

Why York PA Radon Pros Recommend Testing Every Home

When I moved into my first house in York County, Pennsylvania, radon was the last thing on my mind. I had the usual checklist: checking the roof, inspecting the basement for cracks, making sure the furnace was up to code. A neighbor who had been through the process years before mentioned radon testing offhand, almost like an afterthought. That casual comment sent me down a rabbit hole of research, and what I learned changed how I think about indoor air quality entirely. Years later, after working alongside a team of York PA radon pros on dozens of home assessments, I can tell you this: the science behind radon gas is straightforward, but the decisions homeowners face are anything but simple.

Radon is a naturally occurring radioactive gas that comes from the decay of uranium in soil. It moves up through the ground and into the air, but when it seeps into a house through foundation cracks, sump pits, or gaps around pipes, it can accumulate to dangerous levels. The EPA estimates that radon is responsible for about 21,000 lung cancer deaths per year in the United States. That makes it the second leading cause of lung cancer after smoking. For homeowners in York County, where the geology includes significant amounts of granite and shale, the risk is real. The Pennsylvania Department of Environmental Protection has mapped much of the state as having high radon potential, and York County sits squarely in that zone.



What Radon Testing Actually Tells You

The first step toward understanding your home's radon levels is testing. A short-term test typically lasts between two and seven days. These are affordable and widely available at hardware stores or through local services. They give you a snapshot of radon concentrations during the test period. But that snapshot can be misleading. Radon levels fluctuate with weather, season, and even how often you open windows. A short-term test taken during a windy week in March might show low numbers, while the same test in August with the house sealed up could show something very different.

Long-term testing, on the other hand, lasts at least 90 days and gives a more accurate picture of the annual average. Many [York PA radon pros](#) recommend starting with a short-term test to get a quick reading, then following up with a long-term test if the results are borderline. The EPA action level is 4 picocuries per liter (pCi/L). If your test shows anything above that, you need to act. But even levels between 2 and 4 pCi/L carry some risk, and mitigation can still be worth considering.

I once helped a family in Springettsbury Township interpret their test results. Their short-term test came back at 3.8 pCi/L, just under the threshold. They almost shrugged it off. But when we

ran a long-term test over the winter, the average was 5.2 pCi/L. The difference was enough to push them into installing a mitigation system. That experience taught me to never rely on a single short-term test alone. The data is only as good as the conditions under which you collect it.



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How Radon Mitigation Works in Practice

If testing reveals high radon levels, the standard solution is a technique called sub-slab depressurization, which is a form of active soil depressurization. A contractor drills a hole through the basement floor, creates a suction point beneath the slab, and installs a radon fan that vents the gas outside through a pipe. The fan runs continuously, creating negative pressure under the foundation so that soil gases are pulled away from the house instead of drifting up through the slab.

I have seen systems installed in homes with crawl spaces, slab-on-grade foundations, and even finished basements. Each situation demands a slightly different approach. For a home with a finished basement, the contractor has to cut through tile or carpet, patch the hole afterward, and route the vent pipe along an exterior wall. It is not a trivial job, but it is one that a skilled radon mitigation team can complete in a day or two. The key components are the radon fan, the vent pipe, and a manometer. The manometer is a gauge that shows whether the fan is maintaining proper suction. If the manometer reading drops, you know the system needs maintenance.

Radon System Installation and Fan Replacement

Radon system installation is not a DIY project. The placement of the suction pit, the sizing of the fan, and the sealing of the floor slab all require experience. A poorly designed system can actually draw more radon into the house by creating a chimney effect. That is why you want professionals who have done dozens of installations in York County soil conditions. Over time, fans can wear out. Fan replacement is a routine maintenance task. Most radon fans are rated to last five to ten years, but dust, humidity, and power surges can shorten that lifespan. If your manometer shows no reading or a very low reading, it is time to call someone to check the fan.

I recall a case in West Manchester Township where a homeowner had a system installed ten years ago and never thought about it again. A follow-up test showed radon levels had crept back up. When we inspected the system, the fan was dead. The homeowner had never looked at the manometer. A simple fan replacement solved the problem, and levels dropped back below 2 pCi/L. That is why follow-up testing is so important. After a system is installed, the

EPA recommends testing again within a month to confirm it is working, and then every two years after that. I would add that any time you do a major renovation or change your heating system, you should retest as well.

The Role of Radon-Resistant Construction

For new homes, radon-resistant construction is the smartest approach. Builders in York County can install a gas-permeable layer of gravel under the slab, a vapor barrier, and a passive vent pipe that runs from the gravel up through the roof. This setup does not require a fan. It relies on natural pressure differences to draw radon out. If testing later shows elevated levels, the passive system can be converted to an active one by adding a fan. It is far cheaper to include these features during construction than to retrofit a system later.



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I have seen too many new subdivisions built without any radon precautions. The builders argue that they are not required by local code, so why add cost? But the cost of a passive system is a fraction of what a retrofitted active system costs. And the health risks are not theoretical. Radon exposure over many years is what causes lung cancer. You do not feel it, you do not smell it, and you do not notice it until the damage is done. That is what makes radon so insidious.

Choosing a Mitigation Service

When you look for help, you want someone who understands local geology, knows the common foundation types in the area, and has a track record of effective installations. The York PA radon pros I have worked with are a mix of testers, installers, and service technicians who focus exclusively on radon. They do not do general home inspection or waterproofing on the side. That focus matters because radon mitigation has its own set of best practices. A general contractor might install a fan that is too small or place the suction point in a spot that does not pull from the right area.

A good team will also explain the manometer to you, show you how to read it, and tell you what to do if the reading changes. They should offer follow-up testing as part of the service package. If they do not, find someone else. You need to know that the system actually reduced your radon levels. I always tell homeowners to insist on a post-mitigation test. Without it, you are guessing.

Practical Steps You Can Take Right Now

If you have not tested your home yet, start there. Buy a short-term test kit from a local hardware store or order one online. Place it in the lowest livable area of your home, usually the basement or first floor, and follow the instructions exactly. Keep windows and doors closed as much as possible during the test period. Mail the kit to the lab when you are done. The results come back in a few days. If the number is above 4 pCi/L, call a mitigation service. If it is between 2 and 4, consider a long-term test or go ahead and mitigate anyway. The peace of mind is worth the expense.



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For those who already have a system, check your manometer once a month. If it shows no suction, schedule a fan replacement. And schedule follow-up testing every two years. Radon levels can change as the ground shifts, water tables change, or new construction alters airflow patterns around your home.

Living in York County, Pennsylvania, means living in an area where radon is a real concern. But it is a concern you can manage with straightforward steps. Test, mitigate if needed, and maintain your system over time. The science is clear, the technology is proven, and the professionals are here to help. Whether you are buying a home, building one, or have lived in the same house for decades, radon testing and mitigation should be on your to-do list. It is one of the few things you can do to directly lower your family's risk of lung cancer.