



## Polk County Health Department

# RADON Fact Sheet

Radon is a naturally occurring radioactive gas that is the leading cause of lung cancer in the United States among nonsmokers. As many as 21,000 lung cancer deaths that occur in the U.S. each year may be a result of radon exposure.

### What is radon?

Radon is a radioactive gas that occurs naturally during the decay of thorium and uranium, common elements found in rock, soil, and water. Radon is colorless, odorless, and tasteless, making it undetectable to human senses.

### Where is radon found?

The location of greatest exposure to radon is in the home. While uranium is the source of radon, factors that influence its concentration in indoor air include radon in soil, building materials, and groundwater. Air pressure differences between soil and house as well as foundation opening cause radon gas to flow towards the foundation of a home.

Radon can enter a home from the soil via cracks in floors and walls, floor drains, sump pumps, and construction joints. It is usually more concentrated in basements and ground floor rooms that have contact with the soil. Domestic water contaminated with radon can also contribute to indoor radon levels.

Three out of four homes in Iowa probably have high radon levels.

### Why does radon cause lung cancer?

The primary route of radon exposure is through inhalation. When the radiation from radon enters the lungs it can cause damage to the DNA in cells and may reduce the cells ability to repair itself. Damage to the DNA of cells can cause varying forms of mutation. When these mutated cells continue to replicate there is a higher risk of developing cancer.

### How do I know if there is radon in my house?

Test kits are available at most hardware and department stores. They are also available at the Polk County Health Department for \$6. When testing, be sure to follow directions on placement and time period for testing.

### How do I reduce radon levels?

Reducing radon levels involves repairing or altering a building or building design. Exact system design will vary from house to house dependent upon foundation type and building materials however most will consist of PVC pipes that will pull air from under the foundation and re-route it out through the roof, where it can dissipate into the air.

### Resources

American Lung Association of the Upper Midwest, [www.lungum.org](http://www.lungum.org)

United States Environmental Protection Agency, [www.epa.gov/iaq/radon](http://www.epa.gov/iaq/radon)

World Health Organization, [www.who.int/ionizing\\_radiation/env/radon/en](http://www.who.int/ionizing_radiation/env/radon/en)

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