

# Radon Fact Sheet

## About Radon

Radon is a colorless, odorless and tasteless radioactive gas. Radon is formed when uranium in the soil breaks down. Radon emits radioactive decay products that may be breathed into a person's lungs, causing lung cancer.

## Sources of Radon



- A. Cracks in concrete slabs
- B. Spaces behind brick veneer walls that rest on uncapped hollow-brick foundation
- C. Pores and cracks in concrete blocks or concrete walls
- D. Floor-wall joints
- E. Exposed soil, as in a sump
- F. Weeping (drain) tile, if drained to open sump
- G. Mortar joints
- H. Loose-fitting pipe penetrations
- I. Open tops of block walls
- J. Building materials such as some rocks
- K. Water (from some wells)

## Health Effects From Radon

Based on a U.S. Environmental Protection Agency (EPA) assessment of risk for radon in homes, radon in indoor air is estimated to cause about 21,000 lung cancer deaths each year in the United States. Smokers are at higher risk of developing radon-induced lung cancer. Lung cancer is the only health effect which has been definitively linked with radon exposure. Radon-induced lung cancer typically develops 5-25 years after exposure. There is no evidence that other respiratory diseases, such as asthma, are caused by radon exposure.

## Radon Averages

The average outdoor level is about 0.4 pCi/L. Based on a national residential radon survey completed in 1991, the average indoor radon level is 1.3 picocuries per liter (pCi/L) in the United States. In North Dakota, 63 percent of homes have an elevated level of radon above the U.S. Environmental Protection Agency's (EPA) 'Action Level' of 4.0 picocuries per liter (pCi/L)

## Radon Levels

Radon can be found all over the United States. It can get into any type of building and can result in a high indoor radon level. People are most likely to get their greatest exposure at home, where they spend most of their time. North Dakota ranks as one of only two states that has all of its counties in the EPA's Zone I ranking, the highest ranking. This means all counties in North Dakota have a high potential for elevated levels of radon. The EPA

recommends taking corrective action if you have levels of 4.0 pCi/L or higher.

## Radon Testing



Testing is the only way to know your radon level. The EPA and the U.S. Surgeon General recommend testing all homes below the third floor for radon. Radon test kits may be obtained at your local health unit, hardware store or online.

## Radon Test Results

If your result is 4 pCi/L or higher, take a follow-up test before conducting mitigation. If the average of your first and second test is 4pCi/L or higher the EPA recommends fixing your home.

## Fixing a Radon Problem

Radon reduction systems are the most effective at permanently reducing radon levels in a home or building. The system may be installed during new construction or in an existing structure. A homeowner may install his or her own radon reduction system or hire a system installer.

The North Dakota Department of Environmental Quality, Radon Control Program may be contacted for more information about radon.