

NOW IS GREAT TIME TO TEST YOUR HOME FOR RADON!

Tight budgets and the increasing costs of heating fuels spurred many of us to make our homes as energy efficient as possible. This included caulking or sealing up any drafty windows and outlets as well as reinforcing the seals around outside doors to keep out the cold winter winds.

Unfortunately, our efforts to seal out the cold may have us entertaining a dangerous houseguest – Radon.

Houses, particularly in heating months, act like large chimneys. As the air in your house warms, it rises to leak out the attic openings and around the upper floor windows. This creates a small suction at the lowest level of the house, pulling the radon out of the soil beneath the foundation and into the house.

Radon is a colorless, odorless, tasteless radioactive gas. It is produced during the natural (radioactive) breakdown of uranium in soil, rock, and water. It can get into any type of building – homes, offices, and schools – and build up to high levels. Long-term exposure to radon increases the potential for lung cancer and is estimated to be the cause of thousands of deaths per year in the United States. Scientists believe radon exposure is the second leading cause of lung cancer. Only smoking causes more lung cancer deaths. (If you smoke and your home has high radon levels, your risk of lung cancer is especially high.).

Radon gas breaks down into radioactive particles that can get trapped in your lungs when you breathe. As these little particles break down further, they release small bursts of energy; like little explosions. It is the little explosions that can cause damage and mutation of sensitive lung tissue cells and leads to lung cancer over the course of time.

Not everyone exposed to elevated levels of radon will develop lung cancer. Some people have better immune function than others and their systems recognize and destroy the mutant cells before they can multiply into a cancerous growth. The amount of time between exposure and the onset of recognizable cancer may be many years.

You and your family are most likely to get your greatest exposure in your home. One out of three homes in Minnesota have an elevated radon level. This is higher than the national average of one in fifteen. Data collected in Kanabec County has shown our rate of homes with elevated radon levels is closer to 2 out of 5. This is slightly higher than the state average.

By now you must be wondering if you should breathe your next breath. Relax! Radon, as we said, occurs naturally and is everywhere so we cannot eliminate it from our environment. We can, however, protect ourselves from continuous high levels of exposure due to elevated concentrations of radon in our homes.

The first step to protecting ourselves from unnecessary radon exposure is to test the air in our homes to see what our indoor level of radon actually is. Wintertime is the best time to test your home for radon because our homes are sealed up tight to save heating dollars. Early springtime is also a good time here in Minnesota because we are still heating our homes and keeping the doors and windows closed most of the time. Testing is VERY simple and inexpensive to do.

There are two basic types of test kits: long-term which take 90+ days to complete, or the more popular, short-term test kits. Radon kits may be purchased at many hardware

or home improvement stores. **Short-term test kits are also available at the Kanabec County Public Health office to county residents for \$2. These kits are available because KCPH received a State Indoor Radon Grant, which helps defray the cost.**

These short-term test kits look like a small envelope. This envelope holds a small charcoal canister. You hang or place the envelope in the lowest level of habitable or "lived in" space in your home. It hangs in your home for 4 days and then you seal it up and drop it in the mail sending it off to the processing lab for measuring. The lab will return the test result information to you in 7 to 10 days.

The current acceptable exposure level recommended by the Environmental Protection Agency is 4 pCi/L. If your test results are higher than 4 it is recommended you do a follow-up short-term test to confirm your result. Consistent test levels greater than 4 pCi/L indicate a need for further investigation and evaluation of your indoor air environment. Mitigation, the taking of steps to reduce radon entry into your home, is recommended for homes that test greater than 4 pCi/L. Often, mitigation can be done with minimal expense and inconvenience to homeowners. Fixing an elevated radon problem is beneficial to all members of the household; especially, young children because their lung tissue is more susceptible to damage by radon.

Generally reducing radon levels requires a combination of sub-slab suction via a PVC vent pipe and an exhaust fan and sealing the cracks in the basement floor/walls. While this may sound complicated but the average home can be mitigated for \$500 to \$2,500.

It is important to be aware that all new homes can be built with radon reduction techniques incorporated right into the construction phase and the cost averages less than \$1,000. If you are in the process of building or considering new construction please consult with your builder and explore your options. A small investment now may be well worthwhile when you consider the possible health risks.

For more information about radon testing or if you have other questions about radon feel free to contact: Jackie at Kanabec County Public Health 679-6320. Other resource contacts for radon information: National Radon Hotline: 1-800-SOS-RADON; online epa.gov/iaq/contacts.htm or MN Department of Health, Division of Environmental Health P.O.Box 64975, St. Paul, MN 55164-0975 Phone # 1-800-798-9050.

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