WHAT IS RADON?

The two main causes of lung cancer in North Carolina are smoking tobacco and breathing high levels of radon. The North Carolina Radon Program wants you to know about the importance of testing for radon in your home and how to get radon levels in your home reduced.

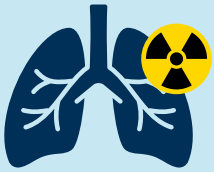
What is radon?

Radon is a type of gas that you can't see, smell, or taste. It forms when certain radioactive materials, like uranium, thorium, and radium, break down in soil, rocks and water.

Why should I be concerned about radon?

Radon is the number one cause of lung cancer among non-smokers, according to EPA estimates. Overall, radon is the second leading cause of lung cancer, behind smoking. Inhaling radon is estimated to cause over 21,000 lung cancer deaths annually in the United States. In 2020, lung cancer was the primary cause of cancer-related deaths in North Carolina.

How does radon cause lung cancer?



Radon gas breaks down into radioactive particles that attach to your lungs as you breathe. These particles release bursts of energy, which can harm lung tissue and cause lung cancer over time. While not everyone exposed to high radon levels develops lung cancer, the risk of lung cancer increases as the level gets higher.

Where is radon found in North Carolina?

1 IN 15 HOMES AFFECTED IN THE UNITED STATES

About 1 of every 15 homes in the US is probably affected by high levels of radon. In North Carolina, some homes in all 100 counties have been found to have high radon levels. The only way to find out if your home has a radon issue is by testing it. Maps and neighbor's radon levels cannot predict if your home has high radon levels. Every home and building is different.

What are your chances of getting lung cancer from radon?

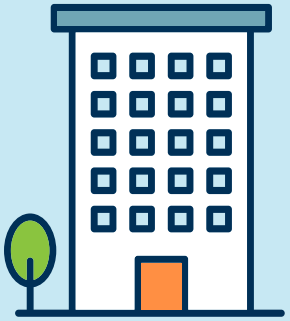
That depends on a few factors:

1. The level of radon in your home: Higher levels of radon increase your risk.
2. How much time you spend in your home: More time spent in a place with high radon levels raises your risk.
3. Whether you smoke or have smoked before: People who smoke and are exposed to radon have a 10 times greater risk of lung cancer.
4. If you're exposed to secondhand tobacco smoke: Being around secondhand smoke adds to your risk of lung cancer, especially if you're also exposed to radon.

How does radon get into a home?

Radon seeps up from rocks underground, through the soil, and into the air above. It enters your home through cracks and gaps in the foundation and becomes trapped inside. This can occur in both new and old homes, with or without basements, and even in high-rise buildings or apartment complexes. Radon can also enter homes through well water that comes from underground, bringing radon into the house.

Is radon **only** in homes?



Radon can increase in any type of building. However, since people typically spend most of their time at home, that's where they're most likely to be exposed to radon. But you may be exposed to radon in all types of buildings.

What is considered a high level of radon in the home?

Radon levels in the air are measured in "picocuries per liter of air," abbreviated as "pCi/L." A radon level between 2 and 3.9 pCi/L is seen as a moderate risk, while 4 pCi/L or more is considered a high risk for lung cancer.

I am buying/selling a home. **How** do I get a property tested for radon?

While North Carolina has no specific laws concerning radon testing, the NC Radon Program suggests hiring a certified radon contractor for reliable and prompt test results. If your water comes from a private well, you can also test your groundwater for radon using a certified laboratory. You can find a certified radon tester by visiting radon.ncdhhs.gov.

What if the radon levels are high in my home?

There are solutions available to fix the problem. The EPA recommends taking action if your home's average radon level is 4 pCi/L or higher. They also suggest considering fixing your home if it tests 2 to 3.9 pCi/L. Most homes can be easily fixed to reduce radon levels below 4 pCi/L. However, lowering high radon levels requires specific knowledge and skills. It's essential to hire a contractor who is trained to address radon issues. Look for contractors certified by organizations like the National Radon Proficiency Program or the National Radon Safety Board.

How do I fix my home if the test shows there is a high level of radon in water?

The NC Radon Program advises testing well water for radon. Experts recommend addressing well water that tests over 10,000 pCi/L for radon. If radon levels are high in the well water, it's recommended to conduct a second test for other radioactive particles such as uranium and radium. It's crucial to choose a contractor trained to handle radon issues. For further information, you can reach out to your county health department's environmental health program.

Will a radon reduction system impact the sale of my home?

Builders across North Carolina are increasingly incorporating radon mitigation systems into new homes. These systems are seen as an advantage during home sales because they help reduce radon levels in the home. However, it's crucial to always test for radon to ensure that the mitigation system is functioning correctly.

Who is most sensitive to radon gas?

Everyone is at risk for radon-induced lung cancer. Three groups of people are more sensitive. Children, whose lungs are still developing, may be two times more sensitive to radon than adults; people who have smoked more than one hundred cigarettes in their life are 10 times more sensitive to radon than non-smokers; and, people who are lung cancer survivors are more sensitive to radon gas.

Where can I get more information about radon?

Visit the North Carolina Radon Program website radon.ncdhhs.gov. If you are outside of North Carolina, see the National Radon Program website at sosradon.org.

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

NORTH CAROLINA Advisory Committee on Cancer Coordination and Control
Celebrating 30 Years

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