

Carbon Monoxide Poisoning

Carbon monoxide is a colorless, odorless gas that is toxic (poisonous) to humans. Carbon monoxide (abbreviated CO) is produced when gasoline, natural gas, or other fuels are burned. At home, faulty furnaces or blocked ventilation systems can quickly lead to deadly levels of CO. Some simple safety tips can help protect your family against CO poisoning.

What is carbon monoxide poisoning?

Carbon monoxide is one of the most common air pollutants because it is produced when nearly any type of fuel is burned. Its chemical abbreviation is CO. When CO is allowed to build up in enclosed spaces—such as in a home, garage, or car—it can quickly reach deadly levels.

Carbon monoxide is generated by cars or other gasoline engines, by gas stoves and furnaces, and by wood or charcoal fires. Carbon monoxide is a silent killer because you can't see it or smell it. Victims may drop off to sleep and never wake up. If your child or others in your family have been exposed to high levels of CO, immediate treatment may be needed. Regular safety inspections and other precautions can prevent accidental CO poisoning.

What does it look like?

Initial symptoms of carbon monoxide poisoning are similar to those of other flu-like illnesses, including:

- Dizziness.
- Fatigue: being tired without a good reason.
- Headache.
- Nausea.



More specific signs of CO poisoning include:

- Absence of other flu-like symptoms, such as fever or sore throat.
- Feeling better once you get fresh air.
- Having other people in the room developing the same symptoms at the same time.

As CO levels rise, more obvious symptoms may appear, such as:

- Worsening headaches.
- Weakness, severe tiredness.
- Vision problems.
- Seizures (uncontrolled body movements).

- Shortness of breath.
- Confusion.
- Victims may also simply fall asleep without experiencing any symptoms. In this situation, people may die without regaining consciousness.

What causes carbon monoxide poisoning?

- Anything that burns carbon fuels produces carbon monoxide gas. Common sources are cars and trucks, gas stoves and furnaces, kerosene-burning heaters and lanterns, wood-burning stoves and fireplaces, and charcoal fires. Methylene chloride, which is used in paint removers and other solvents, can cause CO poisoning if the fumes are inhaled over a long time.
- If CO gas is allowed to collect indoors, toxic levels can build up quickly. This may happen when:
 - A fireplace or chimney flue is blocked.
 - A furnace ventilation system is leaky.
 - A fuel-burning heater or kitchen stove is used for indoor heat.
 - Gasoline-powered engines are run indoors or without proper ventilation.

This is just a partial list—many other situations may lead to accidental CO poisoning!

What are some possible complications of carbon monoxide poisoning?

- Carbon monoxide poisoning can rapidly cause death.
- Survivors may have permanent damage to the brain and nervous system.

What puts your child at risk of carbon monoxide poisoning?

- Any of the situations listed above may rapidly lead to toxic levels of CO.
- Infants and young children can be more rapidly harmed by the toxic effects of CO gas. People with certain heart, lung, and blood diseases are also at higher risk of harm.

Can carbon monoxide poisoning be prevented?

- Make sure stoves, furnaces, water heaters, dryers, and other natural gas-burning appliances are properly installed and ventilated.

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- Get regular yearly inspections of your furnace and other home appliances and of your car's exhaust system.
- Never use a kitchen stove for heat. If you must use a fuel-burning space heater indoors, make sure it is properly ventilated. Don't go to sleep while a fuel-burning space heater is operating.
- Never use a charcoal grill, camping stove, or similar devices for cooking indoors. Don't run gas-powered generators or engines indoors.
- Never leave your car's engine running in a garage or other enclosed space. Toxic CO levels can build up even if the garage door is open.
- Install carbon monoxide alarms in your home.

How is carbon monoxide poisoning treated?

 If you think there may be a carbon monoxide problem in your home or other enclosed space, *get out! Go outside as quickly as you can.* Because the initial symptoms are vague, CO poisoning may be unrecognized at first. Several people in the same room suddenly feeling ill or woozy or falling asleep may be a warning sign.

Get medical attention as soon as possible. If symptoms are present, call 911 or go to the nearest emergency room. 

- In the hospital, treatment will include:
 - Blood tests to determine how severe the CO poisoning is.
 - Oxygen to help eliminate CO from the bloodstream. In severe cases, the patient may be put in an "oxygen room" for administration of very high levels of oxygen (hyperbaric oxygen therapy).
- As the patient recovers, signs of damage to the brain or nervous system may be apparent. Some of these complications are permanent. Others may get better, especially if treatment is started as soon as possible.
- If CO poisoning has occurred as a suicide attempt, psychiatric and other treatment may be needed for the patient.
- After the incident, repair work may be needed to identify and correct the source of the CO (for example, an improperly ventilated furnace).

When should I call your office?

Call our office if any signs of CO poisoning occur.