

Safety Guru - Fall 2018

The leaves are starting to change, geese are starting to make their way to warmer climates, kids are back in school (watch out for school buses!) and there's a crisp, refreshing chill in the air every morning. It's finally fall!

We should be preparing ourselves by making sure that the snow blowers and shovels are ready, we've dug out the warm clothing and boots, we've taken steps to prevent pipe freeze-ups, and we've stocked our vehicles with our winter survival kits. But are we preparing for what is sometimes referred to as the "Silent Killer"?

Carbon monoxide is often referred to as the "Silent Killer" because it has no odor, no color, no taste, and no indication it is present as it slowly poisons anyone nearby. Symptoms of exposure to carbon monoxide can be so subtle that you may not even know what is happening until it is too late. Carbon monoxide poisoning increases significantly in the winter months, with over half the accidental deaths occurring in January, February, and March. This increase is often attributed to two seasonal changes...an increased use of appliances that produce carbon monoxide and closing up our homes and indoor spaces nice and tightly as the temperatures drop. Thankfully, there are several simple precautions we can take to ensure that our families, coworkers and selves do not succumb to this "Silent Killer".



What is Carbon Monoxide?

Carbon Monoxide is an odorless, colorless, tasteless gas that is given off whenever a fuel is burned. It can be any kind of fuel (wood, propane, gasoline, diesel, kerosene, etc.). Even so-called "clean-burning" appliances can release carbon monoxide. Carbon monoxide can come from generators, vehicles, space heaters, furnaces, stoves, water heaters, and much more. It distributes itself evenly throughout the air, and can accumulate very quickly in enclosed areas with little or no air movement. Carbon monoxide may also be produced during chemical reactions. Whenever using new chemicals at your wastewater treatment plant, make sure you read the Safety Data Sheet (SDS) and use a 4-gas meter (with carbon monoxide sensor) or carbon monoxide detector if you suspect carbon monoxide could be released from a chemical reaction.

Carbon Monoxide, when breathed in, will bind to your blood cells just like oxygen does, except 250 times stronger! Because it binds to your blood cells so much stronger than oxygen, you will not be able to get the oxygen that your body needs. Medical treatment, including the use of a hyperbaric chamber, may be needed if the poisoning is severe.

Preventing Carbon Monoxide Poisoning

The good news is that carbon monoxide poisoning is very preventable. The absolute best thing that you can do to prevent carbon monoxide poisoning is to have a functioning carbon monoxide detector in your home, workplace, hunting shack, icehouse, garage, or anywhere else there is a potential source of carbon monoxide. Because it's so important, I'm going to repeat that again, along with these other simple precautions you can take to prevent carbon monoxide poisoning:

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- Have a functioning carbon monoxide detector in your home, workplace, hunting shack, icehouse, garage, or anywhere else there is a potential source of carbon monoxide (told you I'd repeat that);
- Replace your Carbon Monoxide detector batteries twice per year (maybe when you change the clocks?) and replace the carbon monoxide detector every five years;
- Have your furnace, water heater, stove, and other gas powered appliances serviced by qualified service technician annually;
- Make sure your gas appliances are vented properly and check regularly. Snow, leaves, and other debris can build up in front of vents, and ducts outside and cause carbon monoxide to build up inside the building;
- Have your chimney checked and cleaned regularly;
- Do not use a stove, oven, or grill to heat your home;
- Do not use a generator inside your home, garage, shack, ice house, or within 20 feet of any door, window, or vent;
- Do not try to repair vent pipes with tape or other makeshift repairs material as they can lead to carbon monoxide leaks inside the building;
- If you let your vehicle run for a while to warm up in the winter, do not run the vehicle inside a garage or near an open garage door, loading docks, or air intake for any buildings;
- Do not use gasoline powered pressure washer inside of buildings (this includes inside shops and garages);
- Consider using less hazardous tools and equipment indoors whenever possible, such as electric or compressed air powered washers;
- Use a personal carbon monoxide detector within your breathing zone if you suspect there may be carbon monoxide in your workplace; and
- Employees and employers should evaluate their work environments and look for potential sources of carbon monoxide. Detectors should be used to assess the hazard.

Symptoms of carbon monoxide exposure can include headache, nausea, dizziness, tiredness, confusion, and impaired judgement and coordination. Some people experience no initial symptoms and can go right to unconsciousness, convulsions, and death.

Whether at home, at work, or at play, have a carbon monoxide detector in use. It's a real life saver!

As always, please keep those questions and comments coming in to the Safety Guru. Keep safety at the top of the list – on and off the job!

Safety Guru

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