



## Home buyer's and seller's guide to radon

This guide answers questions about radon and lung cancer risk, as well as questions about testing and fixing a radon problem for anyone buying or selling a home.

You cannot see, smell or taste radon. When you breathe air containing radon, you increase your risk of getting lung cancer. If you smoke and your home has high radon levels, your risk of getting lung cancer is especially high.

### I'm SELLING a home. What should I do?

#### IF YOUR HOME HAS ALREADY BEEN TESTED FOR RADON...

Ensure that the test was done correctly. If so, provide your test results to the buyer.

#### IF YOUR HOME HAS NOT YET BEEN TESTED FOR RADON...

Testing is the only way to know if you or your family are at risk from radon. You cannot predict radon levels based on state, local, and neighborhood radon measurements.

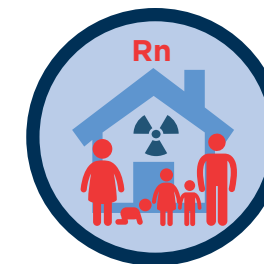
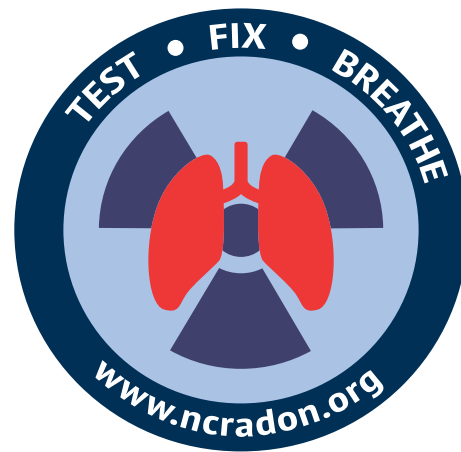
### I'm BUYING a home. What should I do?

#### IF THE HOME HAS ALREADY BEEN TESTED FOR RADON...

If you are thinking of buying a home, you may accept an earlier test result from the seller or conduct a test by a certified radon professional. If you decide that a new test is needed, discuss it with the seller as soon as possible.

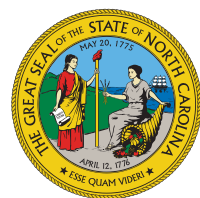
#### IF THE HOME HAS NOT YET BEEN TESTED FOR RADON...

Make sure that a radon test is conducted by a certified radon measurement professional as soon as possible.



# Real Estate Seller/Buyers Guide

REGARDING RADON IN THE HOME



NC DEPARTMENT OF  
**HEALTH AND HUMAN SERVICES**  
Division of Health Service Regulation  
Radiation Protection Section

[www.ncradon.org](http://www.ncradon.org)

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#### IN COLLABORATION WITH



NC DEPARTMENT OF  
**HEALTH AND HUMAN SERVICES**  
Division of Health Service Regulation

## Why should I buy a radon resistant home?

Radon-resistant techniques work. When installed properly and completely, these simple and inexpensive passive techniques can help to reduce radon levels.

- Every home should be tested for radon as soon as possible after occupancy even if built to be radon-resistant.
- Building radon-resistant features into the house during construction is easier and less expensive than fixing a radon problem after the home is constructed.
- When installed properly and completely, radon-resistant techniques can also make your home more energy efficient and help you save on your energy costs.

## What are radon resistant features?

Radon-resistant techniques may vary for different foundations and site requirements. If you're having a house built, ask your builder to use the latest version of ANSI/AARST standards for the following best practices:

- **Gas Permeable Layer** – This layer is placed beneath the slab or flooring system to allow the soil gas to move freely underneath the house.
- **Plastic Sheeting** – Plastic sheeting is placed on top of the gas-permeable layer and under the slab to help prevent the soil gas from entering the home.
- **Sealing and Caulking** – All below-grade openings in the foundation and walls are sealed to reduce soil gas entry into the home.
- **Vent Pipe** – A 3- or 4-inch PVC pipe (or other gas-tight pipe) runs from the gas-permeable layer through the house to the roof, to safely vent radon and other soil gases to the outside.
- **Junction Boxes** – An electrical junction box is included in the attic to make the wiring and installation of a vent fan easier.

## Types of radon measurement devices

**PASSIVE DEVICES:** Passive radon testing devices do not need power to function. These include charcoal canister, alpha track detectors, charcoal liquid scintillation devices, and electret ion chambers, which are available in hardware, drug, and other stores. They can also be ordered by mail or phone.

**ACTIVE DEVICES:** Active radon testing devices require power to function and are used by certified professionals. These include continuous radon monitors and continuous working level monitors.

## There are two general ways to test your home for radon

**SHORT-TERM TESTING:** The quickest way to test is with short-term tests. Short-term tests remain in your home usually for two to seven days, or up to 90 days. This varies depending on the device.

**LONG-TERM TESTING:** Long-term tests remain in your home for more than 90 days. Alpha track and electret ion chamber detectors are commonly used for this type of testing.

## Doing a short term test...

If you are testing in a real estate transaction and you need results quickly, the following options for short-term tests are acceptable in determining whether the home should be fixed.

### SHORT TERM TESTING OPTIONS

**Passive:** Take two short-term tests at the same time in the same location for at least 48 hours. Fix the home if the average of the two tests is at or above 4 picocuries per liter (pCi/L).

**Active:** Test the home with a continuous monitor for at least 48 hours. Fix the home if the average for the test is at or above 4 pCi/L.

## Radon testing checklist

### BEFORE CONDUCTING A RADON TEST:

- Notify the occupants of the importance of proper testing conditions. Give the occupant(s) written instruction or a copy of this Guide and explain the directions carefully.
- Determine what the length of the test will be and plan to conduct the radon test for a minimum of 48 hours; some test devices have a minimum longer exposure time.
- When doing a short-term test ranging from 2-7 days, it is important to maintain closed-house condition for at least 12 hours before the beginning of the test and during the entire test period.
- Closed-house conditions mean keeping all windows closed, keeping doors closed except for normal entry and exit, and not operating fans.
- If you conduct the test yourself, use nationally recognized radon measurement devices and follow the laboratory's instructions.
- If you hire someone to do the test, hire only a certified radon measurement professional.
- If the house has an active radon-reduction system, make sure the vent fan is operating properly.



### DURING A RADON TEST:

- Maintain closed-house conditions during the entire duration of a short-term test.
- Operate the home's heating and cooling systems normally during the test. For tests lasting less than one week, operate only air-conditioning units which recirculate interior air.
- Do not disturb the test device(s) at any time during the test.

### AFTER A RADON TEST:

- If you conduct the test yourself, be sure to promptly return the test device to the laboratory. Be sure to submit the required information, including start and stop times, test location, etc.
- If an elevated radon level is found, fix the home. Contact a certified radon mitigation professional about lowering the radon level. EPA strongly recommends that you fix the home when the radon level is 4 pCi/L or higher.
- Be sure that you or the radon tester can demonstrate or provide information to ensure that the testing conditions were not violated during the testing period.

## What should I do if the radon level is high?

If elevated levels are found during the real estate transaction, the buyer and seller should discuss the timing and costs of radon reduction.

### SELECTING A CERTIFIED RADON MITIGATION PROFESSIONAL

- Select a certified radon mitigation professional to reduce the radon level in your home. Any mitigation measures taken or system installed in your home should follow national consensus-based standards approved by the Association National Standards Institute (ANSI).
- EPA recommends that the mitigation contractor review the radon measurement results before beginning any radon reduction work. Ensure you have a warranty as well as a guarantee that the mitigation system will achieve certain reductions on the radon level.



### WHY SHOULD I TEST FOR RADON?

**Elevated Radon Levels are Found Throughout North Carolina:** Radon comes from the natural breakdown of uranium in soil, rock, sand, and water and gets into the air you breathe. Radon is the cause of over 21,000 lung cancer deaths in the United States each year.

**The U.S. Environmental Protection Agency, the U.S. Surgeon General, and the North Carolina Department of Health and Human Services Recommend That You Test Your Home:** Testing is the only way to know whether you and your family are at risk from radon. You cannot predict radon levels based on state, local, or neighborhood radon measurements.