

Connecticut Department of Public Health Environmental Health Section Environmental & Occupational Health Assessment Program 410 Capitol Avenue, MS # 11EOH, PO Box 340308 Hartford, CT 06134-0308

Telephone: (860) 509-7742 Fax: (860) 509-7785

http://www.dph.state.ct.us

CARBON MONOXIDE:

The Quiet Killer

What is Carbon Monoxide?

Carbon monoxide (CO) is a colorless, odorless and deadly gas produced by the incomplete burning of fossil fuels. These fuels can be natural gas, oil, kerosene, coal or wood. Carbon monoxide replaces oxygen in the blood, interfering with the transport of oxygen needed by the cells in the body.

How Can I be Exposed to Carbon Monoxide?

CO is produced by all fuel burning appliances. Sources can be:

- Gas and oil furnaces
- Wood, kerosene, and pellet stoves
- Automobile exhaust
- Charcoal fires
- Water heaters
- Generators that produce electricity
- Gas dryers, stoves/ovens
- Unvented gas fireplaces

What are Symptoms of CO Poisoning?

The first physical symptoms of CO poisoning may include:

- ▶ headache ▶ fatigue
- ▶ dizziness → nausea

These symptoms can mimic cold or flu symptoms and may be overlooked. If these symptoms go away when you are gone from the home and come back when you return, or if everyone in the home has these symptoms at the same time, this may be a sign of CO poisoning. Higher concentration of CO can cause a loss of consciousness, brain damage and death.

What should I do if I suspect CO in my home?

- 1. Leave your home immediately!
- 2. Call 911 or the Connecticut Poison Control Center (800-222-1222) from a cell phone or a neighbor's house after you have left the house.
- 3. Call the local fire department to test for CO, or call your fuel supplier or licensed heating contractor for an emergency inspection.

What can I do to prevent CO poisoning?

- Install a CO detector in your home near the bedrooms. Test alarms frequently; change batteries annually.
- Have your heating systems, chimney flues, and gas appliances checked yearly, and cleaned and serviced as needed by qualified heating/ appliance contractors.
- DO NOT use alternative heating sources, such as a kerosene heater, inside the house or in the garage.
- Never go to bed with a fire burning or smoldering.
- Repair or replace faulty car exhaust systems promptly.
- DO NOT run cars, lawn mowers, generators, snow blowers or other internal combustion engines in enclosed spaces such as a garage, porch, or basement.

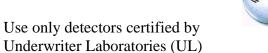
Health Effects of Carbon Monoxide Poisoning

| Air concentration | Health Effects | Actions |
|----------------------|---|--|
| Outdoor: 0-2 ppm* | Normal outdoor ambient level | None needed |
| Less than 10 ppm | None | None needed |
| 10-20 ppm | Fatigue in healthy people; Chest pain in people with heart disease | Investigate possible source of CO. Repair when located. |
| 20-75 ppm | Impaired vision and concentration; Headaches, dizziness, confusions, nausea; Symptoms can mimic the flu but clear up after leaving home. | Investigate possible source of CO. Repair when located. Move all residents to fresh air |
| 75-200 ppm | Angina, impaired vision, reduced brain function may result. | Get out of house immediately; call 911 from outside of the house |
| Greater than 400 ppm | Can be fatal. | Evacuate immediately. Call 911 from outside of the house. |

^{*}parts per million

Any reading over 10 ppm indicates that there is an unusual source of CO that needs to be investigated.

What do I Need to Know about CO Detectors?



- Choose a digital readout detector
- Detectors can be battery-operated or plug in with a backup battery system
- Use according to manufacturers instructions
- Place outside sleeping areas
- Replace the detector every 5 years or sooner. The sensor has a limited life span.

Connecticut Carbon Monoxide Detector Law

In 2005, the Connecticut legislature passed a law requiring the installation of carbon monoxide detectors in new one or two family buildings and in existing residences where alterations or additions requiring a permit occur. The full text of the law can be found at: www.cga.ct.gov/2005/act/Pa/2005PA-00161-R00HB-06894-PA.htm.

Resources

Connecticut Department of Public Health Environmental Health Section Epidemiology and Occupational Health Assessment Program 860-509-7742 www.dph.state.ct.us

Connecticut Poison Control Center 800-222-1222 http:poisoncontrol.uchc.edu

New England Fuel Institute 20 Summer Street Watertown, MA 02472 617-924-1000 www.nefi.com

American Lung Association of CT 45 Ash Street East Hartford, CT 06108 860-289-5401 www.alact.org

U.S. Environmental Protection Agency www.epa.gov/iaq/co

