



CARBON MONOXIDE

Carbon monoxide (CO) is an invisible gas that you must watch out for. You can't see or smell it; yet it can kill you and your loved ones within minutes if you breathe high concentrations of it. At low levels, it can make you sick.

Dizziness, headaches, fatigue, confusion, nausea, shortness of breath.

These are the symptoms of CO poisoning, and you're right—they resemble those of the flu and other common illnesses, so it can be hard to diagnose. Suspect mild CO poisoning if the symptoms disappear when you leave your house and reoccur when you come home. CO quickly enters your blood stream and prevents it from delivering the oxygen your body needs to function. People with anemia, heart or lung problems, children and unborn babies are particularly susceptible to its deadly effects.

Don't take any chances if the symptoms come on quickly and you've reason to suspect CO poisoning. If you hesitate, you could lose consciousness and die. Get everyone out into fresh air immediately and go to an emergency room. There's a blood test to check for CO poisoning. Make sure you contact a qualified heating contractor to check your fossil fuel appliances before reentering your house.

Fuel-burning appliances emit carbon monoxide

Small amounts of CO are produced whenever fossil fuels such as gas, oil, kerosene, charcoal or wood are burned. When these fuels burn completely and

are exhausted properly, the CO levels aren't dangerous. But trouble comes quickly when the burn is incomplete and exhaust accidentally leaks inside your house. Sometimes when a fossil fuel appliance is operating at the same time as a powerful exhaust vent, exhaust gases can be sucked out of the appliance or pipe and enter the house. This scary scene is often called appliance back drafting.

You can protect your household by having a trained professional perform a safety inspection on all fuel-burning appliances each fall. Call your utility company or heating contractor. This is the most important step you can take! These appliances include gas or oil furnaces, water heaters, ranges, ovens, cook tops, clothes dryers, portable kerosene or gas space heaters, wood or coal stoves and fireplaces.

The inspector should check to make sure:

- Appliances are installed and operating properly.
- All burners are getting enough outside/fresh air for complete combustion.
- All vents, chimneys and flues are clear and well-connected.

While prevention of CO is your first priority, you can also install CO detectors. Plug-in and battery-powered detectors are designed to sound an alarm when they sense harmful CO levels. Make sure the detectors you buy meet American Gas Association or Underwriters Laboratories standards and use them only as a back-up measure, not as a substitute for common sense and an annual appliance inspection and maintenance.

If you have a CO detector purchased before October '95, the detector should be replaced with one that meets the UL2034 standard. Also, when you purchase the detector, note the life expectancy of the sensor cell located inside the detector—the cell doesn't last forever and will have to be replaced according to the manufacturer's recommendations. If your detector is battery-powered, just like a smoke detector, the battery should be tested monthly and replaced annually. Install detectors on the wall or ceiling outside your bedroom and in the furnace room. If you qualify for weatherization assistance and use natural gas, you may be eligible for a free detector. Contact your local Human Resources Development Council for details.

When using fossil fuel appliances, look for these warning signs:

- A gas appliance with a yellow flame (it should burn blue).
- Soot buildup on or around your appliance.
- Rust stains on vents or chimneys.
- Increased condensation on windows.
- Lack of hot water.
- Furnace running longer and not heating as well.
- Unfamiliar smells or sounds coming from appliances.

Energy-efficiency alert!

If your home is energy-efficient—if it's insulated and air leaks are sealed with caulking and weather stripping— you must be extra careful. Please be sure all combustion appliances are operating properly, because CO levels could build up rapidly in a tight home.

For more information, read the Fact Sheet called Gas Appliances and Your Health.

Please follow these safety tips:

- Never use an oven or range as a space heater.
- Never let the car run in an attached garage.
- Never sleep in a room with an unvented gas or kerosene space heater.
- Always make sure unvented space heaters operate in rooms with a window cracked and the door open. (Better yet, avoid using them entirely!)
- Always follow operating and maintenance instructions for combustion appliances.
- Always operate gasoline-powered engines (generators, chain saws, etc.) in open spaces.
- Never use a barbecue grill indoors.

For More Information

For more information about carbon monoxide, contact the MSU Extension office in your county.