

CARBON MONOXIDE

Also known as: Carbonic Oxide, Flue Gas, Carbon Oxide, CO
Chemical reference number (CAS): 630-08-0

WHAT IS CARBON MONOXIDE?

Carbon monoxide is an extremely hazardous gas with no odor, color, or taste. Carbon monoxide can be formed from incomplete burning of gasoline, wood, kerosene or other fuels.

Carbon monoxide is also found in cigarette smoke and vehicle exhaust. In homes, carbon monoxide can build up from poorly vented or malfunctioning heater, furnace, range or any appliance that runs on natural gas or oil.

Carbon monoxide is the most common cause of fatal poisonings. It's strongly recommended that all homes be equipped with a carbon monoxide (CO) detector.

HOW ARE PEOPLE EXPOSED TO CARBON MONOXIDE?

People may be exposed to dangerous levels of carbon monoxide (CO) when charcoal, gas, oil, or wood are burned in a poorly ventilated area. Breathing automobile exhaust in a confined area can also result in carbon monoxide exposure. Enclosed garages can be quickly engulfed in CO if automobiles are left idling in side. Furthermore, people who ride inside enclosed pick-up truck beds may become exposed to CO. Tobacco smoke also contains carbon monoxide.

Roughly 50% of all carbon monoxide poisonings occur in the home, 40% are automobile related, and 10% occur in work settings.

HOW TO AVOID EXPSOURE

- Have your furnace, gas stove, and fireplace checked annually by a qualified professional. Have the professional check for proper ventilation and function.
- All homes should be equipped with carbon monoxide detectors. Carbon monoxide detectors function similarly to smoke detectors and are available at most hardware stores.
- Make sure the exhaust system on your automobile is in good working condition.
- Do not ride inside campers or trailers that are being towed by another vehicle.
- Never run an engine in an enclosed space, such as a garage. This includes cars, snowmobiles, generators, or lawn mowers.
- Never use a gas oven to heat a home.
- Never use a charcoal grill indoors.

WILL EXPOSURE TO CARBON MONOXIDE RESULT IN HARMFUL HEALTH EFFECTS?

Exposure to low levels of carbon monoxide can produce the following symptoms:

- Throbbing headache,
- Dizziness,
- Fatigue, and
- Shortness of breath.

Exposure to high levels can result in the following:

- Severe headache,
- Weakness,
- Dizziness and Nausea,
- Irregular heartbeat and unconsciousness.
- Occasionally, these symptoms may be confused with symptoms of the flu.

Exposure to very high levels of carbon monoxide can cause seizures, coma, respiratory failure, and death.

Exposure to high carbon monoxide levels during pregnancy is associated with birth defects and fetal death.

In addition to the toxic effects of carbon monoxide, the gas is very flammable and high concentrations may be explosive.

In general, chemicals affect the same organ systems in all people who are exposed. However, the seriousness of the effects may vary from person to person.

A person's reaction depends on several things, including individual health, heredity, previous exposure to chemicals including medicines, and personal habits such as smoking or drinking.

It's also important to consider the length of exposure to the chemical.

CAN A MEDICAL TEST DETERMINE EXPOSURE TO CARBON MONOXIDE?

Carbon monoxide is eliminated from the body over a period of hours. Although carbon monoxide levels can be measured in exhaled breath, urine, blood and other tissues, no reliable method exists to determine the level of your exposure.

Carbon monoxide can be formed in the body following exposure to other substances, so levels detected cannot always be attributed to carbon monoxide exposure. Your doctor can use tests of EKG, MRI, CT Scan and electrolytes to evaluate the health effects of carbon monoxide exposure.

If you suspect carbon monoxide exposure, take immediate action. Call your local fire department and move everyone outdoors into fresh air.

Seek medical advice if you have any symptoms that you think may be related to chemical exposure.

This fact sheet summarizes information about this chemical and is not a complete listing of all possible effects. It does not refer to work exposure or emergency situations.

FOR MORE INFORMATION

- Poison Control Center, 800-222-1222
- Your local public health agency
- Division of Public Health, BEOH, 1 West Wilson Street, Rm. 150, Madison, WI 53701-2659, (608) 266-1120 or Internet: <http://dhfs.wisconsin.gov/eh>

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