

# Understanding, Testing for and Mitigating Radon

## What is radon?

Radon is a colorless, odorless, radioactive gas. It forms naturally from the radioactive decay of uranium, which is found at various levels in bedrock. Radon gas escapes upward through the soil from the bedrock below into the air, ground water and surface water. In the 1980s, geophysical surveying found that Alaska's strongest natural concentrations are in the Yukon-Tanana uplands and parts of the Matanuska and Susitna valleys. These areas are generally underlain by schist bedrock, from which radon gas is released, but you will find radon anywhere there is decaying uranium with an escape route to the atmosphere.

Radon is present outdoors and indoors. It is normally found at very low levels in outdoor air and in drinking water from rivers and lakes because of dilution. However, it can be found at sustained, higher levels in the air of homes and other buildings, where it is contained.

Radon can enter a home through imperfections in the floors and walls when there is contact between the home and the soil. Examples include dirt-floor crawl spaces, unsealed sumps and cracks in slab-on-grade floors, utility penetrations and the tiny pore spaces in concrete block walls. In general, a basement provides a large surface area that contacts soil material, so it is a perfect place for radon to enter. Once it moves freely throughout the home's indoor air, occupants breathe it into their lungs, where it can cause cell damage that may lead to lung cancer. The amount of radon in the air is measured in picocuries per liter of air. If you smoke and there are high levels of radon in your home, your risk of cancer is

particularly high. Although there is no formula that



# Understanding your test results and taking action

The EPA recommends that you take action to reduce your home's indoor radon level if it is 4 picocuries/liter or more. While you can't get rid of uranium under your house or change the soil your home has contact with, you can correct the problem by sealing



