

RADON IN YOUR HOME: PROTECT YOUR FAMILY

Stakeholder Review DRAFT

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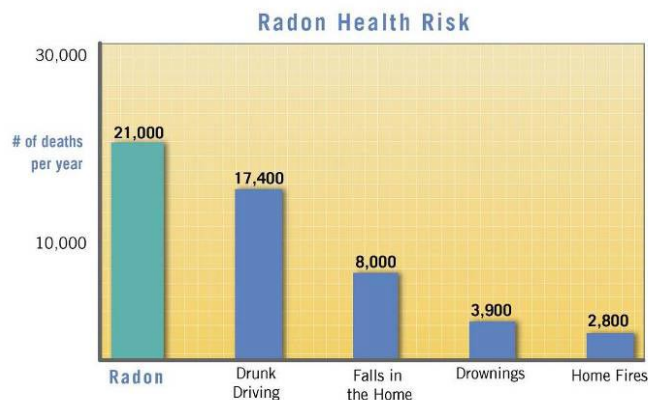
1. Why Should I Care About Radon?

Living “green” is about more than just energy efficiency and recycling—it is also about giving your family a healthier home. Breathing cleaner air means checking your home for radon, an indoor air problem that is the second leading cause of lung cancer.

Radon kills more than 20,000 people each year, more than carbon monoxide poisoning, household falls, and home fires combined. Though radon can be deadly, you can reduce radon exposure in your home before it causes harm.

What Is Radon?

Radon is a naturally occurring radioactive gas that has no odor or color. You cannot see it or smell it. Radon comes from the decay of uranium in soil, rock, and water. The gas is formed in and travels through the soil where it can enter homes through foundation openings and become trapped inside the home.



Quick radon facts:

- Radon causes lung cancer.
- Radon is found in homes throughout the United States.
- Radon usually enters homes from the ground.
- The only way to know if you have a radon problem is to test for it.
- Radon problems can be fixed.
- New homes can be built with radon-reducing features.

Radon levels are measured in picocuries (“pee-co-cure-ees”) per liter, often noted as pCi/L. This measurement describes how much radon is in one liter of the air found in your home.

There is no known safe level of exposure to radon. EPA and the U.S. Surgeon General strongly recommend that you fix your home if you have 4 pCi/L or more of radon in your home. To help minimize your future risk, you should also seriously consider taking action if your radon level is less than 4 pCi/L.

Why 4 pCi/L?

Exposure to radon at low levels poses a health risk. EPA based the 4 pCi/L action level on four factors: the health risk involved; the effectiveness of available mitigation technologies; cost-effectiveness; and, the goal set by Congress to reduce indoor radon levels to as close to the outdoor level as possible. EPA’s estimate of radon-related lung cancer deaths is based on exposure to an average of about 1.3 pCi/L over a lifetime. Existing mitigation technologies allow the radon level in most homes to be reduced to 2 pCi/L most of the time.

How Can Radon Affect My Health?

The Surgeon General, the nation’s top medical advisor, reports that **radon is the second leading cause of lung cancer in the United States and the number one cause among non-smokers**. In 2005, the Surgeon General issued a National Health Advisory on Radon warning:

“Radon gas in the indoor air of America's homes poses a serious health risk. More than 20,000 Americans die of radon-related lung cancer every year. Millions of homes have an elevated radon level. If you also smoke, your risk of lung cancer is much higher. Test your home for radon every two years, and retest any time you move, make structural changes to your home, or occupy a previously unused level of a house. If you have a radon level of 4 pCi/L or more, take steps to remedy the problem as soon as possible.”

When a person breaths radon gas, small radioactive particles get trapped inside the lungs. These particles can damage the lungs and in time lead to lung cancer. *Smoking combined with radon is a very serious health risk*. If a person smokes and is exposed to radon, the risk of lung cancer is ten times greater than radon exposure alone.

The following chart shows the lifetime risk of lung cancer death per person from radon exposure in homes (excerpted from the updated *EPA Assessment of Risks from Radon in Homes*).

Radon Level ^a	Lifetime Risk of Lung Cancer Death (per person) from Radon Exposure in Homes ^b		
pCi/L	Never Smokers	Current Smokers ^c	General Population
20	36 out of 1,000	26 out of 100	11 out of 100
10	18 out of 1,000	15 out of 100	56 out of 1,000
8	15 out of 1,000	12 out of 100	45 out of 1,000
4	73 out of 10,000	62 out of 1,000	23 out of 1,000
2	37 out of 10,000	32 out of 1,000	12 out of 1,000
1.25	23 out of 10,000	20 out of 1,000	73 out of 10,000
0.4	73 out of 100,000	64 out of 10,000	23 out of 10,000

a Assumes constant lifetime exposure in homes at these levels.

b Estimates are subject to uncertainties as discussed in Chapter VIII of the risk assessment.

c Note: BEIR VI did not specify excess relative risks for current smokers.

Source: www.epa.gov/radon/risk_assessment

2. How Can This Guide Help?

Staying healthy can include one action that is low-cost, easy to do, and can lead to a greener, healthier home: testing for radon. This guide will show you how.

This guide explains how to protect yourself and your family from radon. It describes how radon can damage your lungs and offers simple steps to reduce radon exposure. You will learn how

easy it is to test your home for radon and what the test results mean, as well as how to have a radon problem in your home mitigated—or fixed.

Whether you are a homeowner, real estate agent, or anyone concerned about radon, this guide has helpful information. For example:

- Do you have questions about how to fix radon in your home? *Section 11 can offer ideas.*
- Are you a real estate professional looking for radon information to share with new homeowners? *See section 9 for the basics about radon testing in real estate transactions.*
- Would you like to have a home built that has features to help reduce radon exposure? *Read section 14 to learn more about radon-reducing features.*

This guide answers questions just like these. It provides useful tips and vital radon information you need to protect yourself and your family.

3. Can Radon Be Found in Any Home?

Radon can enter your home through any opening in the foundation floor or walls. Once inside, the gas can become trapped and pose a health risk. While radon problems may be more common in certain areas of the country, any home in any state may be affected including:

- New homes
- Old homes
- Well sealed homes
- Drafty homes
- Homes with basements
- Homes without basements
- Homes with crawl spaces

Nearly one out of every 15 homes in the United States is estimated to have high concentration at or above 4 pCi/L. You cannot predict which homes will have high radon level. Two identical homes next to each other can have different radon levels, depending on how the home was constructed as well as lifestyle factors. *The only way to know your home's radon level is to test.*

4. How Do I Get a Radon Test Done?

Do-it-yourself radon test kits are available from several sources. Many home improvement stores sell test kits. Free test kits are sometimes available from local or county health departments or from state radon programs. Discounted low-cost radon test kits are also available from the [National Safety Council](http://www.nsc.org/issues/radon/) (www.nsc.org/issues/radon/) or call 1-800-SOS-RADON (1-800-767-7236). Do-it-yourself radon test kits are also available from some local or state [American Lung Association](http://www.lungusa.org) chapters (www.lungusa.org).

The cost of radon test kits varies. Do-it-yourself test kits are usually less expensive than tests performed by a qualified radon measurement professional. Do-it-yourself test kits purchased from a hotline, online, or through a retail outlet generally range from \$10 (hotline) up to \$100 (online or retail), depending on whether it is a short-term or a long-term test. A radon test conducted by a qualified professional may cost up to several hundred dollars. Tests by professionals are often used when buying or selling a home. See section 9 for more information about radon and real estate.

If you have questions about finding a radon test kit, the organizations listed in section 17 can help. Your state radon office is another helpful resource for finding tests kits in your area, as well as locating a qualified radon testing and mitigation professional. Visit the [EPA Web site \(www.epa.gov/iaq/whereyoulive.html\)](http://www.epa.gov/iaq/whereyoulive.html) to find out how to contact your state radon office.

Find the Right Radon Test for Your Home

Every home should be tested for radon, but what test should you choose?

- **I am testing my home for radon.** See section 5.
- **I am testing a home that I am buying or selling.** See sections 7 and 8.
- **I am having a new home built.** See section 14.

5. How Can I Test My Home?

There are two types of radon tests: short-term tests, which take up to 90 days (typically between two to seven days), and long-term tests that take more than 90 days. Short-term tests can provide test results quickly, but a long-term test offers a better estimate of a home's year-round average radon level.

Whether you are using a short- or a long-term test, testing your home is easy. Follow these steps to make sure your test result is accurate:

Preparing for Your Test

- Follow the instructions that come with your test kit. Remember the lab will need to know when you start and stop the test and where you placed the test device.
- For a short-term test, close every window and door that can let air into your home from the outside. Begin closing all windows and doors at least 12 hours before starting the test, and keep them closed during the test, except when you enter or leave your home.

Starting Your Test

- Place the test kit in the lowest lived-in level of the home, such as a furnished basement or the ground floor.
- Place the kit in a room that is used regularly, such as a living room, playroom, den, or bedroom, on the lowest level, but *not* your kitchen or bathroom.
- Make sure the kit is placed at least 20 inches above the floor.

During Your Test

- Do not operate fans or other machines that bring in air from the outside because it may change your test result. Re-circulated air from heating or air conditioning systems is fine.
- Fans that are part of a radon mitigation system or small exhaust fans that run for short periods may be used during the test.

Maintaining Closed House Conditions

Depending how long your test will last you may need to minimize the amount of outside air entering your home to ensure an accurate test result. The shorter the test the more important it is to keep your house closed.

	2-4 Day Test	4-7 Day Test	7- 90 Day Test
12-Hours Before Test Start	Required	Recommended	Not needed
After Test Start	Required	Required	Recommended

Adapted from EPA – *Homes Protocols*, 402R-93-003, June 1993.

After Your Test

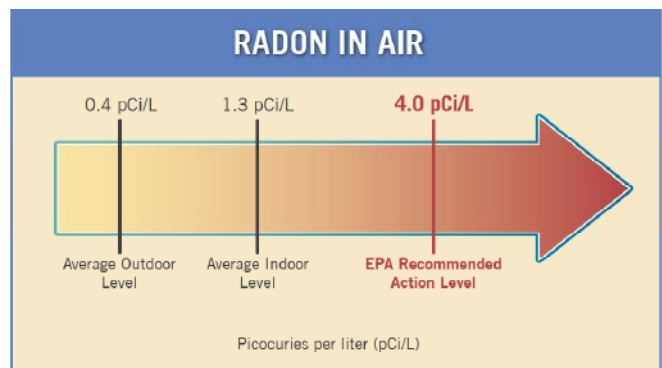
- Follow the instructions that come with your test kit. Remember that the lab will need to know when you start and stop the test and where you placed the test device.
- Write down the stop time and date, and reseal the package.
- Send the test to the lab address listed on the package right away.
- Keep information on where you sent the test kit in case results are delayed.
- You should receive your test results within a few weeks.

If you cannot or prefer not to test your home yourself, you can have a qualified professional radon tester do it. EPA recommends that when buying or selling a home, the radon testing be done by a professional. Contact your state radon office to find the names of qualified radon professionals.

6. What Does My Radon Test Result Mean?

EPA recommends fixing radon in your home if the results of one *long-term* test or the average of two *short-term* tests shows radon levels at or above 4 pCi/L. You may also want to consider fixing your home if the level is between 2 and 4 pCi/L.

Even if your test result is below 4 pCi/L, you may want to test again if your living patterns change. If, for example, you begin living in a lower level of your home, such as a new den in the basement, you should retest your home on that level. If you finish or renovate an unfinished area, you should test your home before starting the project *and* after the project is finished.



If your home has been mitigated for radon, you should test it again to verify that the radon level has gone down.

7. What Should I Know If I Am Buying a Home?

EPA recommends that you know the radon level in any house you may want to buy.

What if the Home Has Already Been Tested for Radon?

You can accept an earlier test result from the seller or you can ask the seller for a new test to be done by a qualified radon tester. To help you make your decision, ask the seller the following questions:

- What were the results of any earlier tests?
- Who tested it last? The homeowner, a radon professional, or another person?
- Where in the home was the test taken? Was it done on a lower level of the home that you plan to use?
- What, if any, changes have been made to the house since the test was done? Have there been any changes to the heating, ventilation, and air conditioning (HVAC) systems? Have any new rooms been added to the home?
- Did the test follow the *Radon in Real Estate Testing Checklist* recommendations? See section 9 on radon and real estate.

If you decide that you want a new radon test, discuss it with the seller as soon as possible. For more information on working with a qualified radon professional, see section 10.

What if the Home Has Not Yet Been Tested for Radon?

Make sure that a radon test is done as early in the home buying process as possible. You may even want the sales contract to include:

- Where in the house the test will be done.
- Who will conduct the test.
- What type of test to use.
- When the test will be done.
- How the seller and the buyer will share the test results and test costs (if necessary).
- When radon mitigation measures will be taken at what level (if necessary) and who will pay for them.

8. What Should I Know If I Am Selling a Home?

What Should I Know if the Home Has Already Been Tested for Radon?

If you have already tested your home for radon, review the *Radon in Real Estate Testing Checklist* (section 9) to make sure that the test was done correctly. If it was, give your test results to the buyer. If it has been more than two years since you tested, retest to make sure that the

radon level is still below 4 pCi/L. Also, tell potential buyers if your home has a radon mitigation system. Give them information about the system's operation, maintenance, and any warranties.

The potential buyer may still ask for a new test, especially if:

- The test does not meet all items on the *Radon in Real Estate Testing Checklist*. See section 9 for more information.
- The last test was done more than two years ago.
- You have renovated or altered your home since it was last tested.
- The buyer plans to live in a lower level of the house than was tested. For example, the buyer may plan to use a room in the basement, but you did the radon test on the first floor.
- Your state or local government requires sellers to tell buyers whether a radon test occurred or the radon level in the home.

What Should I Know if the Home Has Not Yet Been Tested for Radon?

Test your home as soon as possible. If you can, test your home before putting it up for sale. Some areas require certain steps be taken when testing a home during a real estate transaction. Contact your state radon office for more information, and use the *Radon in Real Estate Checklist* below to help guide you. If you hire a professional to test your home, be sure to work with a qualified individual or company that is experienced in testing homes during real estate transactions. See section 10 to learn more.

Consider fixing any home with a radon level at or above 4 pCi/L before it is sold. Section 11 offers more information on fixing houses with radon.

9. Radon in Real Estate Testing Checklist [WILL BE ITS OWN PAGE/SPREAD]

Buying or selling a home is one of the bigger transactions many of us will make.

When testing as part of a real estate transaction, EPA recommends the use of duplicate radon tests or an electronic test that provides frequent radon measurements. Two short-term tests could be taken at the same time in the same location for at least 48 hours. Or an initial short-term test could be taken for a at least 48 hours, immediately followed by a second test using an identical device in the same location as the first test.

EPA's *Radon in Real Estate Testing Checklist* can help you through all of the

Radon Test Device Placement

EPA recommends placing testing the device(s) in the lowest level of the home that could be used regularly, whether it is finished or unfinished. Conduct the test in any space that could be used by the buyer as a bedroom, play area, family room, den, exercise room, or workshop. Based on the client's intended use of the space, the qualified testing professional should identify the appropriate test location and inform the client (buyer). Do not test in a closet, stairway, hallway, crawl space, or in an enclosed area of high humidity or high air velocity, such as a kitchen, bathroom, laundry room, or furnace room.

steps for testing a home during this important time. If the seller or qualified tester cannot confirm that all of these items have been completed, you may need to test the home again.

Before Conducting a Radon Test:

- Tell the people living in the home about the importance of proper testing conditions. Give them a copy of this checklist and explain the directions carefully.
- Conduct the radon test for at least 48 hours (some tests may need more than 48 hours to get an accurate result).
- When doing a short-term test (typically from two to seven days), keep the house closed for at least 12 hours before the beginning of the test and during the entire test period (see section 5).
- If you conduct the test yourself, use a qualified radon test and follow the kit's instructions. Your state may be able to provide you with a list of do-it-yourself test devices available from qualified laboratories. Find out whether the laboratories can provide you with results quickly enough for you.
- If you hire someone to do the test, hire only a qualified individual. Some states and private certification programs issue photo identification (ID) cards. Ask to see it. The tester's ID number, if available, should be included in the test report.
- The test should describe how to prevent or detect tampering during testing conditions or with the testing device itself.
- If the house has a radon mitigation system, make sure the vent fan is operating properly. If the fan is not operating properly, have it (or ask to have it) repaired and then test the home.

During a Radon Test:

- Keep the house closed (see section 5) the entire time of a short-term test, especially for tests shorter than one week. Typically, tests done as part of a real estate transaction will be short term and less than one week.
- Operate the home's heating and cooling systems normally during the test. For tests lasting less than one week, use only air-conditioning units that re-circulate the air inside your home, rather than bringing air in from outside.
- Do not disturb the test device at any time during the test.
- If a radon mitigation system is in place, make sure the system is working properly. The system should be used during the entire radon test.

After a Radon Test:

- If you conduct the test yourself, promptly send the test device to the address listed in the kit. Be sure to complete the required information, including start and stop times, test location, etc.
- Be sure that you or the radon tester can show that all testing conditions were met during the entire test.
- If a radon level of 4 pCi/L or more is found, fix the home. Contact a qualified radon mitigation contractor about lowering the radon level.

10. How Do I Find a Qualified Radon Professional?

Radon professionals are qualified through one of the two national voluntary radon proficiency programs—the National Radon Proficiency Program and the National Radon Safety Board—or through state training and licensing requirements.

You may want to have a radon test done by a qualified radon tester instead of doing it yourself with a kit, especially if the test is being done as part of a real estate transaction. A qualified tester can:

- Evaluate the home and recommend how to test it.
- Explain how to keep your home in the proper condition during the radon test.
- Analyze the data and provide an independent test result.

If you have a radon level of 4 pCi/L or more, EPA recommends that you get a qualified radon mitigation contractor to fix your home. A radon mitigation contractor is trained to reduce radon levels in homes. A qualified mitigation contractor can:

- Review testing guidelines and measurement results.
- Determine whether additional measurements are needed.
- Evaluate the radon problem and provide you with a written proposal on how to fix it.
- Design a radon mitigation system.
- Install the appropriate system according to the American Society for Testing and Materials (ASTM) standard E2121, and state and local codes.
- Test again to make sure the radon mitigation system works. Some states require an independent test after mitigation.

You should ask to see a photo identification card of your radon professional. The radon professional's identification number should be noted in the test report and other documents.

Contact your state radon program first when looking to hire a radon professional. For states that do not maintain a list of qualified testers, contact one of the two privately run national radon proficiency programs. For links and more information, visit www.epa.gov/radon/proficiency.html.

11. How Can the Radon Level in My Home Be Reduced?

If your home has a radon problem, it can be fixed. Fixing a radon problem will help you protect your health and the health of your family. See section 1 for more information on how radon can affect your health.

What is a Radon Mitigation Contractor?

A radon mitigation contractor is a professional who can fix your home to reduce the radon level. Only hire a radon mitigation contractor who is qualified to fix homes for radon.

If you have a radon level of 4 pCi/L or above, EPA recommends that you get a qualified radon mitigation contractor to fix your home. See section 10 for information on hiring a qualified radon professional to reduce the radon level in your home.

In houses that have a basement or a slab-on-grade foundation, radon is usually reduced by one of four types of soil suction: sub-slab depressurization, drain tile suction, sump hole suction, or block wall suction. Sub-slab depressurization is the most common and usually the best method for reducing radon. In this system, one or more suction pipes pass through the floor into the crushed rock or soil underneath. The pipes also may be put below the concrete slab from outside the house. A radon vent fan connected to the suction pipe draws the radon gas from below the house and releases it into the outdoor air. See the diagram below for an example of a sub-slab depressurization system.

If your home has a crawlspace, the mitigation method will depend on the type of floor, how accessible it is, and whether the space is large enough to work in. If the crawlspace has a concrete floor, the preferred mitigation technique is sub-slab suction. If it has an earth floor, the preferred mitigation technique is sub-membrane suction. With sub-membrane suction, the floor is covered with a thick plastic sheet. A vent fan and piping system then draws the radon from under the sheet and vents it outdoors.



Sub-slab depressurization is the most common and usually the most reliable radon mitigation method.

In crawlspaces without access or that are too small to work in, ventilating the space by exhausting air from the space or blowing air into the space may be a workable alternative. A qualified mitigation professional can advise you about the suitability of using a ventilation approach. Using ventilation will depend on what the crawlspace contains. For example, water pipes, drains or sewer lines may need insulation in colder climates.

As part of installing a mitigation system, cracks and other openings in walls and floors in contact with the ground are sealed. As a mitigation method, sealing alone is not recommended because it does not significantly reduce the radon level. A fan-powered mitigation system is more effective in combination with sealing techniques.

When reducing radon, it is common to seal cracks and other openings in your home's foundation. EPA does not recommend sealing cracks alone as a method to reduce radon, because sealing by itself does not reduce radon. It must be combined with a vent pipe to force the radon out. Sealing cracks can help:

- Limit the flow of radon into your home.
- Reduce the loss of heated or cooled/conditioned air.
- Make your radon mitigation system work better and cost less to operate over time.

12. What Are the Costs and Benefits of a Radon Mitigation System?

An effective radon mitigation system can reduce the radon level in your home by up to 99 percent. EPA strongly recommends that you hire a qualified radon mitigation contractor to reduce the radon level in your home. To compare prices and services, get more than one cost estimate. Your state or local radon official can help you if you have questions.

The total costs of fixing your home using a qualified mitigation contractor may range from several hundred to several thousand dollars. Many issues can affect costs including:

- Availability of qualified radon mitigation professionals where you live
- Travel costs to and from your home
- Permit requirements and other costs related to state regulation of radon service providers
- Home size, type of foundation, and surrounding soils
- Radon mitigation features already installed in the home during construction

Radon mitigation systems need occasional maintenance. Check your warning device (all properly installed systems should have one) regularly to make sure the system is working correctly. Vent fans may last for five years or more (manufacturer warranties usually do not exceed five years). You may need to repair or replace older fans.

13. How Do I Know If My Radon Mitigation Contractor Did a Good Job?

Make sure your radon mitigation contractor does the following basic steps when putting a radon mitigation system in your home:

- Performs a visual inspection of the home and designs an appropriate system. If this inspection fails to provide enough information, have the contractor perform diagnostic tests.
- Labels the radon mitigation system clearly to avoid accidental changes to the system. For example, the radon vent pipe can be mistaken for a plumbing pipe.
- Vents the exhaust pipe(s) above the surface of the roof. Make sure it is 10 feet or more above the ground, and at least 10 feet away from windows, doors, or other openings that could allow the radon to reenter the home.
- Installs an exhaust fan in an appropriate place. The exhaust fan must not be in or below a livable area. If installing an exhaust fan outside, the fan must meet local building code requirements for exterior use.
- Follows local code requirements when installing electrical connections for radon mitigation systems.
- Installs a warning device that is easily seen or heard to alert you if your system stops working properly.

More on Doing Radon Mitigation

Information on radon mitigation training courses and copies of EPA's technical guidance documents are available from your state radon office and EPA's Web site. To download a copy of the American Society of Home Inspectors' [Radon Mitigation System Inspection Checklist](#), visit www.epa.gov/radon/pdfs/ashicklst.pdf.

- Explains and demonstrates how your radon mitigation system works and how to maintain it.
- Provides you with written operation and maintenance instructions and copies of any warranties.

Once your contractor has completed these steps, you should verify the system is working by conducting a post-mitigation test within 30 days of installation but no sooner than 24 hours after your system is in operation with the fan on.

14. What Should I Know If I Am Having a New Home Built?

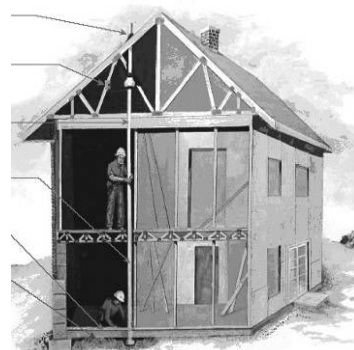
Many homes are being built with features to reduce the amount of radon entering them. Many builders routinely include these features in some of their homes. Ask your builder about these features. If they do not use them, ask your builder to include them in your new home.

If you are the first owner of a new home, EPA strongly recommends testing your new home for radon.

Tell your builder about EPA's document *Building Radon Out: A Step-by-Step Guide on How to Build Radon-Resistant Homes*. Your builder can also work with a qualified radon mitigation contractor to design and install radon-reducing features. The cost to include radon mitigation features in a new home when it is being built can vary widely.

There are many benefits to including radon-reducing features in your new home including:

- **Reduced Costs:** It is easier and less expensive to build radon-reducing features into a house during construction than it is to fix a radon problem later. Radon-reducing features are easy to install using common building materials.
- **Easy Upgrades:** Even if a house is built with radon-reducing features, you should still test it and add a vent fan to further reduce radon levels if tests show the level is between 2 and 4 pCi/L.
- **"Greener" Home:** Radon venting features are easy to install at the time of construction and are one of a number of actions you can take to make your whole house healthier and "greener" (see section 17).
- **Energy Savings:** Sealing cracks and other openings in floors and walls in contact with the ground help to reduce radon and may reduce your utility bills by preventing the loss of heated or cooled air.



New homes can be built with radon-reducing construction features.

To learn more about building homes that are radon-resistant, visit EPA's [Radon-Resistant New Construction Web site at www.epa.gov/radon/construction.html](http://www.epa.gov/radon/construction.html). Builders can obtain the

industry standard [ASTM E1465](http://www.astm.org) for radon control options in new construction by visiting www.astm.org.

Building codes in your state or area may require radon-reducing construction features. Contact your state radon office to learn the requirements.

15. What Should I Know If I am Renting a House or an Apartment?

If you are renting a house or an apartment, make sure your landlord understands the importance of radon testing. Consider giving your landlord a copy of this publication and asking your landlord to contact your state radon program. Encourage your landlord to test for radon. If radon is found to be at or above 4 pCi/L, the landlord, who is usually responsible for keeping his or her properties in a safe and fit condition, may have to fix the radon problem. Ask your landlord to also consider fixing any problems if the level is between 2 and 4 pCi/L.

16. What Should I Know About Radon in Water?

Radon in the air poses the greatest threat to your health. Drinking water with radon in it, or breathing the off-gases that come from radon in water, may also damage your health. Research has shown that your risk of lung cancer from breathing radon in air is much larger than your risk of stomach cancer from swallowing water with radon in it. Most of the risk from water is from the radon released into the air during showering and household uses.

If the air inside your home tested at or above 4 pCi/L, *have your water tested*. If you are concerned that radon may be entering your home through the water, and your water comes from a public water supply, contact your water supplier. If you have tested your private well and found radon, contact your state radon office for information. Some states and localities may have laws concerning radon in water. Be sure to check for any local regulations.

Your home's water supply can be treated in two ways: point-of-entry and point-of-use treatments. Point-of-entry treatment means removing radon from the water before it enters the pipes in your home. Point-of-use treatment devices remove radon at the tap using an aeration system or a granular activated carbon (GAC) filter. Point of use systems treat only a small portion of the water you use, so they are not as effective in reducing the risk from breathing radon released into the air from all water used in the home.

For More Information about Radon in Water call EPA's Drinking Water Hotline at (800) 426-4791 or visit EPA's Radon in Water Web site at www.epa.gov/safewater/radon.html .
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17. Where Can I Find More Radon Information?

If you have a radon-related question, contact your state radon office or EPA Regional Office. Up-to-date information on how to contact your state radon office is available online. Most states

will also provide you with a list of qualified radon professionals. Native Americans living on Tribal Lands should contact their Tribal Health Department or Housing Authority for assistance. In addition to the help your state provides, the following Web sites, hotlines, and publications are good sources for additional radon information. You can also find general indoor air quality information and publications on EPA's [Indoor Air Quality](http://www.epa.gov/iaq) Web site at www.epa.gov/iaq.

EPA Web Sites

These Web sites provide additional radon information and resources.

- [Radon Web Site](http://www.epa.gov/iaq/radon) (www.epa.gov/iaq/radon)
Includes links to the National Academy of Sciences' radon report, radon-resistant new construction, the map of radon zones, radon publications, hotlines, and more.
- [State Radon Office](http://www.epa.gov/iaq/wherelive.html) and [EPA Regional Offices](http://www.epa.gov/iaq/wherelive.html) (www.epa.gov/iaq/wherelive.html)
Provides state's radon office and EPA Regional Office contacts.
- [Radon in Water](http://www.epa.gov/safewater/radon.html) (www.epa.gov/safewater/radon.html)
Includes information on statutory requirements and links to the drinking water standards program.
- [Frequently Asked Questions](http://iaq.custhelp.com) (<http://iaq.custhelp.com>)
Provides Indoor Air Quality FAQs. Users can choose a topic, including radon, from a drop-down menu.

Other Online Radon Resources

A number of national non-profit groups recognize the health risk posed by radon. These organizations offer further resources and information.

- [National Safety Council](http://www.nsc.org/issues/radon) (www.nsc.org/issues/radon)
- [American Lung Association](http://www.lungusa.org) (www.lungusa.org)
- [Children's Environmental Health Network](http://www.cehn.org/) (www.cehn.org/)
- [National Center for Healthy Housing](http://www.centerforhealthyhousing.org/) (www.centerforhealthyhousing.org/)
- [National Environmental Health Association](http://www.neha.org/) (www.neha.org/)
- [National Radon Proficiency Program](http://www.radongas.org/) (www.radongas.org/)
- [National Radon Safety Board](http://www.nrsb.org/) (www.nrsb.org/)
- [Conference of Radiation Control Program Directors](http://www.crcpd.org/) (www.crcpd.org/)
- [American Association of Radon Scientists and Technologists](http://www.aarst.org/) (www.aarst.org/)
- [National Council of State Legislatures](http://www.ncsl.org/) (www.ncsl.org/)

Radon Hotlines

EPA supports the following hotlines to serve consumers with radon-related questions and concerns.

- **1-800-SOS-RADON (767-7236)**
Operated by National Safety Council in partnership with EPA.

- **1-866-528-3187**
National Hispanic Indoor Air Quality Hotline operated by the National Safety Council.
- **1-800-55RADON (557-2366)**
Radon Fix-It Hotline, operated by the National Safety Council in partnership with EPA. For general information on how to mitigate your home and live help with your radon questions.
- **1-800-426-4791.**
Safe Drinking Water Hotline for general information on drinking water, radon in water, testing and treatment, and radon drinking water standards.

For a list of available radon publications, visit www.epa.gov/radon/pubs.

Your Home—Healthier and Greener

What does it mean to have a healthier and “greener” home? It means you live in a home that protects your health and the environment from pollutants. EPA’s Deputy Administrator, Marcus Peakcock, said, “In our national drive to reduce greenhouse gases by making our homes greener, we shouldn’t forget that they can’t truly be green without being safe places for people to live. It’s remarkably easy to protect our loved ones by testing for radon and building new homes with radon-resistant features that allow everyone to breathe freely and safely.” The techniques to prevent radon from entering a home are a practical and inexpensive way to offer you the benefit of a healthier home in addition to reducing your family’s risk of lung cancer. Along with saving energy and recycling, testing your home for radon is key to living a greener and healthier life. This guide shows you that there are simple ways to reduce radon and make your home's air safer to breathe.

[Placeholder for language and a link to a future EPA brochure, “Care for Your Air,” regarding indoor air quality.]