

AIR RESCUE

Heating Cooling

Is Your Furnace Making You Sick?!

Recently, a family of four was found dead in a cabin on their camping trip. The reason behind this tragic event? **Carbon monoxide poisoning**. The heating system in the cabin malfunctioned and leaked carbon monoxide (CO), a deadly gas, which (according to OSHA) is a poisonous, odorless and tasteless gas. Many homes, possibly including your own, have carbon monoxide detectors, and while this may sound like a secure defense system against CO, there are several reasons why it should not be your primary precaution.

The biggest problem with CO is that it is a product of incomplete combustion. If the burning process is not 100% efficient then CO is a byproduct of that process. This can play out in homes because of **gas furnaces** when there is a crack in the heat exchange. The heating system could be spilling low levels of CO without ever causing the CO detectors to alarm. Most detectors do not alarm until there is a buildup of 45-50 PPM (parts per million) of carbon monoxide for eight continuous hours. This means that there could be trace amounts of CO in your home right now! Because you stay in the home and live and sleep, this undetected CO will accumulate in your body over time. This is dangerous.

Let's look at what carbon monoxide actually does to your body. Hemoglobin is the protein in red blood cells that carries oxygen from the lungs to the body's tissues. Carbon monoxide has a 200% greater affinity to bind with hemoglobin than oxygen. What that means is that carbon monoxide is knocking the oxygen molecules off and taking their place. The result of this is literally **chemical suffocation**. If you are in the home and carbon monoxide is being emitted, you and your family are breathing it in.

Here are some common signs of low level carbon monoxide exposure:

- Headaches
- Body aches
- Fatigue
- Insomnia
- Anxiety
- Nausea
- Dizziness
- Shortness of breath
- Flu-like symptoms

This problem of undetected CO is exaggerated because our homes are now built to be sealed up and to keep fresh air out, unlike how they used to be constructed. Because of this, carbon monoxide may be spilling into your home and fresh air is not being circulated, making it worse.

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The second biggest problem with CO detectors being our only defense is that the sensor of the detector is only good for about five years, even if the battery still shows to be good. This means that if your home is over five years old, your carbon monoxide detector may not be functioning like it should be.

What can be done to protect against carbon monoxide in our homes? **Yearly furnace Safety checks and Tune-ups.** We test to see if the furnace is putting out carbon monoxide into the living space, as well as putting a camera into the heat exchanger to see if there are any cracks that would allow CO to escape into the house, instead of exhausting out the flue.

Here are some reasons why your furnace needs to be inspected:

- It's not heating your home properly
- It may be driving up your electric or gas bill
- It has been greater than 12 months since your last furnace inspection.
- But most importantly, it may be causing an unsafe living environment for you and your family

We want to help ensure the safety of you and your loved ones! Call us! www.AirRescue911.com
469-294-2616

Other carbon monoxide facts:

Each year, more than 400 Americans die from unintentional CO poisoning. More than 20,000 visit the emergency room and more than 4,000 are hospitalized.

The hemoglobin of babies in utero bind with CO with more avidity than adult hemoglobin does, and the normal partial pressure of oxygen (PO₂) is lower in the baby's circulation than in adult circulation. These factors all make the baby in utero more vulnerable to chemical suffocation than children and adults.

The Center for Disease Control (CDC) states that we should all have our heating systems serviced by a qualified technician every year.

Visit this page to learn more:

www.cdc.gov/co/furnacesafetyfactsheet.html

www.cdc.gov/co/faqs.html

emedicine.medscape.com/article/1009092-overview#a10

www.health.harvard.edu/diseases-and-conditions/carbon-monoxide-poisoning-