

Why Sub-Slab Depressurization York Homeowners Trust for Radon Mitigation

Understanding Radon in York County

If you live in York County, Pennsylvania, you have probably heard about radon. It is a naturally occurring radioactive gas that comes from the decay of uranium in the soil. Radon gas can seep into homes through cracks in the foundation, gaps around pipes, and other openings. Over time, exposure to elevated radon levels increases the risk of lung cancer. That is why the EPA recommends testing every home for radon and taking action if levels are at or above 4 pCi/L.

I have worked on radon mitigation in this area for years, and I can tell you that York County has some of the most variable geology in the state. Some neighborhoods sit on granite-rich soils that produce high radon readings; others are built on limestone or shale that can also release radon. The only way to know your home's radon level is to perform radon testing. A short-term test gives a rough idea, but a long-term test over 90 days is more reliable for deciding whether you need radon abatement.



When a test shows high radon levels, the most common and effective fix is a sub-slab depressurization system. In York, [sub-slab depressurization York](#) homeowners rely on works by creating a vacuum under the concrete slab of your basement. That vacuum pulls soil gas from beneath the house and vents it safely above the roofline. This method is also called active soil depressurization, and it is the EPA-recommended approach for most homes with a concrete slab foundation.

How a Sub-Slab System Works

A typical sub-slab system starts with a sump pit. A contractor drills a small hole through the basement floor and excavates a shallow pit in the soil below. That pit becomes the collection point for radon and other soil gases. A vent pipe is inserted into the pit and runs up through the house, usually inside a closet or along an exterior wall. At the top of that vent pipe, a radon fan is installed. The fan runs continuously, creating negative pressure under the slab. That negative pressure pulls radon-laden air from the soil and sends it up and out of the house.

One of the most important steps after installation is sealing cracks and openings in the basement floor and walls. Even a small gap can allow soil gas to bypass the system and enter

the home. Sealing cracks improves the efficiency of the sub-slab depressurization system and can lower radon levels even further. I always tell homeowners that sealing is not a standalone solution, but it is a critical complement to the sub-slab system.



A manometer is installed on the vent pipe to show that the system is working. This simple gauge has a colored liquid that moves when the fan creates the correct vacuum. Checking the manometer every few months is easy and gives you peace of mind that your radon mitigation is active. If the liquid drops to zero, it might mean the fan has failed or the system has a leak.

Fan Replacement and Maintenance

Radon fans are designed to run 24/7 for years, but they do not last forever. Over time, bearings wear out, motors fail, or the fan blades can become unbalanced. When that happens, you need fan replacement. I have seen many cases where a homeowner ignores a failed fan for months, thinking the system still works. Meanwhile, radon levels can climb back to dangerous levels. That is why follow-up testing after installation is so important. A radon test conducted a month after the system is installed confirms that the fan is working and radon levels have dropped below the EPA action level. Then you should test again every two years, or whenever you have major renovations or a change in the home's structure.

In York, the climate can be humid, and condensation inside the vent pipe can sometimes cause fan issues. A good installer will choose a fan rated for the specific airflow and pipe length needed for your home. A fan that is too small will not pull enough vacuum; a fan that is too large can cause noise and wear out faster. Professional radon mitigation contractors in York County understand these trade-offs and size the system correctly.

Why Sub-Slab Depressurization York Homeowners Prefer This Method

There are other ways to reduce radon, such as sealing cracks alone, increasing ventilation in the basement, or using a heat recovery ventilator. But for most homes with a basement and a concrete slab, sub-slab depressurization York residents trust is the most reliable and cost-effective option. It does not require major changes to your home's structure. It works quietly in the background, and the only ongoing cost is a small amount of electricity for the fan. Over the life of the system, that is a small price for peace of mind.



I remember a job in a neighborhood near the Codorus Creek. The home had radon levels around 8 pCi/L. After installing a sub-slab system and sealing a few large cracks in the basement floor, the follow-up testing showed levels below 1 pCi/L. The homeowner was relieved, and I was glad to see another family protected from radon exposure. That kind of result is typical when the system is designed and installed correctly.

Choosing a Radon Mitigation Professional in York County

Not every contractor who offers radon mitigation has the right training or experience. Look for someone who is certified by a national program, such as the National Radon Proficiency Program or the National Radon Safety Board. They should also have liability insurance and a

track record of working in York County homes. A reputable company will do a full inspection of your home, including the basement, the type of foundation, and the layout of the house. They will explain the options available and give you a clear estimate before starting any work.

Some common mistakes I have seen include installing a vent pipe that is too small, placing the fan indoors instead of outside, or failing to seal the sump pit properly. These errors can lead to poor performance or even backdrafting, where the radon fan pulls air from inside the house instead of from under the slab. A good contractor will avoid these pitfalls by following the industry standard protocols.

Radon Testing and Follow-Up

Radon testing is not a one-time event. The EPA recommends testing every two years, especially after any major work on your home's foundation or HVAC system. If you install a radon mitigation system, follow-up testing is essential to verify that it works. Many homeowners in York skip this step, only to discover months later that their radon levels have crept back up. A simple test kit, which you can buy at a hardware store or order online, can give you a reliable reading. Some contractors offer testing as part of their service, which can be convenient.



I always advise my clients to keep a record of their radon test results and any work done on the system. That way, if you sell your home, you can show the buyer that the radon problem was addressed properly. It also helps you track the system's performance over time.

Final Thoughts on Radon Mitigation in York

Radon is a serious health risk, but it is one you can manage. With proper testing, a well-designed sub-slab depressurization system, regular maintenance, and follow-up testing, you can keep your home safe. In York County, where radon is a known issue, taking action is not just smart, it is responsible. If you have not tested your home recently, I encourage you to do so. If your test shows high radon levels, reach out to a qualified radon mitigation professional. The peace of mind you gain is worth the effort. Sub-slab depressurization York homeowners have relied on for years continues to be the gold standard for radon reduction, and with the right care, it will serve you well for decades.