

# Why a carbon monoxide detector may not be enough

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The recent death of a Bethesda man from carbon monoxide poisoning is a tragic reminder of the need to properly maintain gas furnaces in our homes.

Carbon monoxide (CO) is known as the “silent killer.” At low levels, it can make you sick. At high levels, it is deadly.

“This is just sad, very sad,” said Mike Hartman, president of Thos. E. Clark Plumbing and Heating in Silver Spring. Technicians from his company evaluated the cause of the CO-related death in Bethesda. “It was a simple venting problem.”

Carbon monoxide is a highly poisonous gas that is colorless, odorless, tasteless and nonirritating. It is produced from burning fuels such as propane, gasoline, natural gas, heating oil or wood. It inhibits blood from absorbing oxygen into cells, tissue and vital organs.

According to the Centers for Disease Control and Prevention, CO kills hundreds and causes serious illness in thousands of people each year.

I spoke with a local CO expert who believes these numbers are much higher.

Albert Donnay, a consulting toxicologist based in Hyattsville, Md., said he believes that more than 200,000 emergency-room visits per year should be attributed to CO poisoning, and the death rate is closer to 2,000 per year. He said he thinks the numbers are higher than reported because CO-related illnesses often go undiagnosed and are treated incorrectly.

“Families may develop chronic flulike symptoms, headaches, fibromyalgia, irritable bowel syndrome and weakness from low levels of CO,” Donnay said. “Doctors don’t know to ask about CO in their homes.” How do you know if your home has CO? Jim Davis, a senior trainer with the National Comfort Institute, said that you must use the proper testing equipment when searching for CO leaks. “You should be using a combustion analyzer,” Davis said. Davis explained the difference between an analyzer and a monitor. “A monitor just tests the CO levels in a house,” he said. “An analyzer determines if there is proper combustion efficiency, ventilation and fuel-air mixture. You want to know if your furnace is mechanically sound.”

According to Davis, a combustion analyzer should always be used during installation and maintenance of appliances. “Sadly, only 2 percent of contractors are trained and certified in the use of combustion analyzers,” he said. “Not one state requires certification in combustion and carbon monoxide.”

What else should you consider when installing and maintaining a furnace?

In a recent email, Glen Blanc of Pro-Spex Home Inspections said: “First and foremost, do not let anyone change an appliance without a permit.” Blanc wrote that he sees indicators of poor

venting all the time and hardly ever sees proof of inspection by the gas company.

How often do homeowners consider the need for HVAC maintenance?

“People treat their heating systems like a crock pot,” Hartman said. “Set it and forget it. They believe if it seems to be working okay, you don’t have to do anything.”

Hartman suggests having your systems checked twice a year. “Right before the season starts,” Hartman said, referring to winter and summer.

Hartman said that there are indications of possible CO leaks that can be observed visually by a homeowner.

“Look for rust on top of the heater or on the smoke pipe going from the heater to the chimney,” Hartman said. Also, he said bubbled and flaking paint on the top of the heater could indicate a venting problem. If left unchecked, he said, the venting problem could turn into a CO problem.

These visual indicators do not replace regular maintenance by a licensed professional.

Furnaces are not the only appliances guilty of causing CO illnesses and deaths.

“The main sources are furnaces, cars and generators,” Donnay said. “Someday, Americans will wake up and realize that attached garages were a terrible mistake. It was a stupid thing when we put them in the house.”

Idling a car or putting a gas generator in an attached garage is a deadly mistake. High levels of CO get trapped inside a garage and slowly leak into the house.

What can you do to protect yourself and your family?

Donnay recommends buying a commercial-grade monitor that senses low levels of CO, and one that has a digital display to monitor CO data in your house. Some additional tips include: Install a CO alarm outside every sleeping area.

CO is lighter than air, thus it rises. Install CO monitors closer to the ceiling.

Test CO alarms once a month. Don’t be a statistic.