

RADON

Pennsylvania has one of the most serious radon problems in the United States. Radon is a naturally occurring radioactive gas that is odorless, tasteless and invisible. It is formed from the natural (radioactive) breakdown of uranium. First, uranium breaks down into radium, then radium breaks down into radon. Uranium is found in small amounts in most rocks and soil. It is used in nuclear power plants and nuclear weapons. Radium is used as a radiation source for treating cancers.

HOW DOES RADON GET INTO MY BODY?

You breathe in radon in the air. Radon can enter homes and buildings through cracks and holes in foundations and concrete floors. People may breathe it in if they work at factories that process uranium, when using phosphate fertilizers, or at uranium mines. You may also ingest radon from drinking contaminated surface water or groundwater.



WHAT CAN RADON DO TO ME?

There are no immediate symptoms following exposure to radon. Long-term exposure can cause lung cancer. The International Agency for Research on Cancer and National Toxicology Program classify radon as a known human carcinogen. It is the leading cause of lung cancer among non-smokers, and smoking increases the chance of lung cancer from radon exposure. Chronic radon exposure may also cause other respiratory effects.

WHAT ARE THE ENVIRONMENTAL REGULATIONS FOR RADON?

The Environmental Protection Agency (EPA) has set a non-enforceable health-based guideline for radon in air inside homes of four picocuries per liter (pCi/L) of air. At or above this level, EPA and the Pennsylvania Department of Health recommend remediation. EPA recommends that all homes below the third floor, schools and daycares be tested for radon. Additionally, the Occupational Safety and Health Agency limits radon in workplace air to 100 pCi/L averaged over a 40-hour work week of seven consecutive days. For workers under age 18, the limit is three pCi/L.

The Pennsylvania Department of Environmental Protection <u>Radon Division¹</u> estimates that 40% of Pennsylvania homes have radon levels above EPA's action guideline of 4 pCi/L.

WHAT CAN I DO?

- Test your home for radon using an at-home kit. You can also find radon levels in homes in your zip code².
- If your home has radon above four pCi/L, have a DEP-certified contractor install a radon reduction system. Access DEP's list of certified contractors at 1-800-23-RADON or search their <u>Radon Services Directory³</u>.
- Ask if your child's school or daycare has been tested for radon.
- If building a new home, consider using radon-resistant building techniques recommended by EPA.
- Do not smoke or work to quit smoking.
- Visit a health care provider to discuss radon and monitor for signs of lung cancer.
- Follow recommended safety procedures in workplaces where you may be exposed to radon.

If you have any questions, contact us at <u>env.health.concern@pa.gov</u>.

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¹ <u>https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Pages/default.aspx</u>

². <u>http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Radon/RadonZip</u>

³ https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Certification/Pages/ServicesDirectory.aspx