



**U.S. ARMY COMBAT READINESS CENTER**

4905 Ruf Ave. Fort Rucker, AL 36362-5363  
Comm. (334) 255-3770 Fax (334) 255-2609  
<https://safety.army.mil>

# **READY** **...OR NOT?**

## **Carbon monoxide: the invisible killer**

**Art Powell**

**Directorate of Communication and Public Affairs  
U.S. Army Combat Readiness Center**

You can't smell it, you can't taste it, you can't see it — but it can kill you.

"It" is carbon monoxide, a gas formed from the incomplete burning of various fuels including coal, wood, charcoal, oil, kerosene, propane and natural gas. Products and equipment powered by internal combustion engines such as portable generators, cars, lawn mowers and power washers also produce CO.

"Since you can't see or smell CO, that's why it's called the 'invisible killer,'" said Patty Davis of the Consumer Product Safety Commission. "To guard against the danger, CPSC recommends consumers have a professional inspection of all fuel-burning appliances each year, including furnaces and fireplaces."

Installing and maintaining CO alarms is a critical step everyone can take to help ensure their safety.

"Make sure to have working CO alarms on every level of your home and outside each separate sleeping area," recommended Davis. "These alarms are designed to alert you before potentially life-threatening levels of carbon monoxide are reached and give you time to escape."

If you choose a plug-in type CO alarm, make sure it also has a battery backup. This ensures the alarm will continue to work if the electricity goes out, which is particularly important in many situations when portable generators are used. Replace batteries according to the manufacturer's recommendations, and test alarms once a month to confirm they are working.

"Almost all homes have at least one smoke alarm," Davis said. "However, CO alarms are much less common. The most recent American Housing Survey asked if households had a working carbon monoxide alarm, and only two out of five said yes."

According to the CPSC, about 170 people in the United States die annually from CO produced by non-automotive consumer products. These products include malfunctioning fuel-burning appliances such as furnaces, ranges, water heaters and room heaters; engine-powered equipment such as portable generators; fireplaces; and charcoal burned in homes and other enclosed areas.

In 2005 alone, CPSC staff is aware of at least 94 generator-related CO poisoning deaths. Half occurred during power outages due to severe weather, including Hurricane Katrina. Still others die from CO produced by non-consumer products such as cars left running in attached garages.

Because CO is undetectable to human senses, victims may not know they are being exposed. Initial symptoms of low to moderate CO poisoning are similar to the flu (but without the fever): headache, fatigue, shortness of breath, nausea and dizziness.

High-level CO poisoning results in progressively more severe symptoms including mental confusion, vomiting, loss of muscle coordination and consciousness, and ultimately death. Symptom severity is related to both CO level and duration of exposure.

To help prevent CO poisoning, ensure appliances are installed and operated according to manufacturer's specifications and local building codes; never service fuel-burning appliances without proper knowledge, skill and tools; and always refer to the owner's manual when performing minor adjustments or servicing fuel-burning equipment.

Also, never operate a portable generator or other gasoline-powered tool either in or near an enclosed space such as a garage, house or other building.

For more information on seasonal safety, visit <https://safety.army.mil>.