

“Normal levels of carbon monoxide?”

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Some of the information reported in news stories can be misleading. Over the years and to date, it is often suggested that “normal levels inside homes should be less than 50 parts per million (PPM) of carbon monoxide”. In other articles the “normal” levels are suggested to be below 35 PPM, 25 PPM or no more than 9 PPM. Though the “experts” may have different opinions, advanced medical research indicates lower level exposures to carbon monoxide gases are more of a concern than the conventional and anecdotal wisdom often times presented.

These references to “normal” are dangerous to suggest and could result in chronic exposures to this deadly gas and lead to unnecessary injury or death to elderly people and people with heart disease known and unknown. They can also present difficulties, injury or death to pregnant women, infants, anyone with respiratory problems and others of “vulnerable” health.

Carbon monoxide levels that may be considered “normal” inside a home or building should be no more than the levels found outside the home or building. There may be “spikes” of occurrence where CO from cigarette smoke, candles, incense, unvented and poorly combusting gas appliances may be generated into the air. Poorly combusting, or damaged gas, oil, wood or coal heating appliances & systems or water heaters may also contribute to above “normal” levels of CO. Automotive exhaust containing CO may also enter homes and buildings and be the cause of above “normal” levels. The Carbon Monoxide News link is filled with accidents of CO poisoning occurring from misuse of gasoline generators, propane floor scrubbers, barbeque devices, gasoline powered snow mobiles, boats, scrubbers and other such systems.

Caution should always be the guideline and efforts should be practiced to increase an awareness to the causes of CO entering the breathable air space as well as the hazards to health that can occur to less than healthy people when levels found greater than outside are measured inside. It must also be noted that levels outside a building during some periods of time can contain enough carbon monoxide to be a hazard for vulnerable populations. These are predominantly in urban areas where carbon monoxide from auto exhaust is highly concentrated. Any where you have gasoline powered engines there is a foreseeable hazard of exhaust gases being in the air.

We should also all be reminded that the current acceptable standards for carbon monoxide alarm detectors prevent them from sounding any alarm notification to levels that may be temporarily ok for healthy people but which may be harmful or worse to our vulnerable populations. An example of this would be the UL 2034 alarm standard that has those listed devices withholding alarm signals until 70 PPM of CO is present for up to 4 hours. Chronic and fluctuating levels below that concentration may never be detected and remember, pushing the test button does not necessarily tell the consumer that the sensor is operable or accurate. The “sound” you hear only tells you that when you push the test button and hear the alarm sound that the test button action makes an alarm sound.

A technician must measure “normal” levels of carbon monoxide before entering a building. Once inside, the technician must measure again to determine the concentration of CO above “normal”. The consumer is helpless to outside levels.