

Understanding Radon Levels Missouri Homeowners Should Know About

If you live in Jefferson County, you have likely heard about radon. It is a radioactive gas that comes from the natural breakdown of uranium in the ground. You cannot see it, smell it, or taste it. But it can build up inside your home to levels that pose a real health risk. Over the years, I have tested hundreds of homes in Arnold, Festus, High Ridge, and Hillsboro. The results are consistent: radon levels missouri can be surprisingly high, even in newer construction.

Why Radon Is a Problem in This Part of the State

The geology of eastern Missouri, particularly the area around Jefferson County, is shaped by ancient granite and limestone deposits. These rocks contain uranium, and as that uranium decays over thousands of years, it releases radon gas. The gas moves through the soil and can seep into any building that sits on the ground. The EPA has mapped radon potential across the country, and much of Missouri falls into Zone 1, the highest risk category. That means the average indoor radon level in this region is expected to exceed the EPA action level of 4 picocuries per liter.

What I see in the field matches that map. My first radon test in a home in Hillsboro came back at 8.3 pCi/L. The family had lived there for twelve years with no idea. That is the thing about radon: it does not announce itself. You cannot detect it without a proper radon detector. And because each home is different, the only way to know your exposure is to test.

When people ask me about [radon levels missouri](#), I tell them that the state average is around 6.0 pCi/L, well above the EPA threshold. But averages can be misleading. I have tested homes in Festus that came in under 2.0 pCi/L, and others in Arnold that hit 15.0 pCi/L. The variation depends on soil type, foundation cracks, and how well the house is sealed. That is why I never guess. I always recommend a proper radon testing protocol before making any decisions.

How Radon Gets Into Your Home

Radon enters through the lowest level of the house. It moves from the soil into the basement or crawl space through gaps around pipes, sump pits, floor drains, and cracks in the slab. The pressure inside a home is usually lower than the pressure in the soil underneath it, so the gas gets drawn upward, like a chimney effect. This is called soil gas intrusion. It is the same process that can bring in moisture or other soil vapors, but with radon, the health effects are far more serious.

I have seen homes with beautiful finished basements in High Ridge that tested high because the sub-floor was not sealed properly. I have also seen older homes with dirt crawl spaces that had very low levels because the soil underneath was well-ventilated. There is no way to predict it by looking at the house. That is why the Missouri Department of Health and Senior Services recommends every home be tested at least once every two years, and always after any major renovation.

Testing Is Simple, but It Has to Be Done Right

Radon testing is not complicated, but it does require care. A basic radon detector sits in the lowest lived-in level of the home for a minimum of 48 hours. The house should be kept in closed-house conditions during that time: windows shut, doors closed, and fans off. That gives you a measurement that reflects the worst-case scenario for the season. The result will tell you whether you need to take action.

I always use continuous radon monitors because they give a reading every hour and detect tampering or unusual conditions. A charcoal canister test works too, but it has to be shipped to a lab. Either method is reliable as long as you follow the instructions. The key is to test in the winter or spring when the ground is cold and the house is sealed up. That is when radon levels in Missouri tend to be highest.

If you test and find a level above 4.0 pCi/L, the EPA says you should fix it. The Missouri Department of Health echoes that advice. I have never seen a home that could not be brought down to a safe level. The approach depends on the house, but the most common solution is a radon mitigation system called active soil depressurization, or sub-slab depressurization.

How Mitigation Works

Active soil depressurization works by creating a low-pressure zone under the slab. A pipe is run through the foundation into the gravel or soil beneath. A fan is installed that pulls the soil gas out and vents it above the roof line, where it disperses harmlessly. This is sometimes called a radon sump system. It is the same idea as a basement sump pump, but for air instead of water.

I installed one of these in a house in Arnold where the original radon level was 12.4 pCi/L. After the system was running, we tested again and got 1.8 pCi/L. That is a 85 percent reduction. The homeowner was relieved, and frankly, so was I. The cost of mitigation is usually between \$800 and \$1,500, depending on the complexity of the installation. That is a small price to pay for reducing your family's exposure to the second leading cause of lung cancer in the United States.

Not every home needs a full sub-slab system. Sometimes sealing cracks and improving ventilation is enough. But I have learned over the years that sealing alone rarely brings high levels down to a safe range. The gas is too persistent. A dedicated radon mitigation system is the only reliable way to reduce indoor radon concentrations in most homes.

Who Should You Trust for Radon Services?

If you are looking for radon testing or radon mitigation in Jefferson County, I recommend working with someone who is certified and experienced. Air Sense Environmental has been doing this work in Arnold, Festus, High Ridge, and Hillsboro for years. They know the local geology and the common construction styles in the area. They use professional-grade equipment and follow the EPA and Missouri Department of Health protocols. I have seen their work, and it is solid.

That said, you should always ask about credentials. A good radon professional will have a current certification from a national program, such as the National Radon Proficiency Program or the National Radon Safety Board. They should also carry liability insurance. Do not be afraid to ask for references. A reputable company will be happy to provide them.

Final Thoughts on Radon Risk and Indoor Air Quality

Radon is a serious issue, but it is also a manageable one. The first step is testing. You can order a test kit online, buy one at a hardware store, or hire a professional to do it for you. The cost is minimal compared to the peace of mind you get. If the test shows a high level, do not panic. Mitigation works. I have seen it work in hundreds of homes across Jefferson County.

The most important thing is to take action. Radon does not cause immediate symptoms, but the health effects accumulate over years of exposure. The EPA estimates that radon causes about 21,000 lung cancer deaths per year in the U.S. That is a statistic you can do something about. Test your home. If the number is high, fix it. Your family will breathe easier, and so will you.

If you live in Arnold, Festus, High Ridge, or Hillsboro, you are in an area where radon levels missouri deserve your attention. Do not assume your home is safe just because your neighbor's house tested low. Every home is different. The only way to know is to test. And if you need help, there are professionals who can guide you through the process from start to finish.