

Radon in Ohio Homes

Bureau of Radiation Protection 1-800-523-4439

Introduction

This fact sheet provides information from the Ohio Department of Health (ODH) on radon and how to protect your family's health. The U.S. Surgeon General, the U.S. Environmental Protection Agency (EPA) and ODH recommend every Ohio home be tested for radon.

Why is radon important?

Radon is a cancer-causing, naturally occurring, radioactive gas that you can't see, smell or taste. Its presence in your home can pose a danger to your family's health. Radon is the leading cause of lung cancer among nonsmokers. Radon is the second leading cause of lung cancer in America and claims about 23,000 lives annually.

EPA recommends: Test your home for radon-it's easy and inexpensive. Fix your home if radon level is 4 picoCurie/ liter (4pCi/l) of air or higher. Radon levels less than 4 pCi/l still pose a risk, and in many cases may be reduced.

What is radon?

Radon is a radioactive gas and part of the long decay chain for uranium-238 found in almost all rock, soil and water. Although radon is present throughout the environment, levels are present and concentrated indoors, increasing the risk of lung cancer. Testing a home is the only way to determine if levels are elevated.

Why is radon a common problem in Ohio homes?

Much of the soil in Ohio contains quantities of uranium and radium. These minerals continuously break down to release radon gas. Therefore, Ohio's geology provides an ongoing supply of radon.

How does radon enter a home?

Because it is a gas, radon is able to move through spaces in the soil or fill material and foundation around a home. Ohio homes tend to operate with a negative pressure below the foundation that creates a positive pressure that acts as a vacuum (suction) to pull soil gases, including radon, into the lower level of the structure. Radon can enter a home through the floor and walls - anywhere there is an opening between the home and the soil. Examples of such openings include dirt-floor crawl spaces, unsealed sumps, and cracks in slab-on-grade floors, utility penetrations and the tiny pore spaces in concrete block walls.

What happens after radon gets into the home?

creases

Once radon enters a home and becomes trapped, concentration increases radon levels inside, where exposure increases. It moves freely throughout the indoor air and people can breathe it into their lungs.

How can I find out if my home has a radon problem?

A radon test is the only way to find out how much radon is in your home. Performing a radon test on your own is easy, inexpensive and can be done privately. Test results from nearby homes cannot be relied upon to predict the radon level in another home. Likewise, previous test results may not reflect current and future radon levels for a home that has been remodeled, weatherized, had changes made to its heating, air conditioning or other ventilation systems, added exhaust fans or had major earth movement around them.

ODH recommends all Ohio homeowners test their homes for radon

How can I protect my family from radon?

A number of steps can be taken to lower the amount of radon in a home. A radon reduction (mitigation) system will reduce the annual average radon level to below 4 pCi/l.

Building a new home?

ODH recommends all new homes in Ohio be built to include radon-resistant construction features that minimize radon entry into the home and make future radon problems easier to fix, should they occur. It is more cost effective to include radon-resistant features when building a home rather than retrofitting an existing home. If elevated radon levels are found after you move in, radon-resistant features can be easily activated to become radon-reduction systems. Ask your builder if they use radon-resistant construction techniques.

All newly built homes in Ohio should be tested for radon after they are completed and occupied. Early detection of elevated radon levels can help protect the homeowner's financial interests if the radon problem is due to construction problems and also can allow the homeowner to take appropriate actions to lower the radon level and protect the health of their family.

Where can I get more information on radon?

Copies of EPA publications and other information on radon may be obtained at:

http://www.epa.gov/iaq/radon

Data and information on radon in Ohio can be found at the Ohio Radon Information System Web site at:

http://radon.utoledo.edu

With specific questions contact:

Ohio Department of Health Bureau of Radiation Protection Radon Program 246 N. High Street Columbus, OH 43215-0118

1-800-523-4439 or 614-644-2727