

What you need to know about carbon monoxide (405 words)

(NC)—Carbon monoxide (CO) is a poisonous gas that you cannot see, smell or taste. It is often referred to as the “silent killer”. CO is produced by the incomplete burning of fuels such as natural gas, propane, heating oil, kerosene, coal, charcoal or wood.

Improperly installed or poorly maintained appliances that run on these fuels may create unsafe levels of CO. In enclosed spaces such as your home, cottage or recreational vehicle, even a small amount of CO is dangerous.

Exposure to CO can cause flu-like symptoms such as headaches, nausea, dizziness, burning eyes, confusion, drowsiness and even loss of consciousness. In very severe cases, CO poisoning can cause brain damage and death. The elderly, children, people with heart or respiratory conditions, and pets may be particularly sensitive to CO and may feel the effects sooner.

The conditions that can create a CO hazard include:

- Fuel-burning appliances, venting systems and chimneys that have not been serviced and maintained regularly by a qualified service technician or heating contractor;
- A chimney blocked by a bird or squirrel’s nest, snow and ice or other debris;
- Improper venting of a furnace and cracked furnace heat exchangers;
- Exhaust fumes seeping into your home from a car running in an attached garage;

- Using fuel-burning appliances designed for outdoor use (barbecues, lanterns, chainsaws, lawnmowers, and snowblowers) in a closed area (tent, recreational vehicle, cottage, workshop, or garage).

- Combustion gases spilling into a home if too much air is being consumed by a fireplace or exhausted by kitchen/bathroom fans in a tightly-sealed home.

At any time, if you or any one else in your home is experiencing the symptoms of CO, make sure that everyone leaves the home immediately and gets medical help. Call 911 or your local fire department. If a CO detector alarm sounds in your home, open all doors and windows to ventilate. If you can’t find the problem and the alarm continues, contact your local gas utility or a qualified heating contractor to check your fuel-burning equipment.

Remember that carbon monoxide detectors are a good second line of defence, but they do not eliminate the need for regular inspection, maintenance and safe use of your fuel-burning appliances. Information on where to find a qualified contractor in your area can be found on the website of the Heating, Refrigeration and Air Conditioning Institute of Canada at www.hrai.ca, or toll-free 1-877-467-HRAI.

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Know the danger signs of carbon monoxide poisoning

Here are the most common household warnings: (144 words)

- You or other members of your family are experiencing the symptoms of CO exposure such as headaches, nausea, dizziness, burning eyes, confusion, drowsiness and even loss of consciousness;
- You notice a sharp penetrating odour or smell of gas when your furnace or other fuel-burning appliance turns on;
- The air feels stale or stuffy;
- The pilot light of your gas furnace or other fuel-burning appliance goes out;

- Chalky, white powder forms on the chimney/exhaust vent pipe or soot builds up around the exhaust vent;
- Excessive moisture forms on windows and walls;
- The alarm of a carbon monoxide detector sounds.

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CONSUMER INFORMATION

For furnaces, the right size matters (403 words)

(NC)—If your home heating system is more than 15 years old, this winter is a great time to consider upgrading your equipment to more energy efficient models, all the more because of the large number of government, utility and manufacturer incentive programs in effect.

If you do make the decision to replace your heating and/or cooling system, be sure to insist that the installing contractor “sizes” the system properly. To determine the correct heating or cooling capacity of your system, a contractor should perform a “heat loss and heat gain calculation”. This calculation relies on an assessment of the size and age of the home, insulation levels of walls and attic, the type and number of windows, air infiltration rate, indoor design temperature, coldest outdoor temperature found in your area (typically in January) and other factors that influence the rate at which your home loses heat.

The “right-sizing” of replacement equipment is one of the most commonly overlooked methods for ensuring that you get the most from your system. Properly sized equipment performs more effectively and more efficiently, ensuring optimal comfort, less temperature differentiation between floors and maximum energy efficiency. If your contractor refuses to do a heat loss/heat gain calculation, find another contractor.

Over-sizing equipment can result in increased fuel consumption and higher operating costs, potential premature parts failure, higher noise levels, and reduced comfort (including hot or cold spots within the home). On the other hand, under-sizing can result in higher operational costs, particularly with today’s sophisticated models. The units will be working at full capacity most of the time, which can lead to premature breakdowns and, more generally, reduced comfort levels.

Furnace technology advanced significantly over the past few years. The introduction of two-stage and modulating technologies have allowed furnaces to provide heating at two or more different capacities. This will allow the furnace to deliver air to the home at a rate which more closely matches the heat loss requirements found throughout the year providing a more even temperature and comfortable environment.

A replacement furnace is not an everyday purchase, so make sure you look at all the options carefully. Remember to get three quotes when considering the purchase of new HVACR equipment, and make sure the contractor you select includes the cost of performing a heat loss/heat gain calculation in the price. You can find a qualified contractor by calling HRAI at 1-877-467-HRAI or online at www.hrai.ca.