

Basic Radon Facts

▶ Radon is a cancer causing, radioactive gas

Radon is a naturally occurring, radioactive gas released in rock, soil, and water formed from the breakdown of uranium. Levels in outdoor air pose a low threat to human health. However, radon can enter homes from surrounding soil and become a health hazard inside buildings. Radon does not cause symptoms. You can't see it or smell it, but an elevated radon level in your home may be affecting the health of your family.

Breathing radon over prolonged periods may damage lung tissue. Exposure to radon is the leading cause of lung cancer in nonsmokers in the United States. The U.S. Environmental Protection Agency (EPA) estimates that radon causes more than 20,000 lung cancer deaths in the country each year. Only smoking causes more lung cancer deaths. If you smoke and your home has radon, your risk of developing lung cancer can be much higher.



▶ Radon is found all over the United States

Radon has been found in elevated levels in homes in every state. High radon concentrations can occur sporadically in all parts of Connecticut. Two homes right next to each other can have different radon levels. Just because your neighbor's house doesn't have an elevated level of radon does not mean that your house will also have a low radon level. The only way to know if you have an elevated radon level above the EPA action level of 4 pCi/L is to test your home's indoor air. High levels of radon in homes usually come from the surrounding soil. Radon gas is drawn into a house through foundation cracks and openings, such as sump pump lids and plumbing features, on the lower levels of your home. Radon may also be found in your water supply if your home is served by a private well. For more information on radon in water, read the Connecticut Department of Public Health *Radon in Your Water* fact sheet.

▶ You should test your home for radon

The U.S. Surgeon General recommends that all homes in the U.S. be tested for radon.

How to Obtain Radon Test Kits

To obtain an easy-to-use radon test kit, you can:

- Purchase a test kit from the American Lung Association: **1-800-LUNG-USA**
- Purchase a test kit online from the National Radon Program Services at: **www.sosradon.org/test-kits**

Testing your home is easy to do and should only take a few minutes of your time. It's as easy as opening a package, placing a radon detector in the basement or on the first floor, and, after 2 to 7 days, sending the detector to a lab for analysis. The lab will then send you the radon test result within a few weeks.

Radon test kits can be purchased from the American Lung Association (1-800-LUNG-USA). You can also order them online from Kansas State University (KSU) or other radon testing companies.

Basic Radon Facts (continued)

You may prefer to hire a qualified tester to perform a radon test in your home. Visit the CT DPH Radon Program website for a list of qualified radon measurement professionals.

Radon levels vary seasonally and tend to be higher in the winter months. The best time to test for radon is in the colder season between the months of November through March when your house is closed up. Keep your windows and outside doors closed as much as possible during the test.

The amount of radon in the air is measured in “picocuries per liter of air” or (pCi/L). The US EPA recommends that homes with radon levels at 4 pCi/L or higher be reduced. However, any amount of radon exposure can pose some health risk. Therefore, the EPA recommends that homeowners may want to consider fixing their homes for radon levels between 2 pCi/L and 4 pCi/L. Even if your radon test result is below 4 pCi/L, you may want to test again sometime in the future. If your living patterns change and you begin occupying a lower level of your home, such as the basement, you should test again on that level. If you are planning a structural renovation, such as converting an unfinished basement area into a living space, it is important to test both before you begin the renovation and after the work is completed.



▶ Radon levels can be reduced or “mitigated”

If your house has elevated levels of radon, you should choose a qualified radon mitigation (reduction) contractor to take steps to reduce the levels to below 4 pCi/L. Qualified radon contractors have attended specialized courses and are registered through the CT Department of Consumer Protection. A mitigation contractor takes steps including installing ventilation systems, sealing entry routes for radon gas and installing sub-slab depressurization systems to reduce radon levels. The cost of making repairs to reduce the radon level depends on several factors, including how your home was built. The approximate cost of a radon mitigation system in Connecticut is approximately \$1,200 - \$1,500. Visit the CT DPH website for a list of qualified radon mitigation professionals. For more information on ways to reduce radon, read the EPA booklet: *Consumer Guide to Radon Reduction*.

▶ New homes can be built with radon-resistant features

Radon-resistant construction methods can be effective in reducing radon entry. When installed properly, these simple and cost-effective techniques can help reduce the accumulation of radon gas in homes by preventing entry and venting the gas outdoors. All of the techniques and materials are commonly used in construction; no special materials are required. Talk to your builder about designing your new house with radon resistant construction techniques. Every new home should be tested after occupancy, even if it was built using radon-resistant construction methods. If radon levels above the EPA’s action level of 4 pCi/L are detected, a fan can be installed to activate the system. It is easier and less expensive to reduce radon levels in homes that have been built with radon-resistant construction techniques. For more information on radon resistant new construction techniques, read the EPA booklet: *Building Radon Out*.

▶ For more information

Visit the Connecticut Department of Public Health Radon Program website for more information on radon and links to the resources mentioned in this publication: www.ct.gov/dph/radon

***Radon presents a serious health risk, but it can be controlled easily and cost-effectively.
Test your home for radon and take steps to reduce elevated levels.***