

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

# RADON



### *"You can't see radon. 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>
- Radon is the leading cause of cancer among nonsmokers.<sup>3</sup>

### What is it?

Radon is a radioactive gas that cannot be seen or smelled and is found naturally around the country. When you breathe air containing radon, cells in your airway may be damaged, 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.

All houses have some radon, but houses next to each other can have very different radon levels, so the only way to determine your particular risk is to test your home. Radon is measured in "picoCuries per liter of air," abbreviated "pCi/L." This unit of measure 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.

There is no known "safe" level of radon exposure. If your home has a radon level of 4 pCi/L or more, you should take action to lower this level.

continued on back

U.S. Department of Housing and Urban Development



Office of Lead Hazard Control and Healthy Homes



## RADON

### What can you do?

#### **Test your Home!**

About 1 out of every 15 homes has a radon problem. 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: shortterm tests take 2 to 90 days, while long-term tests take more than 90 days but provide a better estimate of your annual average radon level.

In real estate transactions, short-term tests are more common because of the time limitations. (Consult EPA's Home Buyer's and Seller's Guide for more on radon testing in real estate transactions.

#### 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.

You can also hire a professional tester to do the test for you. Contact your state's radon office for a list of qualified testers. (www.epa. gov/iaq/whereyoulive.html)

#### Other helpful steps:

- 1. Stop smoking and discourage smoking in your home. Smoking significantly 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 strategy to reduce radon.
- 3. Seal cracks in floors and walls with plaster, caulk, or other materials designed for this purpose. 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.
- 4. Ask about radon resistant construction techniques if you are buying a new home. 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/healthyhomes 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

#### **Other Resources**

State Radon Contacts www.epa.gov/iag

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

American Lung Association 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 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 August 25, 2004

3U.S. Environmental Protection Agency "Indoor Air-Radon"www.epa.gov/iaq/radon/ index.html August 4, 2008