



Indoor Air Quality



Carbon Monoxide

Carbon monoxide is a very dangerous, colorless, odorless gas, generally associated with your home heating system, but for a little better understanding, let's take a quick trip back to high school chemistry class. The gas or oil you burn for home heating are compounds known as hydrocarbons (hydrogen + carbon). In your furnace these hydrocarbons are mixed with oxygen from the air in your home, and burned to produce heat. When your furnace and chimney are working properly, the gas or oil is burned more or less completely, and the resulting fumes are mainly carbon dioxide (carbon + 2 oxygen atoms) and water vapor. If your furnace doesn't get enough oxygen, either because the house is too tight or the chimney isn't functioning properly, carbon monoxide (carbon + 1 oxygen atom) is produced instead. It's the lack of that one little oxygen atom that causes all the trouble.

One of the imperfections of our human bodies is that, given a choice between carbon monoxide and oxygen, the protein hemoglobin in our blood will always latch on to carbon monoxide and ignore the life-giving oxygen. Because of this natural chemical affinity, our bodies - in effect - replace oxygen with carbon monoxide in our bloodstream, causing greater or lesser levels of cell suffocation depending on the intensity and duration of exposure.

The side-effects that can result from this low-level exposure include permanent organ and brain damage. Infants and the elderly are more susceptible than healthy adults, as are those with anemia or heart disease.

The symptoms of low-level carbon monoxide poisoning are so easily mistaken for those of the common cold, flu or exhaustion that proper diagnosis can be delayed. Because of this, be sure to see your physician about persistent, flu-like symptoms, chronic fatigue or generalized depression.

CO Readings in your home ranged from _____ to _____

- ⊕ No standards for CO have been agreed upon for indoor air. The U.S. National Ambient Air Quality Standards for outdoor air are 9 ppm for 8 hours, and 35 ppm for 1 hour.
- ⊕ If your kitchen stove is fueled by Natural Gas or Propane, your kitchen exhaust fan, vented to the outside, should be used whenever cooking. Running the stove or oven can put 400 to 800 ppm of CO into the air of your home!
- ⊕ If your garage is attached to the house, NEVER start your car before opening the garage door. During starting, your car produces large amounts of CO that get pulled into the house.