## **Naturally Occurring Radon in Alaska**

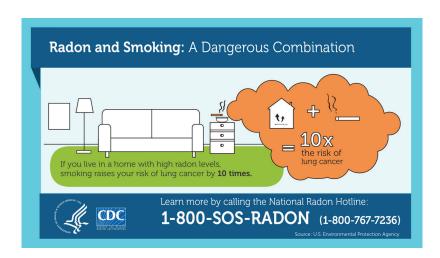
Alaska Division of Geological & Geophysical Surveys



Radon (Rn) is a naturally occurring radioactive gas released in rock, soil, and water from the natural decay of uranium. While levels in outdoor air pose a relatively low threat to human health, radon can accumulate to dangerous levels inside of buildings. You can't see, smell, or taste it, but an elevated radon level in your home may be affecting the health of your family.

#### Radon Health Risks

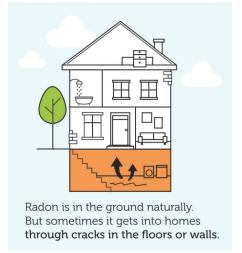
Exposure to radon is the second leading cause of lung cancer in the United States and the number one cause among non-smokers. The U.S. Environmental Protection Agency (EPA) estimates that radon causes more than 20,000 lung cancer deaths in the country each year. Only smoking causes more lung cancer deaths. If you smoke and your home has radon, your risk of lung cancer can be higher. In fact, the EPA and the U.S. Surgeon General urge all Americans to protect their health by testing their homes, schools, and other buildings for radon.



#### Can I prevent radon from entering my home?

Houses can be built to resist radon gas from seeping in. Simple building and venting techniques will reduce the chance of high radon levels building up in your new home. Designing and building your home to be radon-resistant is especially easy and affordable during construction. Be sure to talk to your builder about it.

In a pre-existing home, some radon problems may be fixed with easy solutions. Larger problems may require the help of a mitigation contractor. Solutions for addressing radon include sealing cracks and installing special pipes to draw radon out of your home.



# How does radon enter my home?

High levels of radon in homes usually come from the surrounding soil. Radon gas enters through cracks and openings—such as sump pump lids and plumbing features—on the lower levels of your home. Hot spots often include basements, first-floor rooms, and garages, but radon can be found anywhere in your house.





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# 1 out of 15 U.S. homes have high radon levels\*



\*According to the Centers for Disease Control and Prevention

#### **Alaska Radon Database**

One in 15 homes in the United States has elevated levels of radon. However, we do not know the statistics in Alaska. The Division of Geological & Geophysical Surveys (DGGS) and the University of Alaska Fairbanks' Cooperative Extension Service are creating a radon database to better understand radon potential and identify where elevated levels of radon exist in the state.

# All Alaskans are encouraged to contribute to the database. Previously collected and new test results are both helpful. Your information will be aggregated to ensure confidentiality.

You can fill out an Alaska Radon Database release form and questionnaire here: dggs.alaska.gov/download/ radon-questionnaire.pdf

### **Testing for radon**



Because we can't see, smell, or taste radon, it's easy to forget that it may be a problem in any home in Alaska. It's also important to remember that just because your neighbor's house does not have an elevated

level of radon does not mean that your house will have a low radon level.

The only way to know if this dangerous gas is collecting in your home is to test and confirm your home's level is under the EPA action level of 4 pico-Curies per liter (pCi/L).

You can test for radon with a short-term (typically 48–96 hours), or long-term test (up to a year). Tests conducted longer than 90 days are preferred. If the radon test results are needed quickly, the averaged results of two short-term tests (less than 90 days) can be used in deciding whether to mitigate.

The American Association of Radon Scientists and Technologists recommends homeowners retest every five years or after events that may change the airflow or structure of the house, such as significant earthquakes and renovations.

**Radon test kits are available** in hardware stores and other retail outlets, and for purchase online from the National Radon Program Services (<u>sosradon.org/purchase-kits</u>). Radon service providers will also conduct testing for you.

Contact the Alaska Radon Hotline at 1-800-478-8324 for more information on radon testing and mitigation.

Learn more online: <u>maps.dggs.alaska.gov/radon</u> or contact Jennifer Athey: <u>jennifer.athey@alaska.gov</u> | 907-451-5028 IC 82 | <u>doi.org/10.14509/30163</u>