Test for Radon this Winter

Radon is an odorless, colorless, tasteless gas that causes no immediate health symptoms, but long-term exposures may cause lung cancer. Radon comes from the breakdown of uranium in soil, and enters a home through cracks and other holes in a home’s foundation.

In Iowa, it is estimated 7 out of 10 homes have elevated radon levels. The Iowa Radon Survey has indicated Iowa has the largest percentage of homes above the Environmental Protection Agency (EPA) acceptable radon level.

The heating season during fall and winter months is the best time to test for radon. Simple test kits can reveal the amount of radon in any building. Short-term and long-term test kits are available at many hardware stores and at Linn County Public Health. The cost for do-it-yourself test kits is typically $5-20 per kit. The EPA recommends testing your home every two years.

Buildings with high levels can usually be fixed with simple and affordable venting techniques. Buildings can also be constructed using radon resistant construction techniques. In Linn County, new homes built in unincorporated areas are required to be constructed with radon resistant features.

For more information on radon, visit the Linn County Healthy Homes Radon webpage.

Radon Educational Events

For two years, Linn County Public Health has partnered with Mercy Hall-Perrine Cancer Center to host an annual radon education event and provide radon test kits at low and no cost to the audience. The events have targeted the general public and medical professionals. Hundreds of people have attended and listened to radon experts discuss the epidemiological evidence that links radon to lung cancer and hear the stories and journey of lung cancer survivors.

Linn County Public Health is available to provide education about radon to group or organizations upon request. Funding from the Iowa Cancer Consortium has made these educational events possible.
Radon Initiative Partnership in Local Schools (RIPLS)

In 2013, Linn County Public Health Healthy Homes Branch kicked off the Radon Initiative Partnership in Schools or RIPLS program. This program was based on the growing demand and inquiries from school districts about radon testing and mitigation. Children spend approximately one-third of their time in school. Schools buildings just like any other building can have elevated levels of radon that expose children and staff during the course of a school day. The United States Environmental Protection Agency (EPA) recommends testing schools and mitigate if confirmation sampling shows elevated radon levels of 4.0 pCi/L (picocuries per liter) or more.

The RIPLS programs was designed to be sustainable by providing school facility staff the tools to include radon testing as part of their routine maintenance plan, as it is recommended to test for radon in schools every five years. The program includes formal and informal training, example sampling plans and reports, quality assurance and control plans, and technical assistance when needed by licensed radon staff and contractors. Through support of the Linn County Board of Health, public health committed to provide schools with radon test kits for the initial radon testing of each school. In 2013, 228 schools rooms were tested. This fiscal year we have tested over 600 rooms for radon.

Linn County has 19 school districts, 11 public and 8 private. 45% of the public school districts and 25% of the private districts have participated in the RIPLS program. As part of the program, schools educate students and staff about radon in a variety of means such as automated phone calls, newsletters, and websites.

Identifying and lowering radon levels in schools could significantly reduce students’, teachers’, and staff’s exposure to radon. In addition, this offers a unique opportunity for positive health messaging in schools to be carried home and encourage parents, teachers, staff, and volunteers to test their homes.

Since the RIPLS program started in 2013, LCPH garnered attention at a state and regional level. The Healthy Homes Branch was awarded an EPA Region VII Radon Leader Award for modeling excellence in promoting radon awareness, advocacy and local policy. Healthy Homes staff were invited to speak at a joint IDPH and IDOE meeting for school staff about the program and the program was featured at the 2014 Iowa Environmental Health Association Fall Conference.

Our mission: To prevent disease and injuries, promote healthy living, protect the environment, and ensure public health preparedness.
Radon Screening & Radon Resistant New Construction Practices in Linn County

In 2013, Linn County Public Health assessed 97 new homes in Linn County to measure radon levels in homes with active, passive or no radon removal systems, thus identifying the use of Radon Resistant New Construction (RRNC) practices. The presence of a sealed or unsealed sump pit was also identified. Over half (57%) of the homes surveyed had no radon removal system, 39% had a passive system, and 7% had an active radon system. Over half of homes (54%) had an unsealed sump pit. The remainder of homes (46%) either had a sealed pit of no sump pit.

LCPH compared the average radon levels by type of radon system and sump pit. Radon levels for 96 of the homes were included in the radon test result graph below.

The results of this assessment show:

- Homes with an unsealed sump pit are more likely to have higher radon levels than homes with a sealed sump pit.
- Homes without a radon removal system are more likely to have higher radon levels than homes with a passive or active radon system.
- The majority of homes in Linn County do not have radon removal systems.
- More homes are likely to have an unsealed sump pit instead of a sealed or no sump pit.

For the full report, visit the [Linn County Healthy Homes](#) webpage. Funding for this project was provided by the Iowa Cancer Consortium.

Our vision: Building a Healthier Linn County
Radon and Lung Cancer

Radon is the leading cause of lung cancer among nonsmokers and the second leading cause of lung cancer overall. The entire state of Iowa is considered high risk for radon gas in homes. As seen in the graphs below, Linn County and Iowa have greater incidence of lung cancer than other areas of the United States. The mortality rate in Linn County is on average greater than Iowa and the United States. These graphs represent all cases of lung cancer, not just radon related cases. For more information on lung cancer, see: The Health of Linn County, IA: A County-wide Assessment of Health Status and Health Risks

Age-Adjusted Lung Cancer Incidence, Linn County, 2002-2011

Age-Adjusted Lung Cancer Mortality, Linn County, 2002-2011