

Why Radon Belleville IL Homeowners Should Test Their Basements

Understanding the Invisible Risk in Metro East Illinois

When I bought my first home in Belleville back in 2015, radon was the last thing on my mind. I had the usual checklist: roof age, furnace condition, foundation cracks. The realtor never mentioned radon, and neither did the home inspector. It wasn't until a neighbor mentioned testing his crawl space that I started looking into it. That is when I learned just how common radon gas is in Metro East Illinois soil, and why radon belleville il is a topic every homeowner here should take seriously.

Radon comes from the natural breakdown of uranium in soil and rock. It moves up through the ground and into homes through cracks in slabs, gaps around pipes, and even through crawl space vents. The EPA estimates that radon causes about 21,000 lung cancer deaths each year in the United States, making it the second leading cause of lung cancer after smoking. The American Lung Association has been sounding the alarm for decades, yet many people in Edwardsville, O'Fallon IL, Collinsville, and Belleville still think it is someone else's problem.

How Radon Gets Into Your Home

The problem is not just that radon exists in the soil. The real issue is how easily it finds its way inside. Homes act like vacuums. As warm air rises and escapes through the attic, it pulls air from the ground up through the foundation. That suction draws radon gas along with it. In winter, the effect is even stronger because the house is sealed tight. I have seen homes with radon levels well above the EPA action level of 4 picocuries per liter, and the homeowners had no idea.

Basements and crawl spaces are the primary entry points. Concrete slabs develop hairline cracks over time. Sump pumps, floor drains, and utility penetrations all create pathways. Even a well-sealed basement can let radon in if the soil underneath has high uranium content. That is why radon testing is not just for older homes. New construction can have the same problem, especially if the builder did not include radon-resistant construction techniques.

The Only Way to Know Is to Test

You cannot smell radon. You cannot see it or taste it. The only way to know if your home has high radon levels is to run a proper radon test. Short-term tests with a charcoal radon detector can give you a snapshot in two to seven days, but they are sensitive to weather and ventilation. Long-term tests that run for three to twelve months give a more accurate average of your year-

round exposure. I always recommend long-term testing for homeowners who plan to stay in their home for more than a year.

Several types of radon detectors are available. Passive devices like charcoal canisters or alpha track detectors are cheap and widely available. Active electronic monitors give continuous readings and can be useful for tracking changes over time. The key is to place the detector in the lowest livable level of the home, away from drafts and high humidity. Follow the instructions exactly. I have seen people open the package too early or place the detector near a window, which ruins the result.

If you live in Belleville, you can order a test kit from the National Radon Program or buy one at a hardware store. But for the most reliable results, many homeowners choose to hire a professional radon testing service. A professional can place the device correctly, seal the home for the proper duration, and interpret the results. Companies like Air Sense Environmental serve the Metro East Illinois area and can handle both testing and follow-up if mitigation is needed.

What High Radon Levels Mean and What to Do

If your test shows radon levels at or above 4 pCi/L, the EPA recommends taking action to reduce them. Mitigation is not as drastic as you might think. The most common and effective system is sub-slab depressurization. This involves drilling a small hole in the basement floor, installing a pipe that goes through the slab into the gravel below, and attaching a fan system that pulls radon gas from under the house and vents it safely outside. The fan runs continuously, but it uses very little electricity.

I have seen sub-slab depressurization bring a home from 12 pCi/L down to below 1 pCi/L in a matter of hours. The system is unobtrusive. The pipe can be routed through a closet or a utility room, and the fan can be installed in the attic or on the exterior wall. Some homes also benefit from sealing cracks and gaps with a radon sealant, but sealing alone is rarely enough. The combination of sealing and active soil depressurization is the gold standard.

Radon Resistant Construction for New Homes

If you are building a new home in Edwardsville, O'Fallon IL, or Collinsville, ask your builder about radon-resistant construction. The basic approach includes a layer of gravel under the slab, a vapor barrier, a sealed sump or drain, and a passive vent pipe that runs up through the roof. This setup costs very little during construction, and it can be activated later with a fan if testing shows high levels. It is a classic case of an ounce of prevention being worth a pound of cure.

I have seen too many new homes built without these features, only to require expensive retrofits later. The International Residential Code now includes radon-resistant construction

requirements for areas with high radon potential, but enforcement varies by county. Metro East Illinois is in Zone 1 on the EPA's map, which means the average radon level is predicted to be above the action level. Builders in Belleville should be following these guidelines, but not all of them do.

Why Radon Belleville IL Matters for Your Family's Health

Radon exposure is cumulative. The longer you live in a home with elevated radon levels, the greater your risk of lung cancer. Children are especially vulnerable because their lungs are still developing and they breathe faster than adults. The American Lung Association recommends testing every home, and if levels are high, fixing it promptly. This is not about fearmongering. It is about simple, proven illness prevention.

I have met homeowners who delayed mitigation because they thought it would be disruptive or expensive. In reality, a typical sub-slab depressurization system costs between \$800 and \$2,500, depending on the complexity of the installation. That is a small price for peace of mind. Many systems pay for themselves in increased home value and reduced health risk. Some local utilities and health departments even offer rebates or free test kits.

Practical Steps You Can Take Right Now

If you have not tested your home yet, start there. Order a test kit or call a professional radon testing service in Belleville. Air Sense Environmental is one of the companies that serves Metro East Illinois, including Edwardsville, O'Fallon IL, Collinsville, and Belleville. They can walk you through the process and interpret the results.

While you wait for the test, you can take a few simple measures to reduce radon entry. Seal cracks in the basement floor with a quality radon sealant. Improve ventilation by opening windows on the lowest level when weather permits, especially during the test. Avoid using exhaust fans that might increase the pressure difference between the house and the soil. These steps are not a substitute for mitigation, but they can lower your radon levels temporarily.

Remember that radon testing is not a one-time event. Radon levels can change over time due to soil settling, foundation shifts, or changes in your heating and cooling system. The EPA recommends retesting every two years, or after any major renovation that affects the foundation. If you install a mitigation system, test it once a year to make sure it is still working properly.

I have been involved in the radon mitigation field for many years, and I can tell you that the most common regret homeowners express is not testing sooner. The second most common regret is waiting too long to act on a high test result. [Radon belleville il](#) is not a dramatic

headline, but it is a real and present issue for thousands of families in the area. The good news is that the solution is straightforward, affordable, and effective.

If you are reading this and have not yet tested your home, I encourage you to make it a priority. Visit the EPA's radon website, contact the National Radon Program, or call a local professional. The cost of a test is minimal compared to the health of your family. And if you find high levels, do not panic. Mitigation works. Your home can be safe, and your family can breathe easier.