adults.

What are the symptoms of CO poisoning?

- Headache
- Dizziness
- Fatigue
- Nausea
- Vomiting
- Shortness of breath
- Chest pain
- Weakness
- Confusion
- Loss of consciousness

Exposure to high levels of CO can be fatal.

What are the potential sources of CO in schools?

- Heating systems (e.g., HVAC – natural gas, propane, and oil fired equipment)
- Gas appliances (e.g., ranges, ovens) found in kitchens and cafeterias
- Gas clothes dryers
- Gas hot water heaters and boilers
- Vehicles left running in a partially enclosed loading dock
- Use of fuel-powered tools/equipment in a

school building (e.g., by janitorial staff, in shop classes)

The danger of students and school personnel being exposed to CO is influenced by the proximity of people to the source of CO and the design of the school buildings heating cooling and ventilation system (HVAC).

How can a school protect its students, faculty, and staff from CO?

- Install CO detectors in classrooms, hallways, maintenance areas, and boiler rooms. Detector installation will depend on your school building design and its HVAC system- you may need to contact a professional.
- Develop a CO emergency evacuation and response plan.
- In case of a CO emergency, follow your fire drill evacuation procedures to move everyone outside.
- Perform preventive maintenance checks on your HVAC system and CO detectors.

If you suspect carbon monoxide poisoning, immediately go outside to get fresh air and call 911.

As of January 1, 2013, carbon monoxide poisoning is a Reportable Event in Tennessee.

Communicable and Environmental Diseases
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615-741-7247 or 1-800-404-3006
<https://apps.health.tn.gov/ReportableDiseases/>