

# Radon Gas

## IS YOUR HOME SAFE?

Many Maryland residents are concerned about elevated levels of radon in their community. They are testing their homes for this potentially harmful gas.

## WHAT IS RADON?

Radon is a radioactive gas. You cannot see, smell, or taste it. Radon occurs naturally in all soils. In outdoor air, radon gas is diluted to low levels. When radon gas seeps into homes, it can build up to potentially dangerous levels.

## IS RADON A HEALTH HAZARD?

Yes. Scientists estimate that 7,000 to 14,000 lung cancer deaths a year in the United States may be caused by radon gas. This would make radon the second leading cause of lung cancer in the United States.

Radon is one part of a long chain of radioactive decay. As radon decays, its byproducts may get trapped in your lungs and release radiation. There is scientific evidence that this radiation can damage lung tissue.

This lung tissue damage can eventually lead to lung cancer. The higher your radon level, and the longer you are exposed to it, the greater your risk.

## IS RADON FOUND IN MARYLAND?

Yes. Homeowners in every county and Baltimore city have reported elevated levels of radon. We encourage you to test your home for radon. **The only way to know for sure whether your home has a radon problem is to test for radon now.**

Some Maryland homes have radon levels higher than 200 pico-curies per liter (pCi/l) of air (pico-curies per liter is a measure of radiation). These levels are 50 times higher than the action guidelines set by the U.S. Environmental Protection Agency. By spending your lifetime in a house with radon levels of 10 pCi/l you have a lung cancer risk similar to smoking nearly a pack of cigarettes a day.

## HOW DOES RADON ENTER MY HOME?

Radon can enter your home through cracks in your home's foundation, dirt floors, pores in block walls, floor drains, and sumps. While radon usually enters through the basement or lower floors, it also circulates throughout your entire house. Radon levels can vary a great deal, even in the same neighborhood. Mostly, radon levels depend on how easy it is for the radon to get into your home and the amount of radon in the ground under your home.

## HOW DO I TEST MY HOME?

Because you cannot see radon, you must use a radon detector to measure the levels in your home. It is a simple do-it-yourself home test that comes with easy-to-follow instructions. When the test is completed, you send the detector back to the testing company, which analyzes it and sends you your results.

The two most common types of radon detectors are the charcoal detector and the alpha track detector.

Charcoal detectors cost as little as \$12 each and the alpha track detectors begin around \$25 each. These prices include the test itself and also the test results which will be sent to you.

**CHARCOAL DETECTOR: Recommended test period -- 2 to 7 days**

**Approximate Cost -- \$12 to \$25**

**ALPHA TRACK DETECTOR: Recommended Test Period -- 3 to 12 months**

**Approximate Cost: \$25 to \$50**

Either type of test can be used to measure radon levels in your home. The shorter test can provide useful screening information. Generally, however, the longer the test period, the more accurate the reading.

**HOW CAN I GET A RADON DETECTOR?**

Radon detectors are available in some local hardware stores. You can also call EPA's RADON HOTLINE (1-800-767-7236) for more information and a list of mail-order radon testing forms. Some companies offer a toll-free number and you can charge the detector on your credit card.

**WHAT IF I FIND A RADON PROBLEM?**

Many homeowners in Maryland have found permanent, cost-effective solutions to their radon problem. Some homeowners have successfully reduced their radon levels themselves for a little as \$100. More difficult problems are more expensive to fix and may require a contractor. Call the **RADON HOTLINE (1-800)-767-7236**. We can give you advice and send you information on how to reduce your radon level.

**FOR MORE INFORMATION**, call the **RADON HOTLINE, 1-800-767-7236**, and you will receive lists of radon testing and mitigation companies, along with these U.S. Environmental Protection Agency booklets:

*"A Citizen's Guide to Radon (Second Edition)"*

*"Consumer's Guide to Radon Reduction"*

*"Home Buyer's and Seller's Guide to Radon"*

**USEFUL EPA LINKS**

<http://www.epa.gov/iaq/radon/pubs/consguid.html>

<http://www.epa.gov/iaq/radon/nraw/index.html>

<http://www.epa.gov/iaq/radon/pubs/mitstds.html>

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