Carbon Monoxide

Information from Vermont AgrAbility Project

Carbon monoxide (CO) is highly toxic; it is the leading cause of accidental poisoning deaths in North America. Because you cannot see it, smell it, or taste it, you or your loved ones could be exposed to CO without even knowing it. It is sometimes called the "silent killer". The symptoms of mild exposure to CO — headaches, fatigue, nausea, dizziness and shortness of breath — are often mistaken for the flu, food poisoning or other illness. At high levels, CO can kill a person in minutes. Continual exposure to low levels of CO can lead to depression, confusion and memory loss.

CO is produced whenever any fuel such as gas, oil, kerosene, wood or charcoal is burned. If appliances that burn fuel are installed, maintained and used properly, the amount of CO produced is usually not hazardous. If an appliance is improperly installed, malfunctions or the outside vent is blocked, CO can back up into your home, reaching dangerous levels quickly.

The only way to safely detect CO in your home is with CO detectors. When buying a CO detector, check for the UL approved label. Install CO detectors in a central area on every level (including the basement) and near sleeping areas. CO detectors should be placed at least five feet above the floor; hard-wired and plug-in models need a



battery backup so that they will still function in a power outage. Like smoke detectors, the batteries in CO detectors need to be changed yearly. Test the CO alarm once a month by pressing the test/reset button. The sensors in all CO detectors wear out; CO detectors need to be replaced every 5 years. In Vermont, CO detectors are required in all new dwellings and upon the sale or transfer of existing dwellings.

What you need to do if your CO alarm goes off depends on whether anyone is feeling ill or not.

If no one is feeling ill:

- 1. Turn off all appliances and sources of combustion.
- 2. Open doors and windows to ventilate the house.
- 3. Call a qualified professional to investigate the source of the possible CO buildup.

If anyone is feeling ill:

- 1. Evacuate all occupants immediately.
- 2. Call 911, tell them you have CO exposure and how many are affected.
- 3. Do not re-enter the home without the approval of an emergency services responder.
- 4. Call a qualified professional to repair the source of the CO.

Read and follow the checklist on the back:



University of Vermont, VT AgrAbility Project 655 Spear Street #105 Burlington, VT 05405-0107 802-656-5420 or 1-800-571-0668, Fax:802-656-5422

Prevention is the Key to Avoiding Carbon Monoxide Poisoning

DO properly equip your home with CO alarms on every level and in sleeping areas. Test the alarms monthly, change the batteries yearly, and replace every 5 years.

DO have your fuel-burning appliances — including oil, gas or wood furnaces, gas water heaters, gas ranges and ovens, gas dryers, gas or kerosene space heaters, fireplaces and wood stoves — inspected by a trained professional yearly. Make certain that the vents, flues and chimneys are connected, in good condition, and are not blocked.

DO check and make sure the fresh air intakes and exhaust vents are clear of snow, ice, leaves or other debris. Newer heating systems are more vulnerable to these issues; the vents are often installed low on the side of the house.

DO choose appliances that vent their fumes to the outside whenever possible, have them properly installed, and maintain them according to manufacturers' instruction.

DO read and follow all of the instructions that accompany any fuel-burning device. If you cannot avoid using an unvented gas or kerosene space heater, *carefully follow the precautions* that come with the device. Use the proper fuel and keep doors to the rest of the house open. Crack a window to ensure enough air for ventilation and proper fuel-burning. **DO NOT** sleep in any room with an unvented gas or kerosene space heater.

DO make sure the flue is fully open before using your fireplace.

DON'T leave a car, mower, weed-trimmer, snow blower, chain saw or other such item running in a garage, even if the garage door to the outside is open. Fumes can build up very quickly; if the garage is attached to your home, the fumes can seep into your home.

DON'T use a gas range/stove or clothes dryer to help heat your home, even for a short time.

DON'T *ever* use a charcoal grill indoors — even in a fireplace. **DON'T** use a charcoal grill in a garage, even with the garage door open.

DONT run a gas-powered generator in a garage, basement, or near any overhang on your home. Keep it at a distance.

DON'T cover the bottom of a natural gas or propane oven with aluminum foil. Doing so blocks the combustion air flow through the appliance and can produce CO.

DON'T ignore an alarming CO detector. It is warning you of a potentially deadly hazard; it's warning you of elevated CO levels in your home. Some people can be exposed to dangerous levels of CO and not feel any symptoms. It is crucial that the source of the CO is determined and that repairs are made.

Compiled from: United States Environmental Protection Agency

United States Fire Administration, Department of Homeland Security

United States Consumer Product Safety Commission

National Fire Prevention Association

New York State Office of Fire Prevention and Control

Vermont Department of Public Safety Vermont Emergency Management