Basic Radon Facts

Utah Indoor Radon Program

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What is radon?

Radon is a naturally occurring, invisible, odorless gas that comes from deposits of uranium in soil, rock and water. It is dispersed in outdoor air, but when concentrated in buildings, can be harmful, especially at elevated levels. Radon is a radioactive decay product of radium, which is itself a decay product of uranium. Uranium and radium are both common elements in soil.

Where is radon found?

The primary source of high levels of radon in homes is the surrounding soil. Radon has been found in elevated levels in homes in every state. The Utah Department of Environmental Quality estimates that 30 percent of homes in Utah have elevated levels of radon.

How does radon get into my house?

Warm air rises. When this happens in your home, it creates a vacuum in the lower areas of the house. Nature hates a vacuum, so something must rush in to fill it. In the case of your home, air seeps in from the soil around and under the house, and some air is sucked in through openings (cracks, doors, windows) on the lower levels. Radon gas enters through cracks in the foundation floor or walls, hollow-block walls and openings around floor drains, pipes and sump pumps.

What are the health effects of radon?

Exposure to radon is the second leading cause of lung cancer in the United States. Radon can be inhaled into the lungs, where it undergoes radioactive decay. As it decays, radon releases tiny bursts of energy called alpha particles, which can harm sensitive lung tissue by damaging the DNA. This damaged DNA can lead to lung cancer.

How is radon measured?

Radon is measured in picoCurries per liter of air (pCi/L), a measurement of radioactivity. The U.S. EPA and the Centers for Disease Control and Prevention recommend that homes with radon levels 4 pCi/L, or greater, be fixed.

How do I find out if my house has elevated levels of radon?

Radon test kits that meet EPA guidelines are available at some local hardware and home improvement stores, the American Lung Association of Utah and the Utah Safety Council. Many are priced under $25.00. Testing your home for radon is as simple as opening a package, placing a radon detector in a designated area and, after the prescribed number of days, sealing the detector back in the package and mailing it to a lab. Information on testing your home for radon and how to get a test kit is also available by calling 1-800-458-0145.

The cost of making repairs to reduce radon depends on how your home was built and other factors. Most homes can be fixed for about the same cost as other common home repairs, like painting or having a new hot water heater installed. The average cost for a contractor to lower radon levels in a home is about $1,200, although this can range from $500 to about $2,500.

How can I fix my house if it has elevated levels of radon?

A variety of methods can be used to reduce radon in homes. Sealing cracks and other openings in the foundation is a basic part of most approaches to radon reduction. EPA does not recommend the use of sealing and caulking alone to reduce radon because, by itself, sealing has not been shown to lower radon levels significantly or consistently. In most cases, systems with pipes and fans are used to reduce radon. Such systems are called “sub-slab depressurization.” These systems prevent radon gas from entering the home from below the concrete floor and the foundation. Similar systems can also be installed in homes with crawl spaces. Radon reduction contractors may use other methods that may also work in your home, depending on its design and other factors. Look in the Yellow Pages or call the Utah radon hotline at 1-800-458-0145 to locate radon mitigators in your area.