

Why Radon Mitigation Illinois Homeowners Shouldn't Delay

Understanding the Risk in Metro East Homes

When I first started testing homes in the Metro East area, I met a family in Belleville who had lived in their basement for years. They had finished it into a nice rec room, and the kids spent hours down there playing video games. A short-term radon test came back at 14 pCi/L, nearly four times the EPA action level. That was the moment they realized radon was not just a problem for other people. It can happen in any home, and the only way to know for sure is to test.

Radon is a radioactive gas that comes from the natural breakdown of uranium in soil. It moves up through the ground and into your home through cracks in the foundation, gaps around pipes, and even through the concrete itself. In Illinois, especially in counties with certain soil types, the risk is real. The Illinois Department of Public Health keeps maps showing zones with predicted indoor radon levels, and much of the Metro East falls into Zone 1, meaning average levels above 4 pCi/L. That is the EPA action level, the point where they recommend you install a radon mitigation system.

But here is what surprises most people: even homes in lower-risk zones can have high levels. Soil is not uniform. One house can be fine while the neighbor's house needs serious work. That is why every homeowner in Edwardsville, O'Fallon IL, Collinsville, and the surrounding communities should test. There is no substitute for a real measurement.

Testing Comes First, But It Is Not Complicated

There are two main ways to test for radon. A short-term radon test usually sits in your home for two to seven days. It gives you a quick snapshot. If the result is high, you can move forward with mitigation. A long-term radon test stays in place for at least three months, often up to a year. It gives you a more accurate average because radon levels can fluctuate with weather, seasons, and how you run your HVAC system.

I have seen people use both. For a first screening, a short-term test is fine. If you are buying or selling a home, the transaction timeline often demands a quick answer. But if you want to know your true annual exposure, a long-term test is better. Some homeowners also use a continuous radon monitor, which gives hourly readings and shows spikes. That can be helpful if you suspect the radon level changes a lot, for example during heavy rain or when the furnace runs.

One thing to watch out for: test placement matters. You cannot just set the device on a shelf in the living room. It needs to be in the lowest livable level of the home, away from drafts, heat, and humidity. Follow the instructions that come with the test, or hire a professional who does this every day. The result is only as good as the test setup.

What Radon Mitigation Actually Involves

If your test comes back high, do not panic. The fix is proven and effective. The most common method is sub-slab depressurization, sometimes called soil suction. A contractor drills a hole through the basement floor, digs out a small pit below the slab, and installs a pipe that runs up through the house and out the roof. A radon fan is mounted on that pipe, usually in the attic or outside, and it creates a vacuum that pulls radon from under the house and vents it safely above the roofline.

That fan runs continuously. You can tell it is working by checking the manometer, a simple U-tube gauge that shows pressure difference. If the manometer reads a steady vacuum, the system is doing its job. If the reading drops to zero, something is wrong, a power outage, a broken fan, or a blocked pipe.

But sub-slab depressurization is not the only step. A good installer will also seal sump pits, which are often open to the soil and can become major radon entry points. They will also seal cracks and joints in the foundation. Some homes need a combination of approaches. For instance, if the house has a crawl space instead of a full basement, the contractor might run the suction pipe through the crawl space floor. Every house is a little different, and that is why a one-size-fits-all solution does not work.

For new construction, radon-resistant construction techniques are available and cost very little. A layer of gravel under the slab, a vapor barrier, a sealed sump pit, and a passive pipe stub that can be activated later with a fan if needed. The International Residential Code has required these features in high-risk zones for years. If you are building a home in O'Fallon IL or Edwardsville, ask your builder about it. It is cheap insurance.

Radon Mitigation Illinois: What Local Homeowners Need to Know

When it comes to [radon mitigation Illinois](#) residents have a lot of options, but not all contractors are equally qualified. The Illinois Department of Public Health does not license radon mitigators, but the EPA recommends hiring someone who is certified by the National Radon Proficiency Program or the National Radon Safety Board. Look for that certification when you choose a company.

In the Metro East area, Air Sense Environmental has been doing this work for years. They know the local soil conditions, the common construction types, and the typical problem areas in

Belleville, Edwardsville, O'Fallon IL, and Collinsville. They understand that a mitigation system is not just a piece of hardware; it is a long-term solution that has to work quietly and reliably for decades. A poorly installed system can be noisy, inefficient, or even fail to lower radon levels enough.

One thing I have learned: the cost of radon mitigation is usually between \$800 and \$1,500 for a typical house. That is not cheap, but compared to the health risk, it is a bargain. Radon is the second leading cause of lung cancer in the United States, after smoking. The EPA estimates that radon causes about 21,000 lung cancer deaths per year. For nonsmokers, it is the number one cause. That is a real, preventable risk.

And yet, many homeowners in Illinois still do not test. A 2018 survey by the Illinois Department of Public Health found that fewer than one in five homes in high-risk counties had ever been tested. That is a huge gap. The test itself costs as little as \$10 to \$20 for a short-term kit, or you can hire a professional to do it for a bit more. Either way, it is the first step.

What Happens After Mitigation

Once the system is installed, you should test again to make sure it worked. The EPA recommends a post-mitigation test, usually a short-term test, to confirm radon levels have dropped below 4 pCi/L. Most systems can get levels down to near background, often under 2 pCi/L. That is a huge reduction.

You also need to maintain the system. The radon fan will eventually wear out. Most fans last five to ten years, but some last longer. Check the manometer once a month. If the reading changes, call a pro. Also, do not block the vent pipe or the exhaust outlet. I once saw a homeowner store boxes in front of the pipe, blocking airflow. The system still ran, but the radon levels crept back up. Simple stuff.

Some people ask about activated carbon filters or air purifiers. They are not a substitute for mitigation. Activated carbon can absorb radon temporarily, but it quickly saturates and becomes a source of radiation itself. The only real solution is to stop the radon from entering the home in the first place. That means sub-slab depressurization or a similar system.

Trust the Process, Not the Myths

There are a lot of myths about radon. Some people think it is only a problem in old houses with dirt floors. Not true. New houses can have high radon levels too. The concrete slab does not stop the gas; it only slows it down. Others think radon testing is too complicated or unreliable. It is not. The technology is simple and well proven. The EPA and the Illinois Department of Public Health both provide clear health department guidelines for testing and mitigation.

If you live in the Metro East and you have not tested your home, consider doing it soon. The risk is real, the fix is straightforward, and the peace of mind is worth it. Whether you do a short-term radon test yourself or hire someone like Air Sense Environmental to do a thorough evaluation, you are taking a step that could protect your family for years to come. Radon mitigation Illinois homeowners have access to good professionals and clear standards. There is no reason to delay.

I have seen too many families wait until they are selling a house to think about radon. By then, the problem has been there for years. If you test now and find high levels, you can fix it and live in a safer home. That is a win you can feel good about.