

## What Is Carbon Monoxide?

Carbon monoxide (CO) is a colorless, odorless, and tasteless gas that forms any time fuels like methane gas, propane, gasoline, or wood are burned. Because it can't be seen or smelled, it can build up indoors without warning—and cause serious harm before anyone realizes there's a problem.



## Why It Matters

Carbon monoxide poisoning sends over [100,000 people](#) to the emergency room each year in the U.S. and causes more than 1,200 deaths annually. But those numbers don't reflect the full scale of the problem. Chronic exposure is harder to track, often goes undiagnosed, and may be contributing to long-term health conditions in thousands of people.

Raising awareness and improving standards—like requiring lower-threshold CO alarms & phasing out gas-burning appliances—are critical steps in reducing harm.

## A Hidden Risk in the Home

Carbon monoxide is released by many everyday gas-powered equipment—especially if they're old, poorly ventilated, or malfunctioning. Gas stoves, furnaces, water heaters, fireplaces, clothes dryers, and even vehicles left running in attached garages are all common sources.

Although exposures can be fatal, the vast majority—[around 95%](#)—are non-fatal. However, that doesn't mean they're harmless. Low-level CO exposure over time has been linked to serious health harms including cognitive issues, developmental delays in children, and long-term damage to the heart and nervous system.

However, symptoms of low-level exposure can vary widely and often appear similar to the flu - fatigue, dizziness, confusion or nausea - and are therefore often misdiagnosed or overlooked entirely. In fact, carbon monoxide is so difficult to diagnose medically that it has earned the nickname "[the clinical chameleon](#)."

## Who Is Most at Risk?

While carbon monoxide can affect anyone, it's particularly dangerous for infants, older adults, pregnant women, and people with conditions like heart disease, anemia, or asthma. Pets, who are smaller and breathe faster, are also highly vulnerable. People living in homes with aging appliances or without proper ventilation—often in low-income or [marginalized communities](#)—face a significantly higher risk.

## The Problem with Standard CO Alarms

Most U.S. households rely on basic CO detectors, which are critical for catching life-threatening levels of carbon monoxide. However, these alarms are not designed to detect lower-level exposures that can still cause harm.

For example, while the [World Health Organization](#) recommends a limit of just 4 parts per million (ppm) over 24 hours, many U.S. alarms are set to go off only at levels above [70 ppm](#)—17 times higher. This means a low-level leak could go undetected for days or weeks, causing health problems without ever triggering an alarm.

## How to Protect Yourself and Your Family

**Prevention is key.** The best defense against carbon monoxide exposure is awareness, regular maintenance, and making safer choices around appliances and fuel use.

Start by ensuring that all gas-burning appliances—like furnaces, water heaters, and stoves—are inspected by a qualified professional at least once a year. If you're buying or moving into a new home, include CO risk in your inspection checklist.



Install a carbon monoxide alarm on each floor of your home, especially near sleeping areas and fuel-burning appliances. Test alarms regularly, change batteries as needed, and replace units every [5 to 7 years](#) based on manufacturer recommendations. Never use a gas oven to heat your home, and never run a gas-powered generator indoors or near open windows. If you have an attached garage, always turn off your car when parked, even if the garage door is open.

## What to Do If You Suspect CO Poisoning

If your CO alarm sounds or you suspect a carbon monoxide leak:

1. Leave the building immediately—bring pets and others with you.
2. Call 911 or your local fire department from a safe location.
3. Do not re-enter the building until emergency responders say it's safe.
4. Seek medical care immediately. Blood tests for carbon monoxide must be done within hours to confirm exposure.

---

### Sources

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4733068/>

<https://www.cdc.gov/co/faqs.htm>

<https://www.nea.org.uk/publications/understanding-carbon-monoxide-rise-in-households-vulnerable-to-fuel-poverty/>

<https://apps.who.int/iris/handle/10665/345329>

<https://standardscatalog.ui.com/ProductDetail.aspx?productId=UI2034>

<https://www.ncoaa.us/preventive-measures>