

Don't Turn Your Back on the Furnace

Every furnace needs annual maintenance before the heating season begins, a chore that's easy to overlook if you purchase a house over the summer or fall.

Gas and oil furnaces are costly to operate and are potential health hazards if they are not properly maintained and operating at top efficiency. And it's not just furnaces, but gas-powered water heaters and space heaters and all fireplaces that pose a deadly threat to residents.

If it was just a matter of clearing away a summer's worth of junk from around the furnace and dusting a few filters, anyone could prepare for the heating season in a few minutes. Unfortunately, it's much more complex and involves not just the furnace but its pipes and ducts, the chimney, fireplaces, and often several other appliances.

And it requires a technical understanding of combustion and air flow, because most of the problems and danger in furnaces comes from leaks, blockage, or incomplete combustion that creates deadly carbon monoxide gas. So a qualified heating serviceman should be called in before the temperature really plunges.

Furnaces, appliances and fireplaces are just some of the several hundred of items routinely checked during a typical three-hour home inspection. Problems can be found in the furnace's heat-exchanger, vent pipes, the blower compartment, or the chimney.

A well-sealed house can actually be a problem because the furnace may not be able to get enough fresh air for proper combustion. Special care should be taken after a home undergoes extensive weather sealing, especially in the furnace room.

A similar problem can occur if a you create a workshop or other space in the furnace room and then encloses the area with new walls or doors. That will provide quiet and privacy, but can also impede air flow.

I often see situations where renovations done by homeowners, usually in the summer when the furnace is not on, create problems that show up in the depths of winter. Restricting air flow so that the furnace can no longer burn cleanly can cause the living areas to fill up with carbon monoxide very quickly.

Carbon monoxide is the leading cause of accidental poisoning in North America and is more dangerous than most gases because it is colourless, odourless and tasteless. It has a particular affinity for combining with the hemoglobin in our blood (about 200 times the rate of oxygen) and this means the blood cannot carry the oxygen that we need to survive.

Each year some 1,500 deaths occur in the U.S. because of carbon monoxide poisoning and another 10,000 people seek medical attention. Many victims think they're coming down with the flu – the symptoms are headaches, nausea, dizziness, heart palpitations – and make the fatal mistake of going to bed instead of getting out of the house.

A carbon monoxide detector is indispensable. They're not as common as smoke detectors but every house should have one. They're widely available across the country at costs ranging from about \$35 to \$100.

Indeed, why not give a CO detector as a Christmas or house-warming gift? It will last forever, and will be deeply appreciated, especially if it ever goes off in the middle of the night.

