

RADON RISK IN NEW HAMPSHIRE

Radon is a cancer-causing, radioactive gas that you can't see, smell or taste. Testing is the only way to know if radon is present in your home.

An Overview for Residents

Radon is a tasteless, odorless, colorless, naturally occurring, radioactive gas. It comes from the breakdown of uranium in rocks and soil. It can seep into homes through cracks and seams in foundation floors and walls. Radon may also enter through well water and be released into the air during showering, dishwashing, and laundry. In the United States (US), the average level of indoor radon is 1.3 picocuries per liter (pCi/L), but samples collected in New Hampshire (NH) homes from 2007 to 2021 (n=32,747) suggest that 37% of homes have a concentration of 4.0 pCi/L or higher.

The U.S. Environmental Protection Agency (EPA) recommends homeowners test their home's radon levels every two years or after any living pattern changes or renovations. Homeowners should install a radon mitigation system when radon concentrations are 4.0 pCi/L or higher.

Health Risks Associated with Radon Exposure

Breathing air with elevated levels of radon can increase the risk of lung cancer. Nationally, radon is the second leading cause of lung cancer. A person's lung cancer risk due to radon depends on the level of radon in the air they breathe, how long they are exposed, and whether or not they are a smoker. If you smoke and your home has high levels of radon, your risk of getting lung cancer increases.

Testing for Radon

The primary route of exposure to radon is through inhalation. However, radon can also be present in water. When radon in air levels are at or above the action level and water comes from a well, testing

water for radon may help in determining the most effective way to reduce radon in air levels in the home. Sometimes water can contribute radon to the air in a home and needs to be treated.

The NH Department of Health and Human Services and NH Department of Environmental Services recommend that homeowners with private wells with radon concentrations at or above 10,000 pCi/L install treatment for the water in conjunction with mitigation of indoor air radon. For private wells with radon concentrations between 2,000 and 10,000 pCi/L, the treatment of water may be advisable if air concentrations in the home exceed 4 pCi/L.

It is important that New Hampshire residents test their homes for radon (in both air and private well water), and take corrective action when necessary.

QUICK FACTS:

- The primary route of radon exposure is inhalation.
- 37% of homes tested in New Hampshire report elevated radon concentrations.
- Among homes with elevated radon concentrations of 4 pCi/L or higher, the median concentration varied by county, ranging from 6.0-9.1 pCi/L. Values above 100 pCi/L have been reported in every county in New Hampshire.
- New Hampshire state law does not mandate radon testing for real estate transactions.

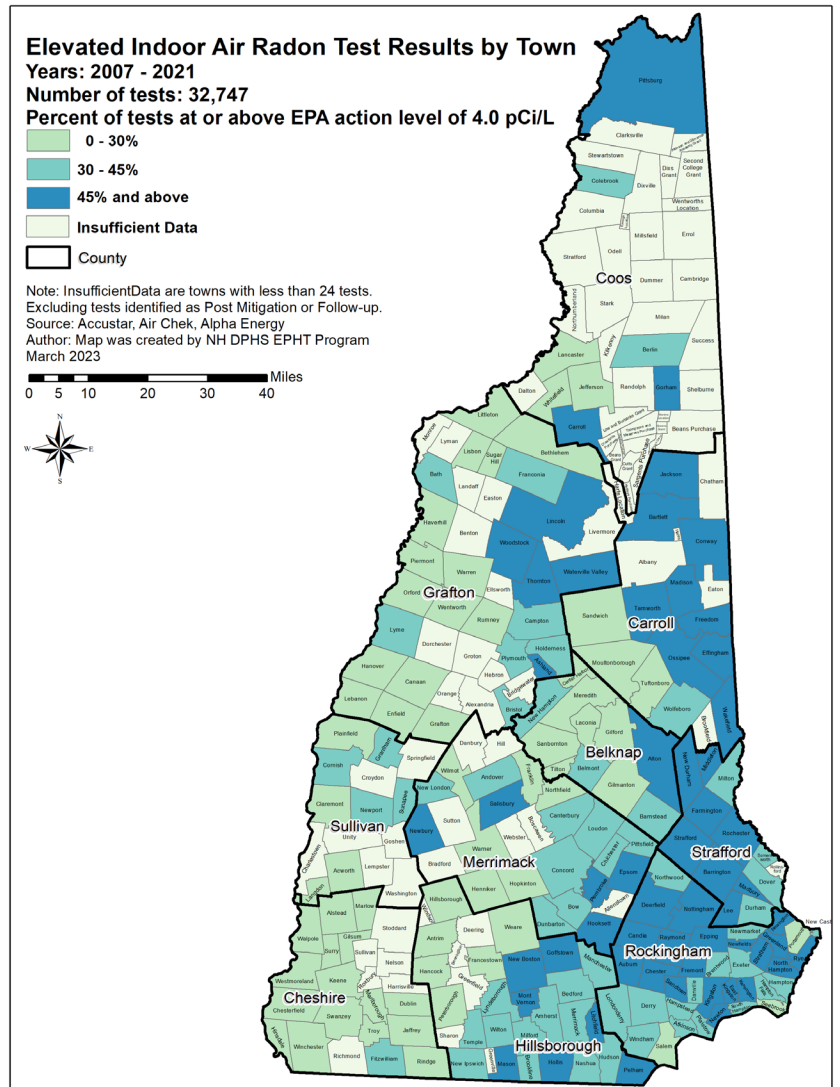
Summary Results

In New Hampshire, potential exposure to radon is greater than the national average due to our granite bedrock. In the U.S., the average level of indoor radon is 1.3 picocuries per liter (pCi/L) but here in NH, it is estimated to be 5.9 pCi/L.

The town map reveals areas where there are elevated radon levels in home air. Overall, approximately 37% of the homes tested throughout New Hampshire (n=32,747) exhibit radon concentrations above the EPA recommended level of 4.0 pCi/L.

Towns shaded dark blue indicate where radon exposure risk appears to be greatest, such as those towns located in the southeastern and eastern regions of the state. Carroll, Rockingham and Strafford Counties have the highest percentage of homes with elevated levels. In these counties, half of the homes tested in Carroll County had concentrations of 9.1 pCi/L or higher, half of the homes tested in Rockingham County had concentrations of 7.9 pCi/L or higher, while half of those tested in Strafford County had concentrations of 7.7 pCi/L or higher.

It is important to recognize that values above 100 pCi/L have been reported in every county in New Hampshire. Testing is the only way to know if you and your family are at risk from radon.



Reducing Radon Exposure

The EPA recommends testing for radon in air on the lowest level of living space. Action should be taken when radon in air is 4.0 pCi/L or higher. Radon levels in air can be reduced by installing a radon mitigation system. Costs for a radon mitigation system range from \$1,000 to \$3,000.

Radon can also occur in private well water. Radon in well water can be removed with a water aeration system, which ranges in cost from \$4,000 to \$6,000.

There is no known safe level of radon, but the health risks associated with radon can be reduced by lowering the radon level in your home.

There are several proven methods to reduce radon in your home air and water. Consult a [licensed radon mitigation professional](#) for more information.

Contact the New Hampshire Radon Program:

Call: (603) 271-1708

Email: radon@dhhs.nh.gov

Visit: bit.ly/RadonProgramNH

Request your **FREE Radon Test Kit!**
Visit: aelabs.com/nh

NOTE: The State of New Hampshire does not license or endorse radon mitigation professionals. Radon mitigation contractors are certified through their respective professional organizations.