

Understanding Radon Levels Missouri Homeowners Should Know

Why Radon Matters in St. Charles County

Living in St. Charles County means you are part of a region where radon poses a real risk. I have seen too many homeowners assume that because their house looks fine, the air inside is safe. That assumption can cost you. Radon is a radioactive gas that comes from the natural breakdown of uranium in soil and rock. It seeps into homes through cracks in foundations, gaps around pipes, and even through sump pumps. The tricky part is that you cannot see, smell, or taste it. The only way to know if you have a problem is to test for it.

When I first moved to Missouri, I did not think much about radon. Then a neighbor in O'Fallon mentioned that his test results came back high. That got me curious. I started looking into what the numbers actually mean and how they compare across the state. What I found is that radon levels missouri are a serious concern, especially in counties like ours. The US EPA has set an action level of 4 picoCuries per liter of air. Above that, they recommend fixing your home. But even levels between 2 and 4 pCi/L can be a risk, and many experts suggest mitigation at those lower numbers too.

Testing is the First Step

You cannot guess your radon levels. You have to measure them. The most common approach is a short-term radon test, which sits in your home for two to seven days. These are cheap and easy to find at hardware stores or through services like Air Sense Environmental. But short-term tests have a catch. They only show you a snapshot. Radon levels can swing wildly with weather, season, and even how you run your heating or cooling. That is why many professionals recommend a long-term radon test, which stays in place for at least three months, often up to a year. A long-term test gives you an average reading that is much closer to your actual exposure.

In St. Charles, I have helped friends set up both types. The short-term test is great if you are in a hurry, like during a real estate transaction. Buyers and sellers often need results quickly. But if you own your home and plan to stay, a long-term test is smarter. It smooths out the spikes and dips that come with changing seasons. For example, wintertime radon levels tend to be higher because houses are sealed tight and the stack effect pulls gas up from the ground. Summertime radon levels can be lower if windows are open, but air conditioning can also create negative pressure that draws radon inside. A long-term test accounts for all of that.

What Radon Levels Mean in Missouri

Missouri sits on geological formations that release radon at higher rates than many other states. The Missouri Department of Health has maps showing that much of the state, including St. Charles County, falls in Zone 1, which means predicted average indoor radon levels above 4 pCi/L. That is not a guarantee every home will be high, but it is a strong warning. When I look at actual test data, I see that [radon levels missouri](#) vary a lot even within a single neighborhood. A house in Wentzville might test at 2 pCi/L while the house next door reads 8 pCi/L. That is why you cannot rely on your neighbor's results. You need your own test.

One thing that surprises people is that new homes are not automatically safe. Radon-resistant construction techniques exist, like installing a layer of gravel and plastic sheeting under the slab and running a vent pipe up through the roof. But not all builders do it right, and even a well-built house can develop cracks over time. If you are buying a new home in St. Peters, ask if it was built with radon-resistant features. If the builder skipped them, you can still test and fix it later. It is easier to add a system during construction, but retrofits work well too.

Mitigation: When and How

If your test comes back above 4 pCi/L, you need radon mitigation. The most common and reliable method is sub-slab depressurization. A contractor drills a hole through the basement floor, digs out a small pit, and installs a pipe that runs up through the roof. A radon fan is attached to the pipe, and it runs continuously, creating suction under the slab. That suction pulls radon-laden soil gas away from the house and vents it safely outside. This is called soil suction, and it works because it changes the pressure difference between the soil and your home.

I have seen these systems installed in homes across O'Fallon and Wentzville. The cost usually ranges from \$800 to \$1,500, depending on the house. It is not cheap, but it is far less than the health cost of long-term radon exposure. The US EPA estimates that radon causes about 21,000 lung cancer deaths per year in the U.S. That is a big number, and it is largely preventable. After mitigation, you should retest to confirm the system is working. Many installers, including Air Sense Environmental, offer a guarantee that levels will drop below 4 pCi/L.

Seasonal Patterns and Practical Tips

If you do a short-term test in July and get a low reading, do not assume you are safe in January. As I mentioned, wintertime radon levels are often higher. But the reverse is also true. If you test only in winter, you might overestimate your annual average. The best approach is to test during a season that represents your typical living conditions, or better yet, run a long-term test that covers both winter and summer. A sixty-day test period can catch meaningful shifts,

especially if you place the test in the lowest livable level of your home, where radon concentration is usually highest.

Another tip is to test before and after you make changes to your home. If you finish a basement, seal cracks, or install a new HVAC system, your radon levels can change. I once helped a friend in St. Charles who sealed his basement floor and his radon level went up because he trapped the gas and it had nowhere to go except into the living space. He ended up needing a mitigation system anyway. The lesson is that radon is stubborn. You have to measure it to manage it.

The Big Picture for Missouri Homeowners

When I talk to people about radon levels missouri, I tell them that testing is the cheapest insurance you can buy. A \$15 test kit from the hardware store could save your family from a serious health risk. If you find a problem, mitigation is straightforward and effective. The technology has been around for decades. The challenge is that too many homeowners skip the test because they do not believe the problem is real. But the data from the Missouri Department of Health and the US EPA is clear. Missouri has high radon potential, and St. Charles County sits in the middle of it.

If you live in St. Charles, O'Fallon, St. Peters, or Wentzville, you owe it to yourself to test your home. It takes a few days of your time and a small amount of money. If the results are high, call a professional who specializes in radon mitigation. They will walk you through the options, whether that is sub-slab depressurization, a radon fan system, or other soil suction methods. The peace of mind is worth it. I have seen families go from worried to relieved after a simple test and a straightforward fix. That is the kind of outcome that makes all the effort worthwhile.