

# CARBON MONOXIDE POISONING

## Overview

Carbon monoxide poisoning occurs when carbon monoxide builds up in the blood. When too much carbon monoxide is in the air, the body replaces the oxygen in the red blood cells with carbon monoxide. This can lead to serious tissue damage, or even death.

Carbon monoxide is gas that has no odor, taste, or color. Burning fuels, including gas, wood, propane, or charcoal, make carbon monoxide. Appliances and engines that aren't well vented can cause the gas to build up to dangerous levels. A tightly enclosed space makes the buildup worse.

Anyone exposed to carbon monoxide needs to get into fresh air and seek medical care right away. Call emergency medical services (EMS) or dial 911 right away for someone who's in a coma or can't respond.

## Symptoms

Carbon monoxide poisoning affects the brain and heart the most. Exposure over time might lead to symptoms that can be mistaken for the flu without the fever. Clearer symptoms of carbon monoxide poisoning can include:

- Headache.
- Weakness.
- Dizziness.
- Nausea or vomiting.
- Shortness of breath.
- Confusion.
- Blurred vision.
- Drowsiness.
- Loss of muscle control.
- Loss of consciousness.

Symptoms related to the nervous system and brain can come on after recovery from carbon monoxide poisoning. The risk of these is higher in people who lost consciousness from the carbon monoxide and older people. Symptoms might include:

- Memory loss.
- Personality changes.
- Movement problems.

Carbon monoxide poisoning can be especially dangerous for people who are asleep, drugged, or drunk. Carbon monoxide can cause brain damage or death before anyone realizes there's a problem.

## When To See A Doctor

For possible carbon monoxide poisoning, get into fresh air and seek medical care right away.

## Causes

Many fuel-burning products and engines make carbon monoxide. Most often the amount of carbon monoxide from these sources isn't cause for worry in areas with good air flow. But if they're used in a partly closed or closed space, the carbon monoxide level can be a danger. Examples are using a charcoal grill indoors or a running car inside a garage.

Breathing the fumes causes carbon monoxide to replace oxygen in the blood. This prevents oxygen from getting to tissues and organs.

Breathing in smoke during a fire can also cause carbon monoxide poisoning. And smoking through a water pipe, called a hookah, has been linked to increasing numbers of younger people getting carbon monoxide poisoning.

## Risk Factors

Breathing in carbon monoxide can be especially dangerous for:

- **Unborn babies.** Fetal blood cells take up carbon monoxide more easily than adult blood cells do.
- **Infants and children.** Young children take breaths more often than adults do.
- **Older adults.** Older people who have carbon monoxide poisoning may be more likely to get brain damage.

## Prevention

To help prevent carbon monoxide poisoning:

- **Have carbon monoxide detectors in the home.** Put them near each sleeping area on every level of the house. Check the batteries at least twice a year at the same time as checking the smoke detector batteries.  
If the alarm sounds, believe it! Leave the house and call 911 or the fire department. Carbon monoxide detectors are also made for motor homes and boats.
- **Open the garage door before starting the car.** Never leave a car running in the garage, especially if the garage is attached to the house. That's true even if the garage door is open.
- **Use gas appliances only as intended.** Never use a gas stove or oven for heat. Use gas camp stoves outdoors only. Use fuel-burning space heaters only when someone is awake to keep an eye on them and doors or windows are open. Don't run a generator in an enclosed space, such as the basement or garage.
- **Make sure there's space around fuel-burning appliances and engines.** These include all gas appliances, space heaters and wood-burning stoves. Make sure they're vented properly.  
Have professionals set up all gas, oil or coal-burning appliances. Have a qualified service-provider service them yearly.
- **Keep fireplaces in good condition.** Clean the fireplace chimney and flue every year.
- **Keep vents and chimneys unblocked during remodeling.** Check that they aren't covered by tarps or debris.
- **Do repairs before returning to where the poisoning occurred.** If carbon monoxide poisoning has occurred in the home, find and repair the source of the carbon monoxide before staying there again. Have a qualified service person check and repair any appliances that might have caused the leak.

**For More Information -** <https://www.mayoclinic.org/diseases-conditions/carbon-monoxide/symptoms-causes/syc-20370642>