




# RADON

U.S. Department of Housing and Urban Development • Office of Healthy Homes and Lead Hazard Control

A young girl with dark hair and bangs, wearing a white dress, is looking out of a window. The window has a white frame and a dark handle. The background is slightly blurred, showing what appears to be a building exterior.

*"You can't see radon. And you can't smell it or taste it. But it may be a problem in your home"*

U.S. Environmental Protection Agency

## Did you know...?

- Radon is the second leading cause of lung cancer, after smoking?<sup>1</sup>
- Approximately 20,000 cancer deaths each year are caused by radon?<sup>2</sup>

## What is it?

**Radon is a radioactive gas that cannot be seen, smelled, or tasted** and is found naturally around the country. When you breathe air containing radon, the sensitive cells in your airway are irritated, increasing your risk of getting **lung cancer**.

Radon is found in the dirt and rocks beneath houses, in well water, and in some building materials. It can enter your house through soil, dirt floors in crawlspaces, and cracks in foundations, floors, and walls. Once inside, radon gas can sometimes get trapped inside the house.

All houses have some radon, but houses next to each other can have very different radon levels, so the only way to measure your particular risk is to test your own house. Radon is measured in "picoCuries per liter of air," abbreviated "pCi/L." This measurement describes the number of radon gas particles in one liter of air. The amount of radon outdoors is usually around 0.4 pCi/L, and indoors is around 1.3 pCi/L. Even though all radon exposure is unhealthy, radon at levels below 4 pCi/L are considered acceptable. If your home has more than 4 pCi/L, you should take action to lower this level.

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## What can you do?

### Test your Home!

About 1 out of every 15 homes has a radon problem, and yours could be one of them! The only way to know for sure is to test your home. You can buy a radon test at a hardware store or order it by mail. There are two types of tests: short-term tests take 2 days, while long-term tests take around 90 days but give results that are slightly more accurate.

#### Follow all the instructions that come with your test kit.

If possible during the test, keep your windows closed to keep air from escaping. Place your test kit in a room on the lowest level of your home that you use regularly, probably on the first floor or in the basement. When the test is done, send it to a lab to process your results.

Instead of doing the testing yourself, you can hire a professional tester to do it for you. Contact your state's radon office for a list of qualified testers.

### Fix It!

It is possible to lower the levels of radon, and the risk of lung cancer, in your home. Most of the time, this will involve removing radon gas from underneath your concrete floor, crawlspace, or foundation before it can enter your home. This will require special knowledge and skills and you will need to hire a professional contractor to help you reduce the levels of radon in your home. If you are considering fixing your home's radon problem yourself, you should first contact your state radon office for guidance and assistance.

### A few more things you can do

- 1. Stop smoking** and discourage smoking in your home. Smoke increases the risk of lung cancer from radon.
- 2. Increase air flow in your house** by opening windows and using fans and vents to circulate air. Natural ventilation in any type of house is only a temporary radon reduction approach because of the following disadvantages: loss of heat or air conditioned air, related discomfort and increased costs, and security concerns.
- 3. Seal cracks in floors and walls** with plaster, caulk, or other materials designed to seal cracks and gaps.

Contact your state radon office for a list of qualified contractors in your area and for information on how to fix radon problems yourself. Always test again after finishing to make sure you've fixed your radon problem.

If you are buying a new home, ask whether radon-resistant construction techniques were used. It is almost always cheaper and easier to build these features into new homes than to add them later.

### For more information . . .

Visit HUD's website at [www.hud.gov/offices/lead](http://www.hud.gov/offices/lead) for more information about addressing health hazards in homes or to learn if HUD has a Healthy Homes program in your community.

Download a copy of "Help Yourself to A Healthy Home" for more practical steps you can take to make your home a healthy home.

### More Federal Resources

US Environmental Protection Agency (EPA)

[www.epa.gov/radon](http://www.epa.gov/radon)

### Other Resources

State Radon Contacts

1-800-438-4318 (Indoor Air Quality Information Clearinghouse)

National Radon Hotline to order radon test kits

1-800/SOS-RADON (1-800-767-7236)

National Safety Council and EPA Radon Hotline with an operator to answer questions about radon

1-800-55RADON (1-800-557-2366)

Radon Fix-it Hotline

1-800-644-6999

Spanish Language Radon Hotline

1-800-725-8312

American Lung Association

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

**Radon test kits are available at hardware stores or by mail**



<sup>1</sup>U.S. Environmental Protection Agency "Indoor Air- Radon" [www.epa.gov/radon](http://www.epa.gov/radon) August 25, 2004

<sup>2</sup>U.S. Environmental Protection Agency "Assessment of Risks from Radon in Homes" [www.epa.gov/radon/risk\\_assessment.html](http://www.epa.gov/radon/risk_assessment.html) August 25, 2004