

Radon In Our Area

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It seems we hear less and less about the hazards of radon gas in our homes. Homeowners might only know about the need for a radon test when they purchase a home but not clear about why, or understand the details about the health hazards. They might also not be aware that the NJ Department of Environmental Protection (DEP) suggests that all homes be tested for radon.

Radon is a clear odorless gas which generates from within the earth's rock and soil during the breakdown process of Uranium below the surface. It's been well proven that breathing concentrated levels of radon gas leads to lung cancer, and in fact is the second leading cause of lung cancer behind cigarette smoking. According to the United States Environmental Protection Agency (EPA), "Radon is the number one cause of lung cancer among non-smokers" and "Radon is responsible for about 21,000 lung cancer deaths every year". Though Radon gas is naturally present in outside air, when it becomes concentrated within a home it can cause ongoing irritation to the lungs which can lead to lung cancer.

A reason Radon within homes has been a growing problem is because homes are being built to more efficient standards, and many home owners are upgrading home insulation which often results in a tighter air seal around the home resulting in less indoor to outdoor air exchange. Think of your home as a chimney where radon gas rises from the earth below and distributes into living space until it either naturally breaks down via a chemical half-life process or is released through natural air leaks in the home. Radon is an element which has a very short life so concentration normally divides in half as it moves to the next higher floor in a modern home. This is why a radon test is normally performed in multiple locations in the lowest level of a home.

It's here in Bergen County

The US EPA has long known about radon hazards and along with state agencies have established guidelines and regulations regarding when a home must be tested for radon. Here is a link to some great radon information from the EPA at <https://www.epa.gov/radon>. In New Jersey a used home must be tested during its sale, yet surprising to find that new homes or when a home is expanded radon testing is not required. This is because it's believed that residential building code now requires certain types of foundation seals which sufficiently negate the influx of radon. I find it surprising that so few people know about the hazard of radon, even in areas where radon concentration is known to be moderate to high, such as northern Bergen County. The DEP has been trying to bring public awareness to the hazards of radon and has programs in place to educate and provide testing free of charge at <http://www.njradon.org/>

I have personally found that Radon levels can increase significantly after home improvements such as an addition onto a home requiring foundation work. After having construction on my home in Montvale, I found that the level of radon rose well above the DEP suggested limit of 4.0pCi/L which I later reduced to a low level with some fairly simple modifications.

Radon emission into a home varies dramatically from location to location and from season to season by many orders of magnitude. I know first-hand radon levels can be 3 times higher or lower from

season to season, especially during the winter months when homes are tightly sealed up.

The NJ Dept. of Environmental Protection (DEP) publishes a potential hazard map showing which areas have been found to contain the highest concentration of radon. Here in Bergen County many municipalities fall into the moderate potential for radon levels in a home being over the suggested limit. Here is a [LINK](#) to the DEP map showing potential risks throughout NJ.

Radon testing can be done with a DIY tester found at any hardware store, but be sure to follow directions carefully. If you do find high levels of radon in your home it's usually not a major ordeal to fix. There are many knowledgeable certified radon contractors who can address any sort of radon issue. The DEP provides a list of certified contractors in NJ.

To find more information see the following links

<https://www.epa.gov/radon>

<https://nj.gov/dep/rpp/radon/>

Or Call the NJ DEP Radon Hotline at (800)648-0394

About the Author

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