

# VOLTS News

## Valuing Our Lives Through Safety

January 2024—Volume 122

## VOLTS Data Report for December

Total Observations: 282  
IPSC Emp. Contact Rate: 0.9  
Total Safe Behaviors: 2,379  
Total At-Risk Behaviors: 11

Sub for Santa Donation: \$673

### Top 3 Safe Behaviors

- Focus on Task (250)
- Required PPE (240)
- Eyes on Path (207)

### Top 3 At-Risk Exposures

- Ascending/Descending (3)
- Respiratory (2)
- Tool Select./Condition (1)

## VOLTS Steering Committee Members

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## Invisible Threats: Unveiling the Dangers of Carbon Monoxide by Casey Draper



**Real Stories, Real Impact: 22 transported to hospital for carbon monoxide poisoning in Sevier County, December 31, 2023**

Welcome to the latest edition of the VOLTS Safety Newsletter. This month's focus is insights, awareness, and solutions to make your surroundings safer from the invisible threat of carbon monoxide (CO).

### **Understanding Carbon Monoxide Poisoning: The Invisible Killer**

Carbon monoxide (CO) poisoning occurs when an individual inhales an excessive amount of carbon monoxide gas. CO is a colorless, odorless, and tasteless gas, making it difficult to detect without specialized equipment. It is produced when fossil fuels such as coal, natural gas, oil, and wood are burned incompletely. CO poisoning causes thousands of emergency room visits and hundreds of deaths each year in North America. Since CO is an odorless gas that often goes undetected, victims can be caught off guard in their sleep.

### **Top 5 Sources of Carbon Monoxide Poisoning:**

1. **Home Appliances:** Furnaces, water heaters, gas stoves, and other appliances that use fossil fuels
2. **Automobiles:** Running a car in an enclosed space, such as a closed garage
3. **Generators:** Operating generators indoors or in a poorly ventilated area
4. **Fireplaces and Wood-burning Stoves:** Incomplete combustion in wood-burning appliances
5. **Blocked Ventilation Systems:** Poorly maintained or blocked chimneys, vents, or flues

### **How Carbon Monoxide Affects the Body—Severity of Exposure:**

When inhaled, CO prevents the normal carrying of oxygen by the red blood cells, reducing the blood's ability to carry oxygen to vital organs and tissue. This lack of oxygen can lead to cellular damage,

# Invisible Threats: Unveiling the Dangers of Carbon Monoxide

by Casey Draper (cont.)

particularly in organs with high oxygen requirements—such as the brain and heart. Long exposure, even to low levels of gas, can cause dramatic effects.

- **Acute Exposure:** High levels of CO exposure over a short period can lead to severe symptoms, unconsciousness, and death.
- **Chronic Exposure:** Low levels of CO exposure over an extended period can lead to persistent symptoms, such as headaches and fatigue, and may have negative long-term health effects.

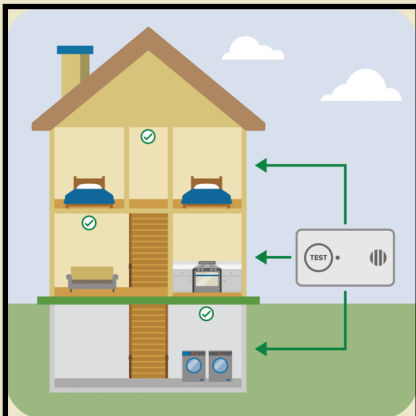
The signs and symptoms of CO poisoning are deceptive because they can resemble those of the flu but may include:

- Headache, especially “a band around the head”
- Dizziness
- Breathing difficulty
- Nausea
- Central Cyanosis (the appearance of a bluish or purplish hue around the lips or tongue)
- Altered mental status; in severe cases, unconsciousness may result



## Prevention and Safety Measures:

- **Install CO Detectors:** Install CO detectors on each level of your home. Place CO detectors in key areas around your home, especially near bedrooms. Test them regularly, and replace batteries as needed.



- **Regular Appliance Maintenance:** Ensure that fuel-burning appliances are installed and maintained by professionals.
- **Ventilation:** Ensure proper ventilation in

enclosed spaces where fossil fuels are burned.

- **Never run combustion engines indoors:** Avoid running vehicles, generators, or any combustion engine in enclosed spaces.



If you suspect CO poisoning, move to fresh air immediately and seek medical attention. Emergency symptoms may include difficulty breathing, confusion, chest pain, and loss of consciousness. The Consumer Product Safety Commission warns that you should never ignore a CO alarm, and do not try to find the source of the gas. Instead:

- Immediately move outside to fresh air.
- Call the gas company, fire department, or 9-1-1.
- Don't re-enter the premises until the emergency responders have given you permission to do so.

Understanding the sources, symptoms, and preventive measures for carbon monoxide poisoning is crucial for maintaining a safe living environment. Perform regular maintenance of appliances, ensure proper ventilation, and maintain situational awareness. Significantly reduce the risk of CO poisoning along with other exposures by taking these steps. Have a safe and prosperous new year!

The VOLTS Steering Committee

## References

- <https://www.ksl.com/article/50832381/22-transported-to-hospital-for-carbon-monoxide-poisoning-in-sevier-county>
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  - <https://www.usfa.fema.gov/prevention/life-safety-hazards/carbon-monoxide/>
- Limmer, O'Keefe & Dickinson (2022) Emergency Care 14<sup>th</sup> Edition