

Understanding Radon in Old Rowhouses: What Homeowners in York County Need to Know

When I first moved into my rowhouse in York, I loved the character: exposed brick, narrow staircases, and a basement that had clearly seen a century of use. What I did not love was the worry that came with reading the EPA radon zone map and realizing my home sat in a Zone 1 area, the highest risk category. For anyone living in an older attached home, the question of radon in old rowhouses is not just academic. It is a real health concern that demands practical answers.

Rowhouses present a unique challenge for radon mitigation. Unlike detached homes with crawlspaces or open basements, rowhouses share walls with neighbors and often sit on narrow lots with complex foundations. The geology under York County, dominated by granite bedrock, provides a steady source of radon gas. When that gas finds a pathway through a cracked basement slab or a gap around a sump pump, it can accumulate indoors. The result is elevated indoor radon levels that many homeowners do not suspect until they test.

Why Rowhouses Are Especially Vulnerable

The building envelope of a rowhouse is typically more interconnected than that of a standalone home. Shared walls mean that air pressure differences between units can pull soil gas from one basement into another. A French drain that was installed decades ago to manage water might now serve as a highway for radon. And because many rowhouses were built before modern vapor barriers and crack sealing techniques were common, the basement slab often has multiple entry points.

I have seen homes where the only apparent opening was a small gap around a floor drain, yet testing showed radon levels above 8 pCi/L, well above the EPA action level of 4 pCi/L. That is why understanding [radon in old rowhouses](#) requires a careful look at the entire foundation system, not just the visible cracks.

Testing Is the First Step

You cannot fix what you have not measured. Radon test kits are inexpensive and widely available. The most common types are charcoal canisters and alpha track detectors. A charcoal canister gives a short-term result over two to seven days, useful for a quick screening. An alpha track detector is left in place for three months or longer and gives a more accurate picture of average exposure. Many homeowners start with a short-term test and follow up with a long-term test if the first result is high.



For those who want continuous data, a continuous radon monitor provides real-time readings. I have used one in my own basement and found it helpful for seeing how levels change with weather, HVAC system operation, and the opening and closing of windows. The Pennsylvania DEP recommends testing every two years, but if you make structural changes or finish a basement, you should test again.

Common Mitigation Strategies for Rowhouses

Once testing confirms a problem, the next step is mitigation. The goal is to keep radon from entering the living space. Because rowhouses have limited exterior access, some methods work better than others.

Sub-Slab Depressurization

This is the most reliable technique for homes with a basement slab. A radon mitigation contractor drills a small hole through the slab, creates a suction point under the concrete, and installs a fan-powered vent that draws soil gas out and exhausts it above the roofline. In a rowhouse, the exhaust pipe is usually routed up an interior wall or an existing chase, since the exterior wall may be shared with a neighbor. The fan runs continuously and can be surprisingly quiet. I have seen this method reduce radon levels from 12 pCi/L down to below 1 pCi/L in a single afternoon.

Passive Stack Venting

In some older rowhouses, a passive stack system can be installed without a fan. This relies on natural air pressure differences to pull radon from under the slab and vent it outside. It is less expensive to install but less reliable than active soil suction, especially during calm weather. Many homeowners start with a passive stack and add a fan later if needed.

Sealing Entry Points

Crack sealing is an important complement to any active system. Sealing gaps around pipes, the sump pump, and the French drain opening helps reduce the amount of soil gas that can enter. But sealing alone is rarely enough. Radon can push through microscopic gaps in concrete, so sealing should always be paired with a depressurization method.

Working with the Building's Age and Layout

Old rowhouses were not designed with radon in mind. The basement slab may be thin, unreinforced, and cracked from decades of settling. The sump pump and French drain were installed to handle water, not gas. And the HVAC system, often a forced-air furnace in the basement, can create negative pressure that pulls radon indoors. A good mitigation plan works with these realities rather than against them.

I once consulted on a 1920s rowhouse where the homeowner had sealed every visible crack and still saw high radon readings. The problem turned out to be the French drain: it ran under the slab and connected to a dry well in the backyard, providing a direct route for soil gas. Installing a sub-slab depressurization system with a dedicated fan-powered vent solved the issue completely.

Choosing a Radon Mitigation Contractor

Not every general contractor understands radon mitigation. A qualified radon mitigation contractor will have experience with rowhouses and will use a continuous radon monitor to confirm the system works after installation. They should also be familiar with local building codes and the recommendations of the Pennsylvania DEP. Ask for references from other rowhouse owners in York County. A good contractor will also explain the trade-offs between different systems, such as the higher upfront cost of soil suction versus the lower maintenance of a passive stack.



Ongoing Monitoring and Maintenance

After mitigation, test again to confirm levels have dropped. Then test every two years or after any major renovation. Radon levels can change as the ground shifts, as new construction occurs nearby, or as your HVAC system ages. Using a continuous radon monitor gives you peace of mind between formal tests.

Indoor air quality overall benefits from these efforts. Reducing radon usually means tightening the building envelope, which can also reduce drafts and energy loss. Just be sure that the mitigation system does not interfere with combustion appliances. A qualified contractor will check for backdrafting from furnaces and water heaters.

Final Thoughts

Living in an old rowhouse is a joy. The history, the craftsmanship, the sense of community. But radon in old rowhouses is a serious issue that no homeowner should ignore. The good news is that effective solutions exist, and they are not as disruptive as you might fear. Start with a

simple test, understand the unique pathways in your home, and work with someone who knows how to address them. Your lungs will thank you.