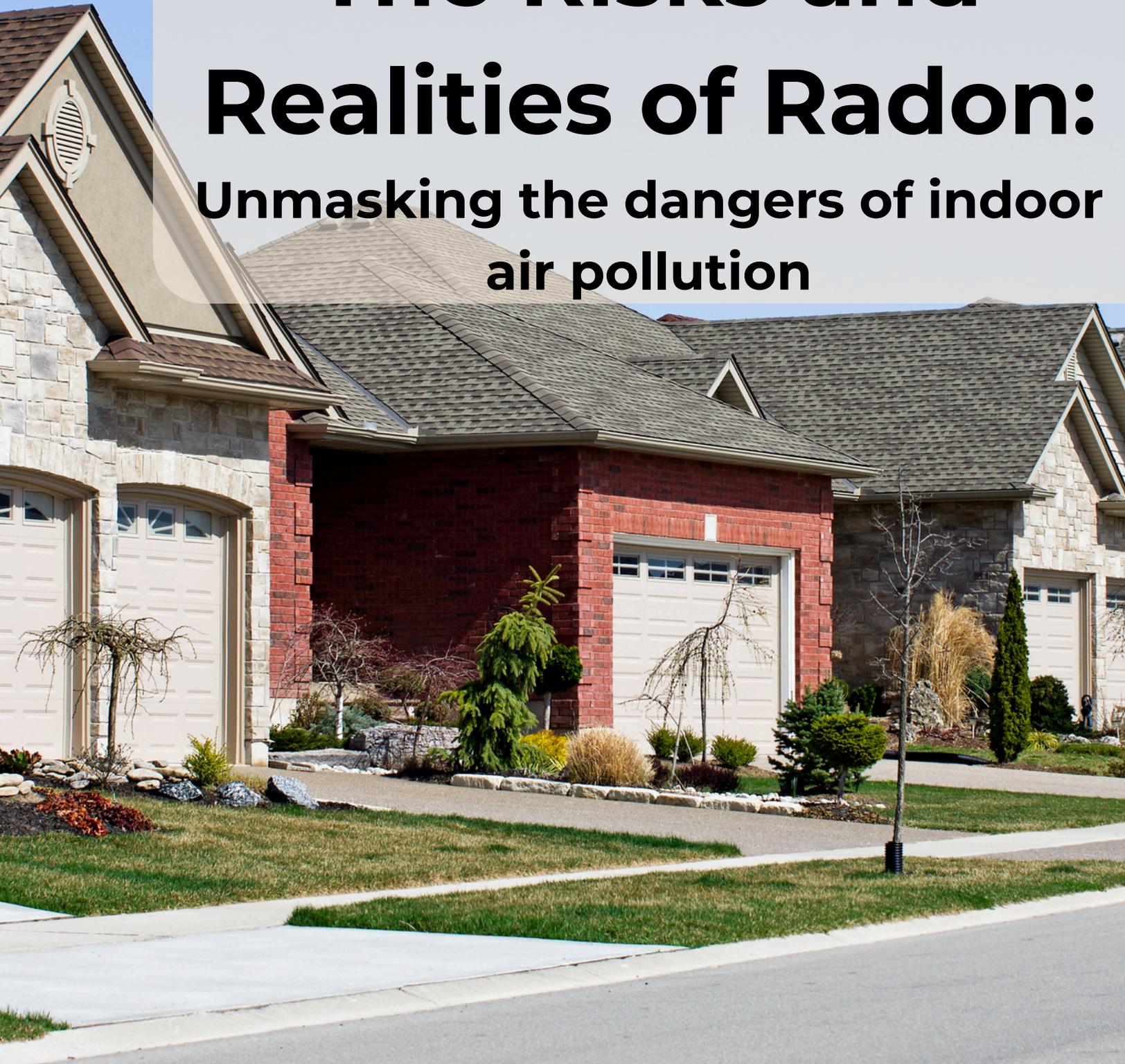


HEALTH HUB
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The Risks and Realities of Radon: Unmasking the dangers of indoor air pollution





The Risks and Realities of Radon: Unmasking the dangers of indoor air pollution

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HIDDEN HAZARD

Discover the silent dangers of radon, a naturally occurring gas that can compromise indoor air quality, and take steps to safeguard your health and home.

According to the Utah Department of Environmental Quality, 1 in 3 homes in Utah have elevated radon levels ([Utah Department of Environmental Quality, 2025](#)). Utah has a significantly elevated indoor radon concentration, with three and a half times the national average. This poses a lung cancer risk similar to that incurred by smoking nine cigarettes a day or having 225 X-rays each year ([KSL, 2025](#)). For people who don't smoke, radon is the number one cause of lung cancer. Overall, it's the second most common cause ([United States Environmental Protection Agency \[EPA\], 2025](#)). In Utah, an estimated 200-300 Utahns die annually from radon-induced lung cancer ([UtahRadon.org, n.d.](#)). The risk of developing lung cancer from radon exposure is even higher for smokers



because of the combined harmful effects of radon and cigarette smoke.

Radon is a natural radioactive gas present in the air, especially indoors. Utah is a major producer of uranium in the U.S., ranking as the third-largest, according to the Utah Geological Survey ([KSL, 2025](#)). Radon forms when uranium, found in nearly all rocks and soils, breaks down. Once radon escapes from the ground and enters the air, it continues to break down, creating tiny, radioactive particles. When you breathe these particles in, they can settle on the cells lining your airways. Over time, these particles can damage the DNA in these cells, which might lead to lung cancer ([World Health Organization \[WHO\], 2023](#)).



Outside, radon quickly spreads out and usually isn't a concern; its levels are generally very low. However, radon concentrations are much higher indoors, especially in places without much fresh air. The highest levels are often found in environments like mines, caves, and water treatment plants. In buildings like homes, schools, and offices, radon levels can vary significantly (WHO, 2023).

SALT LAKE COUNTY RADON GAS LEVELS

The following image of Salt Lake County indicates the percentage of homes by city with a radon test result at or above the World Health Organization's mitigation threshold. 57% of homes in Salt Lake County tested at or above the mitigation threshold. The average radon level in Salt Lake County has the equivalent lung cancer risk as smoking 10 cigarettes a day.

According to UtahRadon.org, 49% of the over 73,000 radon tests conducted overall in Utah had radon levels at or above the World Health Organization's threshold for mitigation.

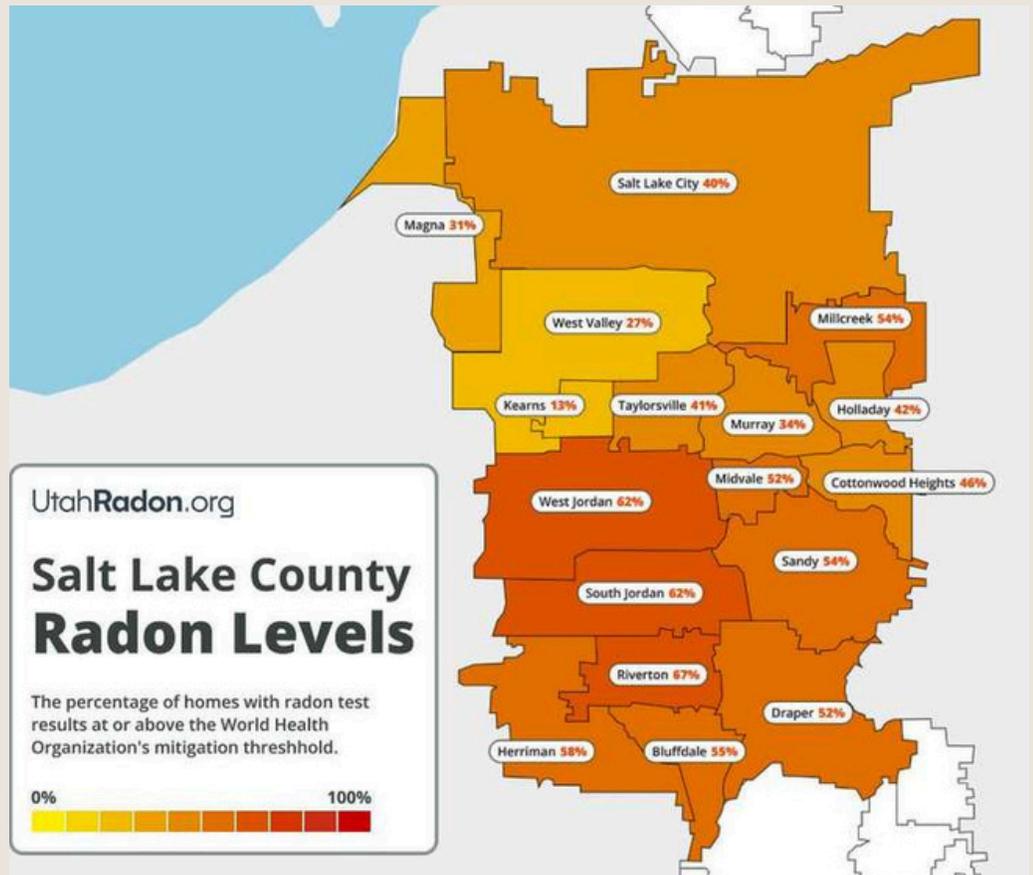


Image: UtahRadon.org



HOW RADON GAS ENTERS YOUR HOME

Radon typically enters buildings through openings in the foundation. These openings could be cracks in the floor or where a floor meets a wall, gaps around pipes or cables, small holes in hollow walls or spaces between walls, and sumps or drains (Centers for Disease Control and Prevention [CDC], 2024).

Radon levels are usually highest in basements, cellars, and other areas that are

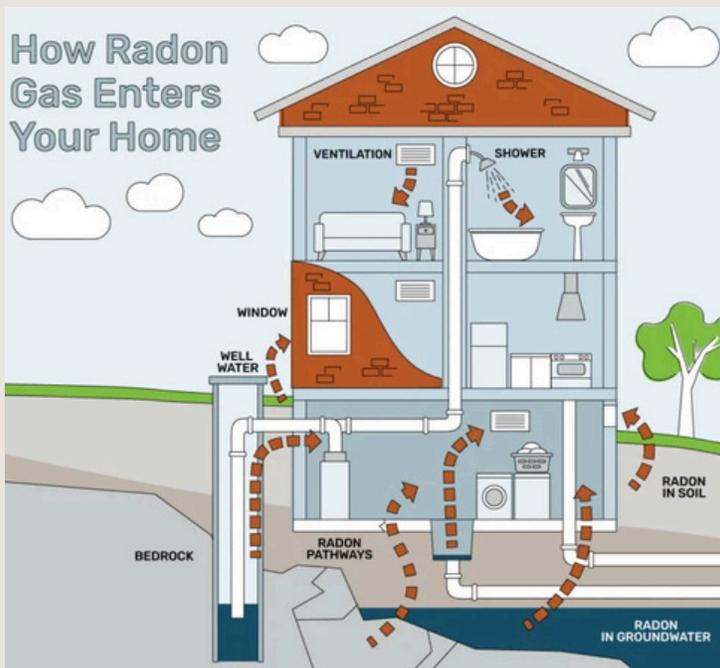


Image: Protect Environmental

in direct contact with the ground. However, significant amounts of radon can also be found on upper floors. Radon levels can change a lot, even between neighboring buildings, and even hourly or daily within the same building. Because of these constant changes, it's best to measure the average radon concentration over a longer period, ideally for at least three months, to get an accurate picture (WHO, 2023).

TESTING FOR RADON GAS

Radon cannot be detected by sight, smell, or taste, so testing is the only way to identify its presence (EPA, 2025). Testing for radon is crucial because it's the only way to know if your home has elevated levels of this invisible, odorless, and tasteless radioactive gas. The concentration of radon indoors can be easily determined using a small, passive detection device.

Any home can have a radon problem, regardless of its age, foundation type, or location. Effective, well-established, and economical methods are available to prevent radon from entering newly constructed buildings and to reduce its levels in existing ones.



Radon levels can vary by season. If your first test was during a warmer month, consider retesting during colder months when levels might be higher ([Protect Environmental, 2024](#)).



FREE RADON GAS TESTING

Depending on the test kit you're using, specific instructions will be listed on the device. The free radon test from [UtahRadon.org](#) is an activated charcoal radon test. This test is accurate and quick, making it ideal for preliminary testing. The device typically takes two to seven days to complete, and the building can remain occupied throughout the entire testing process.

During testing, it's recommended to avoid leaving exterior doors and windows open for long periods. You can use heating and cooling systems as normal, but it's best to avoid using vent or exhaust fans. Also, be aware of the weather forecast, as severe or unusual weather can temporarily alter radon levels.



Image: [UtahRadon.org](#)

This activated charcoal radon test should be placed in a central location within a room, between two and seven feet from the floor. It needs to be on the lowest habitable level of the building, whether that area is finished or unfinished. Ensure the test is at least three feet away from exterior doors and windows, and at least one foot away from walls. Do not use this test in crawl spaces or closets. Furthermore, avoid moving the test device once it has been placed for the duration of the testing period.



NEXT STEPS FOR HIGH RADON GAS LEVELS

If your tests show elevated radon levels, don't panic. Radon mitigation systems are effective and can significantly reduce indoor radon concentrations. These systems typically involve installing a fan and piping to draw radon from beneath your home and vent it safely outside. Most systems can be installed in less than a day. It's recommended to retest your home a few months after mitigation to ensure the system is working properly. To find qualified professionals or learn more about radon in your area, contact the Utah Department of Environmental Quality's Radon Program.

PREVENTING AND REDUCING RADON GAS

There are proven, long-lasting, and affordable ways to stop radon from getting into new buildings and to lower its levels in existing homes. When building new structures, especially in areas known for radon, it's smart to include radon prevention measures from the start.

Some areas have already added these protective measures into their building codes.

If your current home has high radon levels, here are some common and effective ways to reduce them:

- Improve under-floor ventilation: Increase airflow beneath the building.
- Install a radon sump system: This involves creating a collection point (sump) in your basement or under a concrete floor to pull radon out.
- Block radon's path: Prevent radon from moving from your basement into the main living areas.
- Seal cracks: Seal floors and walls to block entry points for radon.
- Boost ventilation: Improve the overall airflow in your building, which can also help with energy efficiency.

Even without fans, passive radon systems can cut indoor radon levels by more than half. If you add radon ventilation fans, you can reduce levels even further ([WHO, 2023](#)).

Protecting your health starts with knowledge and a free test kit. To get a free home radon gas test mailed to you, visit UtahRadon.org.