

Radon in Boone County, 2000-2004



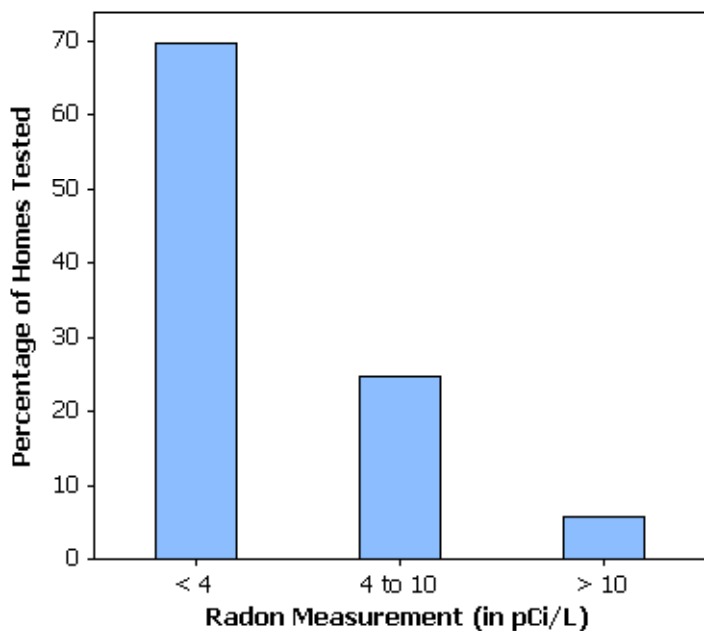
What is radon?

- Radon is a naturally occurring radioactive soil gas that is colorless, odorless, and tasteless.
- Radon can be found outside and inside; typically in homes, schools, and office buildings, entering through cracks and loosely sealed openings in the basement, foundation, or other areas.
- Radon levels are measured by units of radioactivity per volume of air called picocuries per liter (pCi/L).
- The Environmental Protection Agency (EPA) recommends fixing your home if the radon level is 4 pCi/L or higher.

What are the consequences of exposure to radon?

- Radon breaks down into tiny particles that get trapped in the lungs. As it decays, the particles release energy causing damage to lung tissue over time.
- Radon is the second leading cause of lung cancer, following cigarette smoking.
- The combination of radon attached to secondhand smoke particles greatly increases the likelihood of lung cancer.
- Living in a home with a radon level of 20 pCi/L is like smoking two packs of cigarettes per day.

Boone County Radon Levels



It is estimated that 30% of Boone County homes have high radon levels.

- Of 191 homes tested for radon, 30% had radon at or above the EPA action level. Most of these homes tested between 4 and 10 pCi/L and eleven had radon levels greater than 10, and ranging up to 82.8 pCi/L.
- The average radon level was 4.4 pCi/L, with a range of 0.4 to 82.8 pCi/L.
- Based on approximately 22,642 homes in Boone County, between 5,401 and 8,352 homes could potentially have radon levels above the EPA's recommended level.

How to test your home for radon

- Many local health departments and the Kentucky Radon Program provide free radon test kits.
- Local hardware supply stores sell radon test kits at a moderate cost.
- A certified mitigator can test for radon.

Northern KY Radon Coalition

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A project of the Clean Indoor Air Partnership, University of Kentucky College of Nursing

Radon measurements were collected in homes located in Boone ($n = 191$) county over a four year period from 2000 to 2004. The data are a subset from a larger study, *Radon, Tobacco Smoke, and Lung Cancer Incidence in Kentucky*, for which Gwendolyn Rinker of the University of Kentucky is the Principal Investigator.

Statistical summaries were provided by students enrolled in Introduction to Statistical Methods (Section 017, Spring 2009) at Northern Kentucky University and coordinated by Dr. Brooke Buckley