Carbon monoxide: An invisible danger

By Natalie McGill

When you see smoke in your home, your first instinct may be to run or call 911 for help. But when there's carbon monoxide in your home, you don't have such a visible warning sign. The odorless and colorless toxic gas can fill your home or vehicle and poison your body without you noticing.

Luckily, there are precautions you can take through home and vehicle maintenance to prevent poisonings.

More than 20,000 people visit U.S. emergency rooms annually due to carbon monoxide poisoning, which hospitalizes more than 4,000 people each year, according to the Centers for Disease Control and Prevention. Exposure comes from emissions from mechanical devices, such as heaters, cars and generators.

Poisoning occurs when your body replaces the oxygen in your blood with carbon monoxide, CDC says. You may feel dizzy, nauseous or aggravated by a headache, but prolonged exposure could make you pass out or possibly die.

"Improper generator use tends to be a major source," says Fuyuen Yip, PhD, MPH, an epidemiologist with CDC's Air Pollution and Respiratory Health Branch. "Home heating systems are also a huge source, or can be a huge source, of CO poisoning."

Get a home detector

Having a carbon monoxide detector installed is one of the most basic ways you can prevent poisoning in the home.

Yip recommends purchasing a detector that's either battery operated or has a battery backup feature and is certified by Underwriters Laboratories, a product inspection company. You should set a reminder to replace the detector every five to seven years, Yip says.

Yip says any appliance that burns fossil fuels, such as coal and oil, could be a culprit in carbon monoxide poisoning. Yip says gas stoves should also be checked regularly for possible leaks and that your heating, ventilation, air conditioning system should undergo an annual inspection by a certified inspector.

Regular inspection of home heating systems becomes more crucial as you enter your senior years. Carbon monoxide poisoning deaths are highest among adults ages 65 and older, CDC says.

Seniors and children can be particularly susceptible to the effects of carbon monoxide poisoning, Yip says. Because symptoms such as dizziness and headaches are common, it may not immediately be clear to them that they are being poisoned.

"If (seniors) are feeling drowsy repeatedly, consider it a low level of exposure," Yip says. "It might not be a symptom of their age."

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Yip says to make sure your car is fully backed out of the garage, as the exhaust could fill the space with carbon monoxide. If you are starting your car inside the garage, a door should be open to let in fresh air, CDC says. It is also important after weather events, such as a snowstorm, to make sure that your exhaust pipe is not blocked. General maintenance of your car to check for exhaust system leaks is also key to preventing poisoning, CDC says.

Beware of dangers from generators

During a power outage, your family might rely on a generator that runs on fuel to power electricity or electrical products in the home. Remember that a generator must only be operated outdoors and should be placed at least 20 feet away from a home, Yip says.

While outside, you should make sure that the generator isn’t close to any open doors or windows you may have open for fresh air, according to the American Red Cross. Even if the generator is outside, carbon monoxide can still accumulate in the home via an open window or a fan if a generator is too close to the home, the Red Cross says.

"Given that you do have to be able to move the generator, if there is a model with wheels that is not so heavy, that would be ideal," Yip says. "Also, make sure you have an outdoor-rated extension cord long enough that would enable you to place it that way."

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