



Campus Safety

Carbon Monoxide Poisoning From Small Gasoline Engines



Carbon Monoxide Poisoning occurs after the inhalation of carbon monoxide (CO). This highly toxic, colorless, odorless gas is often fatal before the source is discovered. All gasoline-powered engines can produce carbon monoxide. This silent killer can be found from operating motor vehicles, lawn equipment, pressure washers, and portable generators within enclosed or semi-enclosed areas.

A small engine can produce deadly lethal Carbon Monoxide poisoning, and oftentimes a person does not realize they are being exposed. Reports of using pressure washers inside of buildings and running a vehicle in a parking garage have led to carbon monoxide illness and death.

In an effort to avoid this type of preventable accident, it will be important for you to understand how to prevent you and your coworkers from becoming a victim of carbon monoxide poisoning by following these simple prevention measures:

Prevention Measures

- Do not operate machinery with gasoline engines inside any building or semi-enclosed spaces.
- Warning notices in operating manuals advise that gasoline-powered equipment should not be used without adequate ventilation. However, it may be difficult to determine how much ventilation is adequate; therefore, avoid operating the equipment inside buildings.
- Remember small engines can produce deadly levels of carbon monoxide.
- Read the machinery operator manual. If you do not know where the manual is located, you can contact the manufacturer or the supplier for replacement. Using the internet can assist you in locating a manual (know the manufacturer and model number).
- Carbon monoxide poisoning strikes quickly and sometimes without warning. Confusion, headaches, dizziness, and fatigue can occur too quickly and overcome you before you get a chance to recognize it.
- Carbon monoxide poisoning can cause permanent brain damage.

- Where carbon monoxide-producing machinery is located, it is important that carbon monoxide detectors be properly placed in or near the areas where the equipment is operated. These devices will give off an audio warning before ill-health effects occur.
- Inspect the equipment for exhaust leaks, engine not performing correctly, low oil or too much oil, etc.
- Use mechanical ventilation fans when utilizing small engines within a semi-confined space.



Inventory and know what devices you may have that can produce CO and properly label them. This would include:

- Portable Generators
- Leaf Blowers
- Lawn Mowers
- Gas Grills
- Charcoal Grills
- Gas Furnaces
- Gasoline Golf Carts
- Portable Camping Stoves
- Golf Carts/Motor Vehicles



Training—do not permit untrained workers to operate equipment.

- Equipment Operators Manual: Operational and Safety Features must be understood by the supervisor and anyone operating the device.
- Safety Warnings / Warning Labels: Review the equipment safety guards and hazardous components, such as gas tanks, mufflers, and electrical components.
- Never use CO-producing devices indoors or in confined spaces.

Maintenance—proper installation, operation and maintenance of fuel-burning devices and appliances will reduce the risk of CO poisoning. Follow manufacturer's recommendations for servicing these devices, and investigate all warning signs, such as poor performance, unusual odors or burning smells.

