

What You Should Know About Radon Reduction in York

Why Radon Is a Real Concern in York County

If you live in York County, Pennsylvania, you have probably heard about radon. Maybe a neighbor mentioned it when they sold their house, or you saw a testing kit at the hardware store. Radon is a naturally occurring radioactive gas that comes from the soil. It moves up through the ground and can enter buildings through cracks in the foundation, gaps around pipes, or any opening where the floor meets the earth. Because it is odorless, colorless, and tasteless, you cannot detect it without a test.

The geology of York County, like much of Pennsylvania, includes granite and other rocks that contain uranium. As that uranium decays, it releases radon. The EPA has designated much of this region as Zone 1, meaning the average indoor radon level is expected to exceed the action level of 4 picocuries per liter of air. That sounds technical, but the practical takeaway is simple: many homes in York City and the surrounding townships have elevated radon levels, and the only way to know is to test.

The Local Housing Stock and Radon Entry

York County has a mix of newer subdivisions and older neighborhoods, especially in York City itself. The historical housing stock here includes row homes, stone farmhouses, and mid-century ranchers. Older homes, in particular, often have basements with stone foundations, dirt floors in crawl spaces, or slab-on-grade construction that lacks a vapor barrier. These conditions allow radon to enter more easily. Even newer homes with poured concrete slabs can have radon problems if the slab develops hairline cracks or if the plumbing penetrations are not sealed well.

When I first moved to the area, I bought a house built in the 1950s. The basement had a sump pump and a few cracks in the floor. I did not think much about radon until a friend mentioned that her short-term radon test came back at 8 pCi/L. That got my attention. I bought a radon testing kit from a local hardware store and set it up in the basement. The result was 6.2 pCi/L. That is above the EPA action level, so I started looking into [radon reduction in York](#).

Testing First: Short-Term vs. Long-Term

Before you spend any money on radon mitigation systems, you need reliable test results. The EPA recommends starting with a short-term radon test, which typically lasts two to seven days. These are inexpensive and give you a quick snapshot. But radon levels can fluctuate with

weather, season, and how often you run your furnace or air conditioning. A single short-term test can give you a false sense of security or unnecessary alarm.

A better approach is to follow up with a long-term radon test that runs for at least 90 days. This gives you an average reading that accounts for daily and seasonal swings. I used a continuous radon monitor for a month, which gave me a running average. It showed that my summer radon levels were actually lower than winter levels because the house was open more often, but the year-round average still sat above the EPA threshold.



Understanding Radon Mitigation Systems

Once you confirm that your home has elevated radon, the next step is to hire a certified radon mitigator. The Pennsylvania Department of Environmental Protection recommends using someone who is certified through the National Radon Proficiency Program. These professionals understand local soil conditions and can design a system that works for your specific foundation type.

The most common method for homes with a basement or slab-on-grade foundation is sub-slab depressurization. This involves drilling a small hole through the concrete floor and pulling a suction point into the gravel or soil beneath. A radon fan is installed, usually in the attic or outside the house, and it creates a vacuum that draws soil gas out from under the slab and

vents it safely above the roofline. This is also called active soil depressurization, and it is the standard recommendation for most houses in York County.

I watched a certified contractor install one of these systems in my own home. They sealed the cracks in the basement floor, ran a pipe from the suction point up through the garage, and mounted the radon fan on the exterior wall. The whole job took about six hours. After the system was running for a week, I tested again and the level dropped to 1.3 pCi/L. That was a huge relief.

Other Approaches and Trade-Offs

For homes with crawl spaces or dirt floors, the approach is different. You might need a soil-gas barrier, which is a heavy plastic sheet laid over the dirt, combined with a vent pipe and fan. In some cases, sealing the crawl space and pressurizing the living area can help, but that is less common in York because of the local climate and foundation types.

One trade-off to consider is energy loss. A radon fan runs continuously, and if the vent pipe is not well insulated in an unconditioned attic, it can create a small amount of heat loss in winter. However, modern radon fans are very efficient, and the health benefit far outweighs the minor energy cost. Another consideration is noise. Some fans are noisier than others, so it is worth asking your mitigator about the decibel rating.

Radon-Resistant Construction for New Homes

If you are building a new home in York County, you have the chance to incorporate radon-resistant construction from the start. This usually includes a layer of gravel under the slab, a vapor barrier, a sealed sump or vent pipe stub, and an electrical outlet in the attic so a fan can be added later if needed. This approach is inexpensive upfront and can save thousands in retrofitting costs later. Many builders in Pennsylvania already follow these guidelines, but it is worth asking your contractor specifically about it.

Why Professional Mitigation Matters

Some homeowners try to handle radon reduction on their own. They might seal cracks and hope that is enough, or they buy a small fan from a big-box store and try to install it themselves. But radon mitigation is not a DIY project in most cases. The system needs to be designed so that the suction point is in the right location, the fan is sized correctly for the volume of soil gas, and the exhaust is placed where it will not re-enter the house through a window or soffit vent. A certified radon mitigator knows how to avoid these pitfalls.

The National Radon Proficiency Program maintains a list of qualified professionals. The Pennsylvania Department of Environmental Protection also provides guidance and can help

you find local contractors. When I called around for quotes in York City, I spoke with three different companies. One of them did not even ask about my foundation type or test results before giving a price. That was a red flag. The other two were thorough, asked about my basement layout, and explained how they would test after installation to confirm the system was working.



Long-Term Monitoring and Maintenance

After you install a radon mitigation system, you should test the house again to make sure the levels have dropped below 4 pCi/L. The EPA recommends retesting every two years, or after any major renovation that affects the foundation. I keep a continuous radon monitor in the basement just to stay on top of it. It gives me peace of mind, especially during the heating season when the house is closed up.

Another reason to monitor is that radon levels can change over time. If the soil settles around the house, if you add a new addition, or if the radon fan starts to fail, the levels can creep back up. A certified mitigator can inspect the system annually and make sure the fan is running smoothly and the vent pipe is clear of debris.

When I tell neighbors about my experience, a few of them have asked whether radon reduction in York is really necessary. They point out that nobody tested for radon fifty years ago, and people seemed fine. But the science has changed. We now know that radon exposure is the second leading cause of lung cancer after smoking, and it is the leading cause among non-smokers. The EPA and the Pennsylvania Department of Environmental Protection both recommend testing every home. For me, the cost and effort of mitigation were small compared to the health risk.

Final Thoughts on Radon Reduction in York

Radon reduction in York does not have to be overwhelming. Start with a test, get a professional opinion, and then take action if needed. Whether you live in a modern townhouse or a historic stone home, there is a solution that can bring your indoor air quality back to a safe level. The key is to treat it as a normal part of home maintenance, just like checking your smoke detectors or servicing your furnace. With the right information and a qualified contractor, you can protect your family without breaking the bank.