

Everything You Need to Know About Home Radon Testing in Pennsylvania

If you live in York County, Pennsylvania, you have probably heard about radon. It is a naturally occurring radioactive gas that comes from the breakdown of uranium in soil and rock. It can seep into any building, and it is the second leading cause of lung cancer in the United States. The only way to know if your home has a problem is through proper home radon testing. I have spent years working with homeowners in this region, and I can tell you that testing is straightforward, but there are important details that many people miss.

Radon gas is odorless, colorless, and tasteless. You cannot see it or smell it. That is why relying on your senses does not work. The EPA recommends that every home be tested for radon, especially those below the third floor. In Pennsylvania, roughly 40 percent of homes have radon levels above the EPA's Action Level of 4 picocuries per liter (pCi/L). York County sits in a zone with elevated radon potential, so home radon testing here is not just a good idea. It is a necessary step for protecting your family's health.



THE PIPE'S PROBABLY GOT A SAG

How Home Radon Testing Works

When you decide to test your home, you have a few options. The most common approach for an initial screening is a short-term radon test. These tests remain in your home for two to seven days. They give you a quick snapshot of radon levels, which can help you decide if you need a longer test or professional radon testing. Short-term tests are inexpensive and widely available at hardware stores or through your county health department.

A short-term radon test usually uses a charcoal canister. You open the canister, place it in the lowest livable area of your home, such as a basement or a room on the first floor, and leave it there for the specified period. After that, you seal the canister and mail it to a lab for analysis. The lab returns a result within a few days. Charcoal canisters are reliable for screening, but they can be affected by humidity and air currents. Follow the instructions carefully to get an accurate reading.

For a more complete picture, you should follow up with a long-term radon test. These tests last for 90 days to one year. Because radon levels can fluctuate day to day and season to season, a long-term test gives a much better average. The EPA recommends long-term testing after an initial short-term test if the result is above the Action Level, but I advise homeowners to go straight to a long-term test if they plan to stay in the home. It costs a little more, but the data is far more useful for making decisions about radon mitigation.

Continuous Radon Monitors and Digital Detectors

Another option is a continuous radon monitor. This is an electronic device that plugs into a wall and measures radon levels continuously. It shows real-time readings and can store data over weeks or months. Continuous radon monitors are more expensive than charcoal canisters, but they give you immediate feedback. If you are curious about how radon changes when you open windows or run a fan, this device can reveal those patterns. Some models also track temperature and humidity, which helps you interpret the readings more accurately.



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I have used continuous monitors in my own home and in client homes. They are especially useful if you suspect intermittent radon spikes, such as during heavy rain or when the furnace runs. The device can log those events, which a short-term test might miss entirely. For anyone serious about understanding their indoor air quality, a continuous radon monitor is a worthwhile investment.

Professional Radon Testing vs. DIY Test Kits

Many homeowners ask me whether they should buy a test kit themselves or hire someone for professional radon testing. The answer depends on your situation. A DIY test kit from a store or online is fine for a screening. You can do it yourself without special training. The key is to place

the test kit in the right spot. Avoid bathrooms, kitchens, laundry rooms, and areas near windows or exterior doors. The kit should sit in a room that is regularly occupied, like a living room or a bedroom, and it must be at least 20 inches above the floor.

Professional radon testing offers a few advantages. A trained technician knows how to place the radon detector to avoid interference from drafts, humidity, or heat sources. They also use calibrated equipment that meets EPA standards. If you are buying or selling a home, a professional test is often required by the lender or the buyer's agent. In York County, many real estate transactions include a radon test as part of the inspection. A professional result carries more weight in negotiations.

Another factor is timing. If you need results quickly, a professional can run a short-term test and get the lab results expedited. DIY kits can take a week or more for the lab to process. For a family moving into a new home, that delay might not be acceptable. Professional radon testing also includes a written report that you can share with your realtor or contractor.

What to Do If Your Test Shows High Radon

If your [home radon testing](#) shows levels above the EPA's Action Level of 4 pCi/L, do not panic. Radon problems are fixable. The most common and effective solution is sub-slab depressurization, also called soil suction. This system involves drilling a small hole through the concrete floor of your basement or crawlspace, inserting a pipe, and attaching a fan that pulls radon gas from beneath the slab and vents it safely outside. The fan runs continuously, and the system is usually installed by a licensed radon mitigation contractor.

In homes with a crawlspace instead of a basement, the approach is similar but the pipe goes through a vapor barrier or directly into the soil. The fan creates negative pressure under the house, which prevents radon from seeping through cracks and gaps. Sealant is applied to cracks in the foundation and around utility entries to improve the system's efficiency. A well-designed mitigation system can reduce radon levels by 90 percent or more.



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I have seen many cases where homeowners try to fix radon by simply sealing cracks and painting walls. That approach rarely works because radon moves through the soil and can find other pathways. A dedicated fan and pipe system is the only method that consistently brings levels below the Action Level. If you are considering mitigation, work with a contractor who understands the local geology and home construction in York County. Every house is different, and a good installer will design a system that fits your specific situation.

Radon Testing After Mitigation

After a radon mitigation system is installed, you should test again to confirm that levels have dropped. Most contractors include a follow-up test as part of their service. The EPA

recommends testing every two years after mitigation, because soil conditions and your home's foundation can change over time. Radon levels can also increase if the fan fails or if the system gets blocked. A simple home radon testing kit every couple of years gives you peace of mind.

If you have made major renovations, such as finishing a basement or adding an addition, test again. Construction can create new pathways for radon gas. Also, if you have changed your heating system or sealed windows more tightly, the air pressure in your home may shift, which can affect radon entry. Testing is cheap compared to the cost of ignoring the problem.

Common Mistakes in Home Radon Testing

Over the years, I have seen people make the same errors repeatedly. One common mistake is testing during a period of extreme weather. If you test during a heatwave with all windows closed, you might get a falsely high reading. If you test during a rainy week with windows open, you might get a falsely low reading. The best time for a short-term test is during moderate weather when you are living normally in the house. Close windows and doors 12 hours before starting the test, and keep them closed as much as possible during the test period.

Another mistake is placing the test kit in the wrong room. The kit needs to go in the lowest livable area. If you have a finished basement that you use as a family room, put the test there. If your basement is unfinished and rarely used, test on the first floor instead. The goal is to measure the air you actually breathe. Also, keep the kit away from drafts, direct sunlight, and humidity sources like showers or plants.

Finally, do not move the test kit once you start the test. If you pick it up and set it down somewhere else, you invalidate the results. Set the timer, leave it alone, and send it to the lab exactly when the instructions say to. This sounds simple, but I have seen people accidentally bump the kit or forget to mail it in time. Follow the directions to the letter.



Where to Get Test Kits and Help

You can buy a radon test kit online, at a local hardware store, or through your county health department. Some county health departments in Pennsylvania offer free or discounted kits. The Pennsylvania Department of Environmental Protection also provides information about certified testers and mitigation contractors. If you prefer professional radon testing, look for a contractor listed with the National Radon Proficiency Program or the Pennsylvania Radon Certification program.

In York County, many homeowners choose to work with a local expert who knows the area's soil types and construction styles. A contractor who has installed dozens of systems in your neighborhood will understand the typical pathways radon takes. They can also advise on the best type of radon detector for your home's layout. Whether you go DIY or professional, the important thing is to test. Radon is a serious health risk, but it is one you can manage with the right information and a little effort.

Home radon testing is not complicated, but it does require attention to detail. The process starts with a simple test kit or a call to a professional. From there, you get a number that tells you whether your family is safe. If the number is high, you have a clear path forward with radon mitigation. If the number is low, you can breathe easier knowing your home is healthy. Either way, testing is the first step, and it is a step every homeowner in Pennsylvania should take.