Carbon Monoxide

You cannot taste, smell or see it. It will not irritate you, but high levels can kill you.

Carbon monoxide is a poisonous gas given off when fuel is not completely burnt. The most common sources are:

- gasoline, diesel or LPG engines
- burning wood, coal, kerosene, other fuels
- cigarettes and cigars
- burning plastic
- welding

Commonly contaminated areas include:

- confined spaces around portable engines
- automobile workshops
- foundries
- rooms with poorly drafted fires
- enclosed, poorly ventilated car-parks
- poorly ventilated rooms or areas where forklifts or other industrial type vehicles are used

Short Term Effects
The main short term danger is that a person may unexpectedly lose consciousness and inhale enough gas to cause long term damage or death.

Excessive exposure to high levels of carbon monoxide can cause:

- headache
- dizziness
- nausea
- weakness
- mental confusion
- hallucinations
- cyanosis (de-oxygenated blood)
- unconsciousness
- death

Long Term Effects
Long term low exposure will lower the blood's capacity to carry oxygen and can:

- make some heart conditions worse
- make some blood disorders worse
- cause severe migraine-type headaches

Recovery
If an unconscious victim is promptly removed from exposure, recovery is usually complete. It takes several hours for the body to eliminate the carbon monoxide from the blood. Severe exposure may lead to permanent ill effects and death.
Employers

- Do not allow petrol, diesel or LPG engines to be used in confined spaces.
- If an engine must be run in an enclosed area, use an extraction system fitted to the exhaust pipe.
- Ensure there are adequate extraction systems and plenty of fresh air.
- Buy equipment with proper exhaust emission controls and ensure engines are well tuned to minimize carbon monoxide emissions.
- It may be necessary to monitor carbon monoxide levels. If dangerous levels are likely, provide respiratory protection suitable for the exposure levels.
- Train staff to use safe systems of work and identify potential problems.

Employees

- Employees should use the extraction systems provided, follow safety instructions and avoid leaving engines running unnecessarily.
- As an employee, you must also report to your employer and your safety and health representative (where elected), any sign of carbon monoxide exposure or any situation you think might lead to carbon monoxide exposure.
- Employees should wear respiratory equipment when carbon monoxide reaches dangerous levels.

Attention Smokers

Smokers can be exposed to high levels of carbon monoxide by smoking. This will add to the effects of carbon monoxide exposure in the workplace.

First Aid

DO NOT BECOME A VICTIM
GET HELP
ALWAYS WEAR AN AIR-SUPPLIED RESPIRATOR WHEN RESCUING A COLLAPSED PERSON FROM AN ENCLOSED AREA OR TANK.

- Remove the patient to fresh air and give oxygen if available.
- If the patient's breathing has stopped, give mouth to mouth resuscitation. If there is no pulse, apply cardiac massage. Both of these need skilled training.
- It is important to get the patient to a doctor as soon as possible.