Understanding Radon in Row Homes: Risks and Mitigation in Pennsylvania

Living in a row home has its charm. The close-knit neighborhoods, the shared walls, the sense of history. But that shared structure also means that when one home has a problem, the neighbors often do too. That is especially true for radon, a radioactive gas that moves easily through soil and can seep into any home. In row homes, the problem is rarely isolated. Understanding how radon behaves in these attached houses is the first step toward keeping your family safe.

Radon comes from the natural decay of uranium in the ground. It moves up through soil and enters buildings through cracks in foundations, gaps around pipes, and even through the pores in concrete. In a detached house, the radon level is mostly determined by the soil directly under that building. But in a row home, the situation is more complex. The shared foundation and the continuous slab or basement floor mean that radon can travel from one unit to the next. If your neighbor has high radon levels, yours might be high too, even if your side of the house seems fine.

Why Row Homes Are Different

The main difference is the lack of an independent barrier between units. In a typical row home, the walls between houses are often solid masonry, but the floor slab is continuous. Radon entering through a crack in one unit can migrate laterally under the slab and find its way into the adjacent home. I have seen cases where a homeowner tested low radon for years, only to have levels spike after a neighbor sealed a basement floor. The gas simply found a new path.

Another factor is the shared crawlspace or basement air. Many row homes have interconnected basements through utility tunnels or simply through gaps in the party walls. Even if those gaps are small, they allow air movement. Radon in one basement can diffuse into the next. That is why testing every unit in a row is important, even if you assume your side is safe. The phrase **radon in row homes** really means radon in the whole row, not just one address.

View the location on Google Maps

Testing: The Only Way to Know

Testing for radon is straightforward and inexpensive. Short-term tests take two to seven days and give a quick snapshot. Long-term tests, which last 90 days to a year, provide a more accurate average. For row homes, I recommend starting with a short-term test in the lowest

livable level of each unit. If you own the whole row, test every unit. If you only own one, test it and then share the results with your neighbors. You might find that your levels are fine while the house next door is well above the EPA action level of 4 picocuries per liter.



radon in row homes

One thing I have learned over the years is that radon levels can vary wildly within a single row. I once tested a block of six row homes in York. The end units were moderate, the middle units were high, and one unit in the middle was actually low. The difference came from a filled-in coal chute under that particular house that was venting the gas outside before it could enter. Without testing, no one would have guessed.

Mitigation Strategies for Attached Homes

Mitigating radon in row homes requires a different approach than a standalone house. You cannot just install a sub-slab depressurization system in one unit and expect it to work perfectly, because the system might pull radon from the neighboring units under the slab. The best approach is to treat the entire row as a single structure. That means coordinating with your neighbors, or at least understanding that your mitigation might affect theirs.

Common methods include:

- Sealing cracks and openings in the foundation and slab, paying special attention to the joints between units.
- Installing a sub-slab depressurization system with a fan that draws radon from beneath the slab and exhausts it above the roof. In a row home, the system should be designed to handle the entire contiguous slab area.
- Increasing ventilation in the basement or crawlspace to dilute radon levels.
- Sealing the party walls between units to prevent air movement, though this is rarely fully effective.

The key is to work with a professional who understands attached housing. A contractor who only works on detached homes might miss the lateral migration paths. I have seen mitigation systems that actually made the problem worse because they created a vacuum that pulled radon from the next house over. That is why the phrase **radon in row homes** deserves special attention.

Cost and Practical Considerations

Mitigation costs for a row home are similar to a detached home, usually between $800 and $2,500 depending on the system. But if you need to coordinate with neighbors, the cost can go up. Some homeowners split the cost of a shared system, which can be more efficient than individual units. In Pennsylvania, there are no state funds specifically for radon mitigation, but some local programs offer low-interest loans. Check with your county health department.



radon in row homes

Connect with us on Facebook.

One practical tip: if you are buying a row home, make radon testing a condition of the sale. Ask the seller for test results from the unit and, if possible, from the adjacent units. Many buyers assume radon is not a problem because the house is on a slab, but that is exactly when it can be worst. The slab provides a direct pathway.

Seasonal and Weather Effects

Radon levels fluctuate with the seasons. In winter, homes are sealed tight, and the stack effect pulls more radon from the ground. In summer, open windows can lower levels. But in row homes, the shared structure can mute these seasonal swings. I have seen row homes where the winter levels were only slightly higher than summer, probably because the adjacent units provided some thermal buffer. Still, test in both seasons to get a full picture.

Weather also matters. Heavy rain can saturate the soil and push radon into homes. Barometric pressure drops can increase the suction from the ground. If your row home has a history of high radon, consider a continuous monitor. These devices cost a few hundred dollars but give real-time data. They are especially useful if you have a mitigation system, because they can alert you if the fan fails or if levels spike unexpectedly.

Health Risks and What to Do Next

Radon is the second leading cause of lung cancer in the United States, after smoking. It is responsible for about 21,000 deaths per year. The risk is higher for smokers, but even non-smokers face a significant risk at high levels. The EPA recommends fixing your home if the radon level is 4 pCi/L or higher. For levels between 2 and 4 pCi/L, consider mitigation, especially if you have children or spend a lot of time in the basement.

If you test and find high levels, do not panic. Mitigation is effective and usually straightforward. The first step is to confirm the test result with a long-term test. Then contact a certified radon mitigation contractor. They will assess your home and design a system. In row homes, they might recommend a system that includes a fan and a network of pipes under the slab. The fan

runs continuously and is the only moving part. Maintenance is minimal, mostly checking the fan every year and replacing it every five to ten years.



radon in row homes

I have helped homeowners in York and Adams County deal with **radon in row homes** for years. The biggest mistake is ignoring the problem because you think it is only your neighbor's issue. Radon does not respect property lines. It moves through soil and air freely. If you test and find levels above 4 pCi/L, take action. If your neighbor tests high, ask them to fix it, because their problem can become yours.

For more information on radon testing and mitigation in south-central Pennsylvania, you can reach out to York PA Radon Pros, located at 867 Clare Ln, York, PA 17402, USA, call them at +1 717-807-5245. They are a local resource for radon testing, mitigation, and fan replacement in York and Adams County, Pennsylvania, offering trusted contractor recommendations and DEP-backed data.