

Why Radon Mitigation West St Louis County Homes Need Professional Testing First

If you live in West St. Louis County, you already know the area has a mix of older homes with basements and newer construction built on slab foundations. What many homeowners don't realize is that the geology under Chesterfield, Ballwin, Wildwood, and Town and Country can produce elevated radon levels. I've spent years testing and mitigating radon in these neighborhoods, and the single biggest mistake I see is people skipping the testing step and jumping straight into mitigation work.

Radon is a radioactive gas that comes from the natural decay of uranium in soil. It moves up through the ground and enters homes through cracks in the foundation, gaps around pipes, and sump pumps. The only way to know if your home has a problem is to test for it. Without a proper test, you might install a system that's overkill for your house or, worse, one that doesn't address the actual entry points. That's why any conversation about radon mitigation west st louis county has to start with a reliable test.

The Testing Options That Actually Work

There are two main categories of radon testing: short-term and long-term. Short-term tests use a carbon canister or a continuous radon monitor and typically run for two to seven days. These are useful for getting a quick screening result during a real estate transaction. Long-term tests, which last at least 90 days, give a more accurate picture of your home's year-round average. The EPA and the Missouri Department of Health and Senior Services (MoDHR) both recommend long-term testing for the most reliable data.

I prefer using continuous radon monitors for short-term work because they record hourly readings and can show spikes or patterns that a single canister might miss. For long-term testing, a lithium chloride detector is my go-to. It's passive, requires no power, and can sit in a basement corner for three months without any fuss. Both methods are valid, but the key is following the testing protocol: keep the house closed for at least 12 hours before the test starts, place the device in the lowest lived-in level of the home, and don't move it around during the test period.

Why Testing Alone Isn't Enough

A test result above 4 pCi/L means you need to fix it. But fixing it isn't a one-size-fits-all job. I've seen homes in Wildwood with a crawl space that needed a different approach than a finished basement in Chesterfield. That's where professional radon mitigation comes in. The most common method is active soil depressurization, often installed as a sub-slab depressurization

system. It involves running a radon vent pipe from the soil or aggregate layer under the slab up through the roof, with a radon fan pulling air from below the house and venting it outside.

When I install these systems, I always include a manometer, specifically a U-tube manometer, mounted on the pipe in the basement. That little gauge tells you the system is working. If the liquid levels are even, the fan isn't pulling vacuum, and you know something is wrong. Without it, you'd never know if the system failed. It's a small detail, but it makes the difference between a system that works and one that's just a pipe sticking through the roof.

For homes in Ballwin and Town and Country where the foundation is a poured concrete slab, sub-slab depressurization is usually the best solution. The system creates a negative pressure zone under the slab, drawing radon-laden air away from the house before it can enter. The radon fan runs continuously, and the vent pipe exits above the roofline so the gas dissipates safely. I've seen these systems reduce radon levels from 12 pCi/L down to below 1 pCi/L in a matter of hours.

New Construction and Radon-Resistant Construction

One question I hear a lot is whether new homes in West St. Louis County are built to resist radon. The answer is sometimes, but not always. Radon-resistant construction techniques include placing a layer of clean gravel under the slab, laying a vapor barrier, sealing all foundation openings, and installing a radon vent pipe that can later be connected to a fan if needed. These features are required in some jurisdictions but not all. Even if your new home in Wildwood or Chesterfield was built with these precautions, you should still test after you move in. A passive pipe without a fan may not be enough to keep radon below the action level, especially if the soil under your lot has high uranium content.

I've tested homes in Town and Country that were built in the last five years and still came back at 6 pCi/L. The radon-resistant construction helped, but the soil conditions required an active system with a radon fan to bring the levels down. That's a lot easier to retrofit if the vent pipe was installed during construction, but it's still an added cost. The lesson is that no house, new or old, is immune to radon. Testing is the only way to know.

Working With a Professional

When you look for a company to handle [radon mitigation west st louis county](#), you want someone who does both testing and mitigation, and who understands the local geology. Air Sense Environmental has been doing this work in Chesterfield, Ballwin, Wildwood, and Town and Country for years. They know which subdivisions sit on shale, which ones have limestone, and how those formations affect radon movement. A good mitigator will explain the plan

before they start, show you the equipment they'll use, and walk you through the manometer reading after the system is installed.

I always tell homeowners to ask about the warranty on the radon fan and the labor. A quality fan should last at least five years, and the installation should be guaranteed for at least a year. Also ask whether the company will come back and retest after the system is running. A post-mitigation test is the only way to confirm the system is working. If a company doesn't offer that, find one that does.

Practical Tips for Homeowners

If you're planning to test your home yourself, buy a test kit from a reputable source. The carbon canister kits sold at hardware stores are fine if you follow the instructions exactly. Keep the kit sealed until you're ready to start, place it in the lowest livable area of the house, and don't open windows or run exhaust fans during the test. If you're working with a realtor during a home sale, make sure the testing company uses a continuous radon monitor so you get hourly data, not just a single average. That data can help you negotiate repairs or a mitigation system before closing.

Radon mitigation west st louis county is a straightforward process when done correctly. Start with a proper test, hire a professional who understands the area, and verify the results afterward. Your family will breathe easier, and you'll have peace of mind knowing your home is safe.