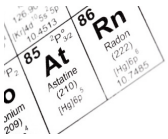
Radon & YOU:

What you need to know to protect you and your family

AMERICAN LUNG ASSOCIATION® IN IOWA

IOWA™ Health and Human Services

What is radon?



Radon is a colorless, odorless, tasteless, radioactive gas that is produced from the decay of naturally occurring uranium in the soil. Risk occurs when this gas enters buildings and the decay products are breathed in. These decay products can damage the lungs and cause lung cancer.

Where is radon found?

Radon can be found anywhere. Outdoor levels are usually very low, but indoor levels can be very high. It doesn't matter where you live, how old your home is, or what type of foundation it has—the only way to know the level of radon gas in a home is to perform a test.

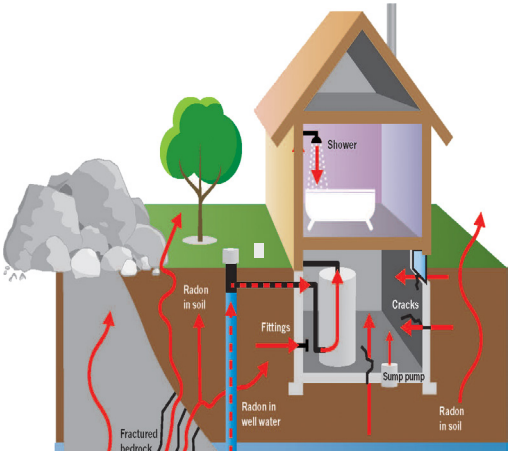
Are you at risk?

Everyone is at risk for developing lung cancer from exposure to radon gas. However, smokers who are also exposed to elevated levels of radon have an especially high risk of developing lung cancer.

"Radon is the leading cause of environmental lung cancer death in Iowa."

Bill Field, M.S., Ph.D
Cancer Epidemiologist &
International Radon Expert

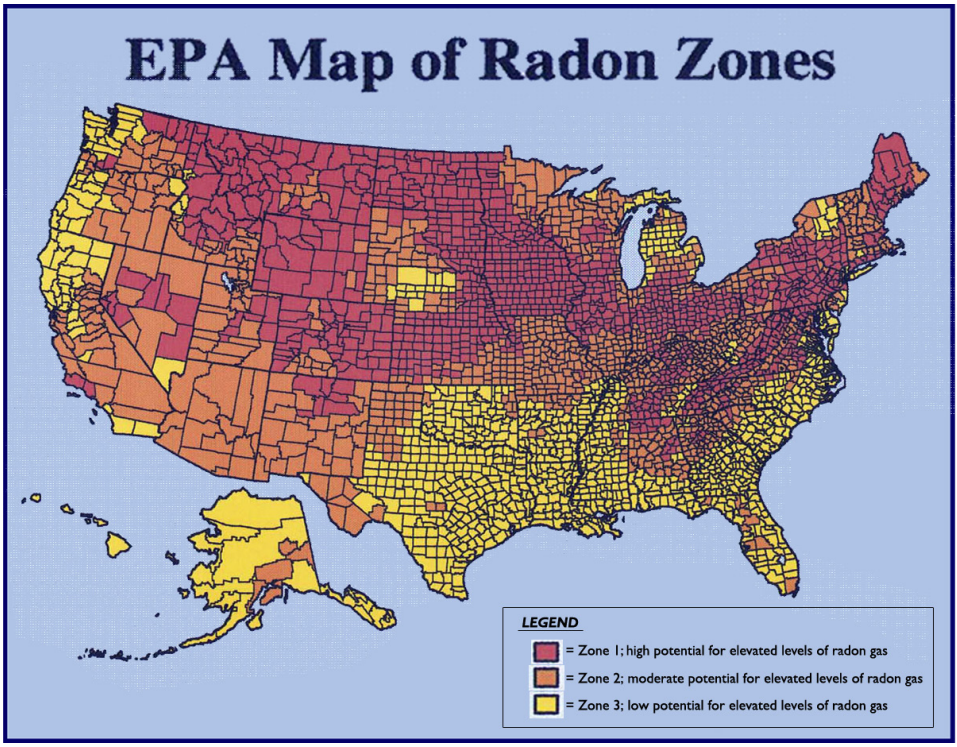
How does radon get into your home?



Radon gas rises up through the soil and is pulled into a house or building. It enters a home or building through cracks in the foundation, construction joints, gaps around service pipes or wires, and sump pits. It doesn't matter what type of foundation your home has—basement, crawl space, slab—your home could have high levels of radon.

What is your risk as an Iowa resident?

- An estimated **400** deaths per year in Iowa are caused by radon-induced lung cancer. That is approximately the same number of Iowans who die in traffic accidents each year. (United States Environmental Protection Agency, US EPA, and Iowa Department of Transportation)
- US EPA surveys in Iowa have found that **7 in 10 homes** contain radon concentrations above the US EPA's radon action level of 4 picoCuries/Liter (pCi/L).
- Iowa **leads** the nation in the percent of homes over the 4 pCi/L as well as percent of homes over 20 pCi/L.
- The average indoor radon concentration in Iowa is more than **six times** the national average.



All of Iowa is located in Zone 1 (red) indicating Iowans have a very high potential for elevated levels of radon gas.

How do I test for radon?

Everyone should test. Testing is easy and inexpensive to perform. It is suggested to test every 2 years or after renovating your home. The only way to know if your home has elevated radon concentrations is to test. Short-term tests can be done in 2-90 days, and long-term tests can be done in 90 days-1 year.

Where to get a test kit:

- Call the Iowa Radon Hotline at **1.800.383.5992**
- Contact your county public health department
- Order online at **www.Lung.org/Radon**

Be sure to follow the directions included in the test kit. If you do not wish to perform your own test, the Iowa Radon Hotline can provide a list of licensed radon measurement professionals. You may contact the hotline at **1.800.383.5992** or visit **www.hhs.iowa.gov** and type radon in the search box**.** A list and map of professionals can be found under the Test section.

What do my results mean?

The results from radon testing will be provided in picoCuries per liter (pCi/L). The USEPA has set an action level of **4.0 pCi/L**. If the building's level is equal to or above 4.0 radon reduction methods such as a mitigation system is recommended to reduce the radon level.

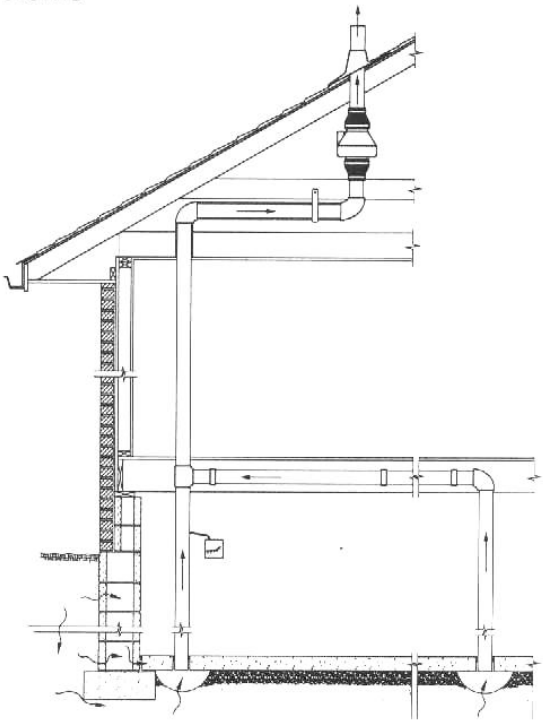
Results in pCi/L	Action needed
Below 2.0	Consider performing a long-term test. If not, re-test in two years.
Between 2.0-4.0	Consider installing a mitigation system as levels in this range still pose a risk.
Between 4.0-8.0	Follow up with another short-term test. If the average of the two tests is greater than 4.0 it is highly recommended that a mitigation system be installed to reduce levels.
Greater than 8.0	Follow up with another short-term test. If the two tests are similar, it is highly recommended that a mitigation system be installed to reduce levels.

How do I take care of a radon problem?

Performing work to lower indoor radon levels is called radon mitigation. Radon mitigation is the process of installing a vent pipe and fan system within a home to reduce indoor radon levels. There are many ways to mitigate radon. The most common and effective is a vent pipe and fan system that draws air from underneath the foundation and vents it outside the home or building. This radon mitigation system removes radon from under the foundation and vents it above the roof line of the house so that it does not enter the home.

The type and cost of a mitigation system depends on:

- Size of house
- House design
- Foundation type
- Sub-slab material



The cost of a radon mitigation system installed by a certified Iowa contractor is comparable to the price of other home improvements or maintenance; ranging from $800 to $2,500, depending on the characteristics of the home and choice of radon reduction methods.

Nationwide, the average cost of a radon reduction system is about $1,200.

The Iowa Radon Hotline can provide a list of licensed radon mitigation professionals. Contact them at **1.800.383.5992** or visit **www.hhs.iowa.gov** and type Radon in the search box. A list and map of professionals can be found under the Fix section at the bottom of the main page.

Are you building a new home?

New homes can be built with a radon reduction system already installed. This is called Radon Resistant New Construction (RRNC). The most common RRNC method is to install a passive radon reduction system. Typically, passive radon reduction systems are very similar to mitigation systems described within this document, but do not have a fan installed. Adding radon-resistant features to a new home while it is under construction is generally much cheaper than installing a mitigation system after the home is built.

Just because a house is built radon resistant does not mean radon levels could not become elevated. **It is suggested that a test be performed every two years to ensure concentrations are maintained at a low level.** If the passive RRNC features do not reduce the radon concentrations below 4 pCi/L, a fan can easily be added to the existing system at relatively inexpensive cost. For more information on RRNC please visit: https://www.epa.gov/radon/radon-resistant-construction-basics-and-techniques

For More Information on Radon, Please Contact the:

Iowa Radon Hotline
1.800.383.5992

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Iowa Radon Websites:

www.hhs.iowa.gov, type radon in the search box
www.lung.org/radon
www.breathingeasier.info