
Radon - General Fact Sheet

What is radon?

Radon is a colorless, odorless, and tasteless radioactive gas that is formed by the natural decay of uranium. Uranium is an element that is found in almost all soils, rock, and water in the United States. Once formed, radon gas goes up through the ground and can pollute the air you breathe in your home or building. The Surgeon General has warned that radon in indoor air is second only to smoking as the leading cause of lung cancer in the United States. 12% of all cancer deaths are linked to radon.

How does radon cause lung cancer?

Radon gas gives off radioactive particles that get trapped in your lungs when inhaled. As these particles spread in your lungs, they release energy that causes lung tissue damage that can lead to lung cancer. Not everyone exposed to radon will develop lung cancer. Depending on how much radon pollution is present, a person may get lung cancer after five to 25 years of contact with radon. Smokers are at higher risk of getting lung cancer caused by radon.

What symptoms will I have if I breathe in air polluted with radon?

There are no symptoms that happen right away when a person breathes in air polluted with radon. It does not cause shortness of breath, coughing, headaches or fever. Lung cancer is the only known risk associated with the inhalation of radon.

How does radon get into a home or building?

Radon from rock and soil under homes or buildings is the biggest source of pollution of indoor air. Radon gas rises through soil and enters a home or building through cracks and other openings. Once inside, the radon can become trapped and concentrated (collected in large amounts in one area). Radon is most concentrated in the lowest level of a home or building because of its nearness to the ground. Openings in your home or other building where radon can enter include:

- Cracks in floors and walls.
- Openings around sump pumps and drains.
- Joints in construction materials.
- Gaps around utility penetrations (pipes and wires).
- Gaps in suspended floors.
- Crawl spaces that open directly into a building.
- Cavities in walls.

Radon can also enter your home or building through the water supply, especially if the water source is a well. Radon in water is released into the air in your home when water is used for activities like washing dishes or showering. Radon is much more likely to enter the home through the soil.

How likely is it that a home or building will have a radon problem?

On average, one of every 15 homes can have a radon problem. Homes that are new or old, well sealed or drafty, or with or without basements can have a problem. Homes next to one another can have different radon levels. The only way to know if your home has an elevated radon level is to test for it. The Environmental Protection Agency (EPA) recommends testing all residences, including apartments, below the third floor.

How can I test my home for radon?

Do-it-yourself test kits are available at hardware stores, supermarkets, and other stores for prices starting from \$10 to \$45. Test kits usually include devices that are put into the area for a certain amount of time. Then, the device is sent to a laboratory for testing. You can also hire a qualified/state certified professional to test your home. Ohio Department of Health (ODH) provides a list of certified companies at <http://www.odh.ohio.gov/odhPrograms/dspc/radlic/Rlist.aspx> or you can call ODH's Radon Action Line at (614) 644-2727 or 1-800-523-4439.

What does it mean to have an “elevated” level of radon in indoor air?

The unit for measuring radon is picocuries (pCi). According to the EPA, any home that has 4 picocuries or higher of radon per liter of air (pCi/L) needs to have the problem fixed.

How do you fix a radon problem?

Ways to fix a radon problem include sealing floors and wall cracks or putting in pipes or fans that circulate the polluted air out of an area. You can also hire a qualified/state certified professional. The U.S. Department of Housing and Urban Development also has some federal or state programs that help limited income families with home improvement. If you live in an apartment building, your building owner may or may not be aware of any radon problems. You can speak with a lawyer if the building owner does not want to fix the problem by contacting a local or state legal office.

For more information contact:

Ohio Department of Health
www.odh.ohio.gov/odhPrograms/rp/envrad/indrad.aspx

U.S. Environmental Protection Agency
www.epa.gov/iaq/radon

Lake County General Health District
Air Pollution Control
(440) 350- 2543
www.lcghd.org

Sources:

United States Environmental Protection Agency
National Alliance for Hispanic Health

www.epa.gov/iaq/radon
www.hispanichealth.org

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