

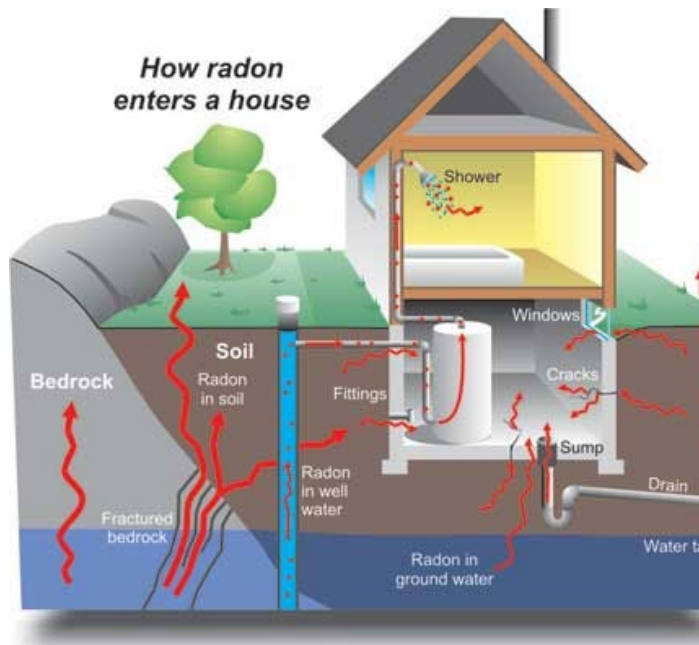
OFFICE OF CONSUMER PROTECTION

Radon: Science & the Law

August 19, 2020

Radon in the Time of COVID

At present, due to the COVID-19 virus, it is likely that all of us are spending more time indoors and within our homes. The act of spending more time indoors creates a greater possibility of being exposed to harmful amounts of radon gas if high levels are present in your home. Radon is a naturally occurring substance resulting from certain elements decaying in the soil. When radon enters a home through cracks in the foundation or through other openings, it can build up to unhealthy concentrations.



When humans are exposed to unhealthy levels of radon, it acts as a carcinogen, or a substance that can cause cancer in the body. In fact, exposure to radon gas is the 2nd leading cause of lung cancer in the United



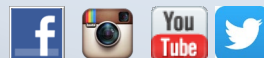
Ensuring Integrity in our Marketplace



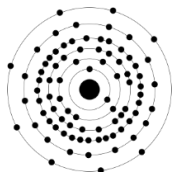
If you have been a victim of a scam, or if you have any questions about a merchant's activities, please contact the Office of Consumer Protection.

100 Maryland Avenue
Suite 3600
Rockville, MD 20850
Main: 240.777.3636
Tip Line: 240.777.3681
Fax: 240.777.3768
Consumer@MontgomeryCountyMD.gov

You can also file a complaint online by clicking [HERE](#)



States. Montgomery County has been [identified by the EPA](#) as being a county that ranks in their highest “Zone 1” category for potentially elevated indoor radon levels. However, there are a number of measures a homeowner can take to protect themselves from exposure to this possible risk.



Montgomery County Law

For more than two decades, Montgomery County has had laws in place to protect residents from exposure to unhealthy levels of indoor radon. First, in 1995, Montgomery County adopted the requirements of radon resistant building as described in International Residential Code’s (IRC) [Appendix F](#). This portion of the IRC outlines the requirements and guidelines for the installation of a passive radon mitigation system and other requirements of radon resistant building. Second, Montgomery County now requires that all single-family homes have a radon test performed before a sale takes place. See County Code [40-13C](#).



This law was enacted in 2016 and is administered by Montgomery County’s Department of Environmental Protection (DEP). In fact, Montgomery County is the only county in the Nation which has such a requirement, making our County a leader in

this specific field of consumer safety. OCP is tasked with enforcing this law. See County Code [40-14](#).

EPA Guidelines

The Environmental Protection Agency (EPA) established recommended “action levels” for detected amounts of radon gas. The EPA holds that there is no designated “safe” level of radon in a household.

The recommended “action level” that EPA has set is a measurement of 4.0 pCi/L (picocuries per liter). The EPA also [recommends](#) that Americans consider remediation efforts for radon levels between 2 pCi/L and 4 pCi/L. Interestingly, the average concentration of radon in outdoor air [is 0.4](#) or 1/10th of EPA’s 4.0 pCi/L action level. The EPA estimates that about 21,000 people die each year from radon related lung cancer.



Passive v. Active Systems

Radon resistant building requirements adopted by Montgomery County are protective, but in some circumstances, these measures still fail to adequately protect residents. There are two types of radon remediation systems that a home can use. One is a passive system, which is the construction of a pipe that extends through the home’s subfloor and into gravel below the home. This passive system effectively takes the radon, and like a chimney, moves the radon gas through the pipe, keeping it from intruding into the home. This is the system required by Montgomery County. The other

type of system is an active system, where a fan is installed into the pipe to create suction, thereby drawing more gas from beneath the subfloor and further minimizing its infiltration into the home. The [National Radon Program Service](#) (NRPS), a cooperative partnership between the EPA and Kansas St. University, recommends for areas with high radon levels that all systems be made active. One of the requirements of radon resistant building is to allow for a passive system to be easily and inexpensively converted to an active one. For example, in Montgomery County, it is required that an electrical outlet be placed near the pipe so that a fan can be easily installed. If a passive system is in place, it can be converted to an active system at a cost of around \$500.

Testing

Consumers can purchase a short-term test from NRPS (at a cost of about \$15) or a test can also be purchased from your local hardware store.



There are also reputable radon testing companies that can conduct accurate tests of the varying radon levels in the home. Consumers can visit the County's [Department of Environmental Protection](#) (DEP) website for further information on [testing](#) devices and to find certified radon mitigation contractors.

As DEP notes, testing your home is the only way to know if you and those in your household are at risk.

Conclusion

It's never the wrong time to consider the quality of the air in our homes. Luckily, there are steps that you can take to protect yourself and your family. To learn more, visit the [National Radon Program Service](#) website. DEP also has a brochure titled "[Quick Guide to Protecting Your Home](#)" which you can download.

