



Radon Guidance and Resources

What is Radon?

- Radon is a gas that occurs naturally in the ground and some rocks.
- Radon is colorless, odorless, and invisible. It is impossible to tell if you have inhaled it.
- Radon can enter buildings through cracks and openings in foundations.
- Radon occurs at low concentrations in outside air but can accumulate to higher levels in buildings, especially in basements or ground-floor spaces. Most people experience their greatest exposure to radon in their homes.
- Long-term exposure to radon is the leading cause of lung cancer among nonsmokers.
- The Environmental Protection Agency (EPA) estimates that radon causes about 21,000 deaths per year.

What Makes Radon Dangerous?

- Radon is a radioactive gas. When you breathe in radon, the gas particles lodge in your lungs and then degrade after about a day or two. When a particle of radon degrades in your lungs, it releases radiation in the form of high-energy alpha particles that can damage your DNA. Long-term exposure to elevated radon levels—and the associated damage to your DNA—can potentially lead to lung cancer.
- Exposure to high radon levels compounds the negative health impacts of smoking. Smokers who are exposed to high levels of radon have risk of lung cancer that is 10 times higher than nonsmokers.

How to Test for Radon?

- Radon test kits are inexpensive and easy to use. Test kits are often available for low or no cost by local city or county health departments or state agencies.
- Frequently occupied living spaces that are close to ground level should be tested. EPA and the Surgeon General recommend testing all homes below the third floor for radon.

- All units at ground level should be tested. On the second floor (or the next level above the lowest habitable floor) and above, 10 percent of the units on each floor should be tested. Round up—at least one unit per floor should be tested even if there are fewer than 10 units.
- If two test results reveal an average level of **4 picocuries per liter (4pCi/L)** or greater, action should be taken to stop radon from entering the home.
- Consider hiring a Qualified Radon Professional certified by the National Radon Proficiency Program (NRPP) or the National Radon Safety Board (NRSB) to conduct the tests.



Picocuries per liter is a measure of radiation, defined as the number of radioactive particles decaying in a liter of air. The measure is named after scientist Marie Curie (1867–1934), a pioneer in the study of radioactivity.

Mitigating Radon in Homes

Construction of all soil-gas mitigation systems must be managed by a **Qualified Radon Professional** and carried out by **Qualified Contractors**. To be considered qualified, these professionals must be certified according to requirements from NRPP or NRSB.

- If one or more living spaces in your property has tested for elevated radon levels, action must be taken to perform repairs and reduce radon concentrations. Testing can be done by a property manager or a qualified radon professional, depending on state licensure requirements. (Note: In multifamily buildings, testing should be conducted under the supervision of a radon professional.)
- Radon mitigation systems are relatively simple and relatively low-cost. Typical systems involve sealing off all leaks at the ground level and using an exhaust system to collect radon under the building's foundation and direct it away from the home.
- Multifamily housing and apartment complexes sometimes need multiple systems installed.



Radon Guidance and Resources (continued)

Resources

To talk with an expert or local official about radon, or to order test kits, you can use the following available resources:

- Indoor Air Quality Information Clearinghouse (to find a state radon contact): <https://www.epa.gov/radon/epa-map-radon-zones-and-supplemental-information>
- National Radon Hotline (to order a radon test kit): 1-800-767-7236
- National Safety Council/EPA Radon Hotline (for questions about radon): 1-800-557-2366
- Radon Fix-It Hotline: 1-800-644-6999
- Spanish Language Radon Hotline: 1-800-725-8312

The following resources provide comprehensive information on radon, radon testing and mitigation guidance, DIY guidance, and links to further assistance:

- National Radon Program Services: <https://sosradon.org/>
- Northern Arizona University, Institute for Tribal Environmental Professionals: <https://www7.nau.edu/itep/main/Home/>
- EPA's radon website: <https://www.epa.gov/radon>
- For further information on radon safety, visit the HUD Healthy Homes radon page at: https://www.hud.gov/program_offices/healthy_homes/healthyhomes/radon
- ANSI/AARST standards (detailed testing and mitigation standards used by many professionals), view for free or purchase: <https://www.epa.gov/radon/radon-standards-practice>

