# RADON

#### *What are the Health and Safety Risks?*

**R**adon cannot be seen or smelled or tasted. But it may be a problem in homes and have a big impact on indoor air quality. Radon is estimated to cause many thousands of deaths each year. That’s because when a person breathes air containing radon, they increase their chances for lung cancer. In fact, the U. S. Surgeon General has warned that radon is the second leading cause of lung cancer in the United States today. Only smoking causes more lung cancer deaths. If a family member smokes and the home has high radon levels, their risk of lung cancer is especially high.

Families can reduce their risk of lung cancer by lowering the amount of radon in their home. The good news is that a radon problem can be fixed, and in most cases, radon levels can be reduced significantly. Nearly 1 out of every 15 homes in the U.S. is estimated to have an elevated radon level. Radon has been found in every state in the U.S. and any home can have a radon problem.

Radon comes from the natural (radioactive) breakdown of uranium in soil, rock and water and gets into the indoor air of a home that everyone breathes. Radon typically enters a building through cracks and holes in walls and floors adjacent or closest to the surround soil. Radon can be found all over the U.S. and it can get into any type of building — homes, offices, and schools — and result in a high indoor radon level. But a family is most likely to get the greatest exposure at home, where they spend most of their time.

#### ***Where Do Radon Risks Come From?***

##### Testing for Radon

Testing is the only way to know if a family is at risk from radon. The EPA and the Surgeon General recommend testing all homes at the lowest livable level for radon. EPA also recommends testing in schools. It’s easy to find out if a home has high levels of radon. Families can do a radon test on their own or they can hire a professional. There are two main types of radon tests that are do-it-yourself:

* A long-term test lasts 3 months to a year. These tests are more likely to give a home’s year round average radon level. Radon levels vary throughout the year. Longer lasting tests are recommended.
* A short-term test lasts 2-4 days. This is the quickest way to check a home.

A family can purchase a radon kit in a hardware store, a discount store or online. Testing does not require any protective equipment. Testing methods make a significant impact on the results of the test. Families should be advised to be cautious to read all directions and label the test completely as described on the package, and to avoid moving the test kit around after it is originally placed in a room.

##### Understanding Radon Test Results

##### The amount of radon in the air is measured in “picocuries per liter of air” or “pCi/L”. The average indoor radon level is about 1.3 pCi/L. The EPA and the U.S. Surgeon General recommend a radon mitigation system if the indoor radon level is 4 pCi/L or higher. Families may also consider taking action even if the level is between 2 to 4 pCi/L.



**What can you do to help the families**

**and communities you serve?**

*Actions for Living in a Healthy Home*

Family Health and Safety

It is not possible to get rid of the uranium or soil that is causing the radon problem in a home, but there are other things that families can do. The goal is to reduce the radon levels in the home by stopping it from entering. The most important points to communicate to a family is that they need to be informed and educated about the dangers of radon, how to test homes, and remedial measures available to them when radon levels are too high.

##### A Radon Problem Can Be Fixed

##### Radon reduction systems work and they are not too costly. Installing a radon mitigation system will help “mitigate” or reduce radon indoors. Some radon reduction systems can reduce radon levels in a home by up to 99%. Even very high levels can be reduced to acceptable levels with an appropriate installation.

The most common mitigation system is a pipe that goes from under the lowest floor - basement or first floor - of the home and continues straight through the roof. For higher radon levels, a motorized fan is attached to the pipe (often in the attic or basement) to help remove the radon gas to the outdoors. The EPA recommends that a homeowner have a qualified radon mitigation company install the mitigation system. There is help available to install these systems by contacting a state radon office for qualified radon mitigation companies in the area.

##### Fixing a Radon Problem with a Mitigation System

##### C:\Users\knappja\Desktop\goldschmidt backup\Documents\Radon\Radon7.jpgThere are several proven methods to reduce radon in a home, but the one primarily used is a vent pipe system and fan, which pulls radon from beneath the house and vents it to the outside. This system does not typically require major renovations to a house, as it can often be placed in closets or between rooms. Sealing foundation cracks and other openings is often completed with the installation of the vent pipe to make the mitigation system more effective and cost-efficient.

##### A licensed radon mitigation specialist can recommend what system is best for a home. Homeowners should check with their state health department website for more information on how to find certified radon mitigation contractors. Retesting a home after a radon mitigation system has been installed is always recommended to verify the efficiency of the work completed and to make sure the radon level has been reduced to less than 4 pCi/L.