

What is Radon (Rn)?

Radon is a naturally occurring radioactive gas that you cannot see, smell or taste. It is produced during the radioactive decaying process of uranium (and occasionally Thorium) that has been in the earth's crust since the earth was formed. It is found in nearly all soils. Radon gas is almost everywhere. It is the main source of potentially harmful radiation to which the average American is subjected. Experts suggest that high levels of radon in the home can be harmful to one's health. Those experts recommend testing of the air and water in your home. If the level in the air is above 4 pCi/L* and you get your water from a private well system, you will want to have your water tested as well. Radon problems can be corrected by adding a radon mitigation system.

*** The concentration of radon in a home is measured in picocuries per liter. Some sources suggest that one pCi/L in air is equivalent to 10,000 pCi/L in water.**



Radon in Air (EPA recommended action level is 4 pCi/L)

The migration of radon up from the soil contributes to the largest percent of radon found in the average home. Radon gas moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Your home traps radon inside, where it can build up. Radon may be present in any home whether it is new or old, well-sealed or drafty, or a home with or without a basement.

Radon in Water

(There are NO universally accepted levels for recommended action. Levels vary significantly by state from as little as 2000 pCi/L to as many as 40,000 pCi/L)

Radioactive radon gas is found in the soil all around us. It is soluble in water, therefore, any groundwater may have radon. In homes with private wells, radon enters the home through the water supply and it escapes from the water when the water is flushed, heated, sprayed in showers, dishwashers and washing machines. Radon in water can raise the radon concentration in the air to higher than recommended levels. Breathing that air over long periods of time can increase is believed to increase the risk of lung cancer.

Radon Health Risk Information

Studies indicate that drinking water that contains radon is not believed to cause a significant health risk. However, the higher the level in water the more likely it is that some will escape the water and enter the air. The EPA does suggest that high levels of radon gas in the air increase the risk of lung cancer. The more elevated a home's radon level, the greater the health risk to you and your family. The EPA says that radon is the second leading cause of lung cancer. Additionally, they suggest that radon is the leading cause of lung cancer among those who never have smoked. The specific vary per year, but are approximately as follows in recent years:

- 200, 000 lung cancer cases in the US per year.
- About 170,000 are attributed to smoking only and about 20,000 from radon.
- Of those attributed to radon about 2000 are people who never smoked.

What do you do if you have high radon levels?

The U.S. Environmental Protection Agency (EPA) and the Surgeon General strongly recommend taking appropriate action when your home's radon in air test results are 4.0 pCi/L or greater. While not a mandated health standard, this level is a guideline for people to use in assessing the seriousness of their exposure to airborne radon. Several aeration and/or filtration devices on the market strip the radon from the water before it enters the home.