

# Radon

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Radon is a naturally occurring gas that is not detectable by any human senses. It occurs naturally in the environment from the breakdown of uranium in the soil. The national indoor average annual concentration of radon in the U.S. is 1.3 pCi/l. Iowa has one of the highest averages for radon in the nation with the Guthrie County area averaging 9.2 pCi/l. Any reading over 4 pCi/l is considered to be high and in the EPA's threshold for action.

Radon has demonstrated the same human carcinogenic characteristics as mustard gas, tobacco smoke, asbestos, benzene, and vinyl chloride. The alpha particles from the radon decay products can damage living tissue with lung cancer being the best-documented health effect of radon. The EPA has the lung cancer risk at 4pCi/l to be 7:1000 for non-smokers and 62:1000 for smokers. In 1995 157,000 people died in the U.S. from lung cancer caused by the effects of radon.

Radon generally enters the house from the soil under the basement floors and sidewalls. It can follow the plumbing or filter through cracks in the floor and walls. But it is the pressure differences caused by heating your house and running exhaust fans that pulls it into your living area. Each home is different and the only way to properly characterize a building's radon potential is to follow recognized testing procedures.

Our office has short-term radon test kits for \$6.00 (plus \$2.00 if we mail it). If your first test shows a reading above 4 pCi/l then a follow up test is needed to be sure the home has a level that might need mitigating.

Mitigating is the word used when addressing a radon problem. It is cheaper and easier to install a mitigating system when the house is being built than after but a lot of homes were built before radon was discovered to be a problem. Our office has information on both home radon testing and mitigating if you need it.

Guthrie County has adopted mandatory passive radon mitigation on ALL new construction. Audubon, Cass and Adair counties have also adopted these same rules. If a new home, office, or major home addition is done, then this system must be installed. All area contractors are aware of this County requirement but should be reminded to install it. The cost is minimal, usually less than \$500. In comparison, to fix a radon problem in an existing home, you are often looking at up to several thousand dollars. The rules for this new building installation are in the index under Chapter VII Radon Control Methods.

For those of you wanting specific information on radon it is suggested you go to the following:

<http://www.idph.iowa.gov/> (Click on the A-Z tab and scroll to Radon)

[www.radon.com](http://www.radon.com)

[www.radon.org](http://www.radon.org)

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

Also, if you are looking for the longer-term radon test kits, various home improvement stores would be a good source for more expensive, long-term testing kits or you can call a radon mitigation company for assistance.