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Carbon Monoxide poisoning!

Carbon monoxide is often referred to as CO, which is its chemical symbol. Unlike many gases, CO has no odor, color, or taste, and it doesn't irritate your skin.

Red blood cells pick up CO quicker than they pick up oxygen. If there is a lot of CO in the air, your body may replace oxygen in your blood with CO. This blocks oxygen from getting into your body, which can damage tissues in your body and can kill you. Knowing where CO is found and how to avoid it can protect you from serious injury or death.

COLD WEATHER INCREASES CARBON MONOXIDE HAZARDS FROM CARS

In cold weather, do you start the car to let it warm up for a minute or two before driving away?

Deadly fumes from vehicle exhaust include carbon monoxide (CO), a colorless, odorless, tasteless, and non-irritating byproduct of incomplete combustion. A forensic scientist, Greiner has consulted on and investigated several cases of poisoning from car fumes, some resulting in death.

"When cold engines first start, they run rich," Greiner said. The catalytic converter is cold and not converting deadly carbon monoxide (CO) to carbon dioxide (CO₂). Concentrations in the exhaust can be more than 80,000 parts per million. In the cold countries, concentrations are so large that they fill the garage with carbon monoxide in a very short time even with the door open. Once the car is backed out of the garage and the garage door closed, large concentrations of gas still remain trapped in the garage. In a house built with an attached garage, part of the gas then seeps into the house where it remains for hours.

Carbon monoxide reduces the oxygen supply to the brain, causing carbon monoxide intoxication. At high concentrations, such as produced in the exhaust of a cold engine, carbon monoxide intoxication occurs in only a few minutes, leaving those poisoned incapable of realizing they are poisoned, and unable to protect themselves. Carbon monoxide poisoning can happen to anyone, although children, the elderly and those with health concerns are especially susceptible.

What is going on in the body?

CO is produced when a fuel is burned. Fuels include gas, oil, kerosene, charcoal, or wood. CO may be found in a number of items that people come in contact with each day.

These include:

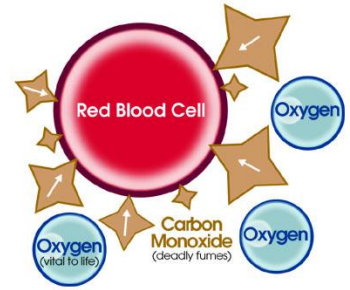
- leaking exhaust systems from internal-combustion engines or motor-powered vehicles
- faulty gas stoves or heating systems without good ventilation
- fires
- factories
- cigarette smoking, or breathing in secondhand smoke

If fresh air is limited and CO is released in the air, it can reach a dangerously high level. When CO is inhaled, it enters the bloodstream and attaches to a blood cell protein called haemoglobin. Haemoglobin helps blood cells carry oxygen from the lungs to the rest of the body. If CO attaches to haemoglobin, the blood cells can't carry oxygen. The body then can't function in a healthy way.

What are the signs and symptoms of the condition?

Symptoms linked with CO poisoning include:

- a cherry-red skin color due to the mixture of hemoglobin and CO in the blood
- [confusion](#)
- dilated pupils and [visual impairments](#)
- [dizziness](#)
- [headache](#)
- a heartbeat that is either [too fast](#) or [too slow](#)
- muscle spasms, paralysis, twitching, or convulsions • muscle [weakness](#) • [nausea](#) and [vomiting](#)
- palpitations, which is when a person can feel the heart beating in the chest
- [ringing in the ears](#)
- trouble breathing, called [shortness of breath](#)
- loss of consciousness, known as [coma](#)



What are the causes and risks of the condition?

CO poisoning can occur when small amounts of CO are inhaled over a long time. It can also occur when large amounts of CO are absorbed over a short time, especially in a closed setting such as a garage or car.

What can be done to prevent the condition?

Since CO is odorless and colorless, a person may not realize he or she is around harmful levels of CO. The following actions can help prevent CO poisoning:

- keep appliances in proper working order
- use appliances in the right way and have them checked regularly
- make sure there is lots of fresh air before using gas-powered engines or chemicals such as paint remover
- never leave a car in idle when it is inside a garage
- don't sleep in a room with a gas or kerosene space heater if it is not properly vented
- move into a well-ventilated area if any CO poisoning symptoms develop
- call the local gas company if there is a suspected gas leak in the home