

Understanding Radon Gas Risk in Your St. Charles County Home

Why Radon Gas Risk Matters for Local Homeowners

When you think about threats to your home's air quality, things like mold, dust, or volatile organic compounds might come to mind. But there is another hazard that is far more insidious and surprisingly common in our area: radon gas. For homeowners in St. Charles County, including O'Fallon, St. Peters, and Wentzville, understanding radon gas risk is not just an abstract concern. It is a practical, health-driven necessity that deserves your attention. Radon is a naturally occurring radioactive gas that comes from the decay of uranium in soil. It seeps into homes through cracks in foundations, gaps around pipes, and other entry points. Because it is odorless, colorless, and tasteless, the only way to know if it is present is through proper radon testing.

The connection between radon gas and health risks is well documented. The EPA has classified radon as the second leading cause of lung cancer in the United States, right after smoking. For non-smokers, it is the number one cause. This is not a scare tactic. It is a fact backed by decades of research from the EPA, the Missouri Department of Health, and national health organizations. When you breathe in radon gas, the radioactive particles can damage the cells lining your lungs. Over time, that damage can lead to lung cancer. The risk increases with higher radon levels and longer exposure periods, which is why addressing the problem early is so important.

Radon Levels in St. Charles County: What the Data Shows

If you live in St. Charles County, you are in an area that has a higher potential for elevated radon levels. The EPA has mapped radon zones across the country, and much of Missouri falls into Zone 1, which means average indoor radon levels are predicted to be above the action level of 4 picocuries per liter (pCi/L). That does not guarantee every home has a problem, but it does mean the probability is significant enough that every homeowner should test. I have seen homes in O'Fallon with readings over 8 pCi/L, and others in Wentzville that came in well below 2 pCi/L. The variability is real, and it depends on soil composition, construction type, and even how the home was built. That is why relying on your neighbor's test results is not enough. You need your own data.

The process of radon testing is straightforward. You can start with a short-term test, which typically takes 48 to 90 hours. These are often charcoal-based radon test kits that you place in your lowest lived-in level of the home. They give you a quick snapshot, but they can be influenced by weather, ventilation, and other factors. For a more accurate picture, a long-term

test is better. These run for 90 days to a year and capture seasonal variations. Many homeowners I talk to are surprised to learn that radon levels can fluctuate with the seasons. In winter, when homes are sealed up tight, levels often rise. In summer, with windows open, they can drop. A long-term test smooths out those spikes and gives you a reliable average.

There is also the option of a continuous radon monitor, which is an electronic device that tracks radon levels over time and can show you daily or even hourly changes. These are great for post-mitigation verification, but for initial screening, a simple test kit from a local supplier or the Missouri Department of Health works well. The key is to actually do the test. I have met too many homeowners who bought a kit, set it on a shelf, and forgot about it. That is like buying a smoke detector and leaving it in the box.

What to Do If Your Radon Levels Are High

If your test shows levels at or above 4 pCi/L, the EPA recommends taking action. That is where radon mitigation comes in. The most common and effective method is sub-slab depressurization. This involves drilling a small hole through the basement floor, creating a suction point beneath the slab, and venting the radon gas to the outside using a radon vent pipe and a fan unit. The fan creates negative pressure under the slab, pulling the gas away before it can enter your home. It is a proven, reliable technique used by professionals like those at Air Sense Environmental, who specialize in radon mitigation for homes in St. Charles County.

A properly installed radon mitigation system can reduce radon levels by 90 percent or more. I have seen homes go from 12 pCi/L down to 1.5 pCi/L after installation. The system is not disruptive. The fan unit is usually installed outside or in an attic, and the pipe runs up the side of the house. It runs continuously, and the only maintenance is an occasional check to make sure the fan is still running. It is a small price to pay for peace of mind when you consider the [radon gas risk](#) involved. Some homeowners worry about the cost, but when you compare it to the potential health risks and the cost of treating lung cancer, mitigation is one of the best investments you can make in your home's safety.

Radon Testing and Mitigation: A Practical Guide

If you are a homeowner in St. Charles County, here is a simple plan to follow:

- Start with a short-term test from a reputable source. Place it in the lowest lived-in area, like a basement or a first-floor room if you have no basement.
- If the result is 4 pCi/L or higher, follow up with a long-term test to confirm the average. Do not panic; a single high reading does not mean your home is uninhabitable.
- If the long-term test also shows elevated radon levels, contact a certified radon mitigation professional. Companies like Air Sense Environmental can assess your

home and design a system tailored to your foundation type.

- After mitigation, test again to verify that radon levels have dropped below the action level. A continuous radon monitor can provide ongoing reassurance.
- Retest every few years or after any major renovations that affect your foundation or ventilation.

One thing I have learned from talking to homeowners is that many assume radon is a problem only for older homes. That is not true. New homes can have radon issues too, sometimes because of how the soil was graded or how the foundation was poured. Modern construction techniques can actually trap radon gas if not designed with mitigation in mind. That is why building codes in some areas now require passive radon vent pipes to be installed during construction. Even so, testing is still necessary because passive systems are not always effective on their own.

The Role of Local Professionals and Public Health

The Missouri Department of Health provides resources for radon testing and maintains a list of certified mitigators. They also offer low-cost radon test kits during certain times of the year. It is worth checking their website or giving them a call. The EPA also publishes detailed guides on radon mitigation and testing, and their recommendations are the gold standard in the industry. If you are considering doing the work yourself, I would advise against it. Radon mitigation requires specialized knowledge and equipment. A poorly installed system can actually increase radon levels or create other problems like backdrafting of appliances. Trusting a professional like Air Sense Environmental ensures the job is done right and your family is protected.

Living in St. Charles County means we share a community and a common environment. The geology here makes radon a real concern, but it is one we can manage. I have seen too many families ignore the issue for years, only to discover high radon levels when they finally decide to sell their home. By then, they have been exposed to unnecessary health risks for a long time. That is why I always encourage proactive radon testing. It is a simple, inexpensive step that can make a huge difference in your long-term health.

Remember, radon gas risk does not go away on its own. It is there whether you test for it or not. But by testing and mitigating when needed, you take control of the situation. You turn an invisible threat into a manageable one. That is the kind of peace of mind that every homeowner in O'Fallon, Wentzville, St. Peters, and all of St. Charles County deserves.