

Why Radon Measurement Matters for St. Louis Homeowners and Buyers

When I first moved to St. Louis, I didn't give much thought to what might be lurking in my basement. A few years later, after a friend's home inspection revealed elevated radon levels, I started looking into the science behind it. Radon is a naturally occurring radioactive gas that comes from the decay of uranium in soil and rock. It seeps into homes through cracks in foundations, gaps around pipes, and other openings. Because it is odorless, colorless, and tasteless, the only way to know if your home has a problem is through proper radon measurement. That simple act can make the difference between living in a safe environment and being exposed to a known carcinogen.

How Radon Gets Into Your Home

St. Louis sits on geology that can produce radon. The gas moves from the soil into the lowest level of a house. Once inside, it can build up to concentrations that exceed the Environmental Protection Agency's Action Level of 4 picocuries per liter. The EPA recommends fixing any home with a reading above that threshold. But even levels below the Action Level carry some risk, and many experts suggest mitigation if readings are between 2 and 4 pCi/L. The only way to know where your home stands is to perform a reliable radon measurement.

The Main Approaches to Radon Testing

There are several ways to test for radon, and each has its place. The choice depends on your situation: are you a homeowner wanting a baseline reading, or are you in the middle of a real estate transaction and need quick answers?

Short-Term Radon Tests

These tests stay in the home for two to seven days. The most common device is a charcoal canister, which absorbs radon gas. After the test period, you mail it to a lab for analysis. These are inexpensive and widely available. But they only capture a snapshot of radon levels, which can fluctuate with weather, season, and ventilation. A short-term radon test is best for initial screening or when you need an answer quickly.

Long-Term Radon Tests

Long-term tests run for 90 days to a full year. They give a more accurate picture of average radon exposure. Common types include alpha-track detectors and electret ion chambers. These devices measure cumulative exposure over time and are less affected by short-term

spikes. If you own a home and want to make an informed decision about mitigation, a long-term radon test is the better choice.

Continuous Monitors

For situations where time is tight, a continuous radon monitor like the CRM-510 provides results in as little as 48 hours. These electronic devices sample the air hourly and can detect variations throughout the day. They are often used in real estate transactions because they give fast, reliable data. Air Sense Environmental uses such equipment to provide rapid [radon measurement](#) for home buyers and sellers in the St. Louis area. The continuous monitor also shows if conditions during the test were normal, which helps validate the result.

Why Real Estate Transactions Need Special Attention

When you are buying or selling a home, radon testing becomes a point of negotiation. Many buyers ask for a test as part of the home inspection. If the results come back above the Action Level, the seller may need to install a radon mitigation system. The most common method is sub-slab depressurization, which pulls radon from beneath the foundation and vents it outside. Companies like RadonAway and Swan Analytics manufacture systems and components for this purpose. The cost of mitigation is usually modest compared to the health risks and the potential impact on property value.

In St. Louis real estate, a fast and accurate radon measurement can prevent delays. Sellers benefit from testing early so they can address issues before listing. Buyers gain peace of mind knowing the home they are about to purchase is safe. The Missouri Department of Health provides guidance on radon testing and maintains a list of certified professionals under the National Radon Proficiency Program. Working with a qualified tester ensures the results are reliable and defensible.

Choosing the Right Test Kit

If you decide to test your own home, you can buy a radon test kit from a hardware store or online. But not all kits are equal. A charcoal canister is fine for a short-term radon test, but you must follow the instructions carefully. Keep the device in the lowest livable area of the house, close all windows and doors for at least 12 hours before the test, and avoid placing it in drafts or direct sunlight. After the test, seal the canister and mail it to the lab right away. Delays can skew the results.

For a more thorough assessment, consider an electret ion chamber or alpha-track detector for a long-term test. These require less attention during the test period and give a more stable reading. The trade-off is that you wait months for the answer. If you need results for a real

estate transaction, a continuous radon monitor is the way to go. Air Sense Environmental provides these monitors for St. Louis area homes and delivers results within days.

Understanding Your Results

Once the radon measurement is complete, you will get a number in pCi/L. If it is below 2, you are in good shape, but you might still consider testing again in a few years. If it is between 2 and 4, the EPA recommends considering mitigation. Above 4, you should take action. Fixing the problem usually involves sealing cracks and installing a vent pipe with a fan. A certified radon mitigation contractor can design a system that works for your home's foundation type.

After mitigation, it is important to test again to confirm the system is working. Some homeowners install a continuous radon monitor as a permanent check. Others use a short-term radon test kit yearly. Either way, ongoing radon measurement is part of responsible homeownership.

Common Myths and Misconceptions

- "My neighbor tested low, so I don't need to test." Radon levels vary from house to house, even next door. Soil and construction differences matter.
- "Radon is only a problem in basements." While levels are often highest there, radon can also be found on upper floors. Always test the lowest occupied level.
- "A short-term test is enough for a final answer." Short-term tests are a good start, but long-term tests or continuous monitors give a more complete picture.

Final Thoughts on Radon Measurement

Radon is a serious health risk, but it is also a manageable one. The first step is a proper radon measurement. Whether you use a simple radon test kit or hire a professional with a continuous radon monitor, the key is to test correctly and act on the results. In St. Louis, where geology and housing stock vary widely, testing every home is worthwhile. If you are buying or selling, a prompt test can keep the deal on track. If you are a homeowner, a long-term test gives you the data you need to protect your family.

I have seen too many people skip the test and later wish they had not. The cost of a test is small compared to the peace of mind it provides. And if you do find elevated levels, mitigation is straightforward and effective. Do not let uncertainty linger. Get a radon measurement done, understand your exposure, and take control of your indoor air quality.