

# RISKS OF RADON

## ① WHAT IS RADON?

Radon is a cancer causing, radioactive gas. Radon comes from the natural (radioactive) breakdown of uranium in soil, rock and water and gets into the air you breathe. You can't smell or taste radon. But it may be a problem in your home.

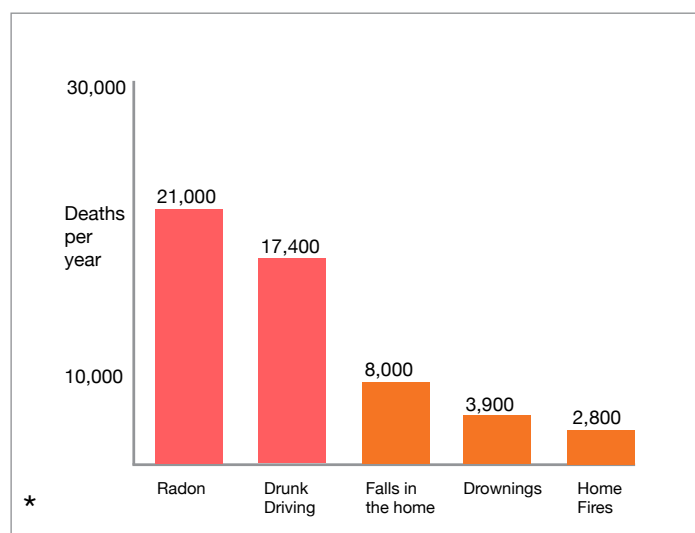
*"As a REALTOR in Fort Collins, Radon is something I have dealt with on a daily basis. It wasn't until a personal friend and colleague was diagnosed with Lung Cancer that the importance of Radon mitigation set in. The doctor had mentioned Radon as a possible cause and that led me to have my personal residence tested. The level was 20 pCi/L and has since been mitigated. I wish I had done it earlier."* Sam DeNunzio, Fort Collins

## ② HOW DO I PROTECT MY FAMILY?

We protect kids by teaching them to wear seatbelts and not to play with matches. You protect your family from all these other risks (fires, falls, drownings, and car crashes), and you can protect them from radon too.

You can protect your family by installing a radon mitigation system in your home. We have enclosed a list of Certified Radon Mitigators/Contractors from the Fort Collins area.

- People who have never smoked make up approximately 2,900 of the estimated 21,000 radon-related lung cancer deaths each year.
- Exposure to radon greatly increases the risk of cancer for smokers.
- Exposure to radon is a greater risk for children than adults.



## ③ HOW DO I MINIMIZE MY RISK?

**KNOW YOUR NUMBER.** The amount of radon in the air is measured in "picocuries per liter of air," or "pCi/L." The average radon level in the outside air is estimated to be about 0.4 pCi/L, and the average indoor radon level is about 1.3 pCi/L. You should consider mitigating your home if the radon level was 4 pCi/l or higher.+

0-2 pCi/l

If you've used only one short-term test, you should repeat the test to be sure the average level in your home is less than 4 pCi/l.  
MOST HOMES THAT HAVE BEEN MITIGATED FOR RADON FALL IN THIS RANGE.

2-4 pCi/l

If you've used only one short-term test, you should repeat the test to be sure the average level in your home is less than 4 pCi/l.



4 pCi/l

8 cigarettes per day.

**EPA RECOMMENDS: FIX YOUR HOME.**



10 pCi/l

20 cigarettes per day.

**EPA RECOMMENDS: FIX YOUR HOME.**



40 pCi/l

80 cigarettes per day.

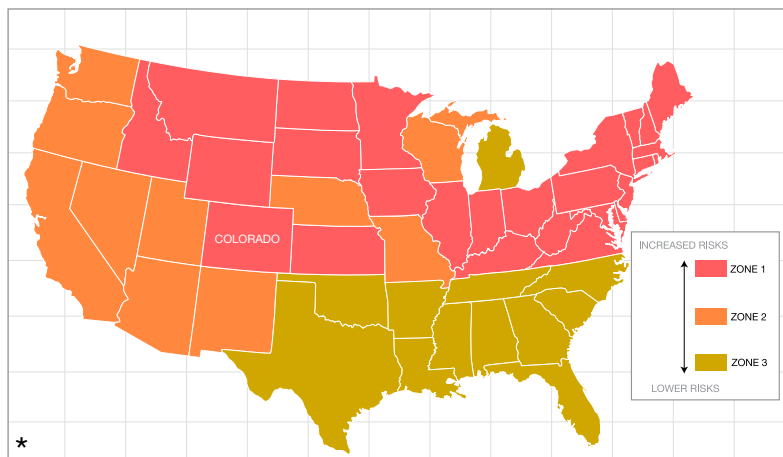
**EPA RECOMMENDS: FIX YOUR HOME.**

+Smoking works together with radon to greatly increase the probability of lung cancer. If you are a smoker, you might consider taking action at a lower radon level than 4 pCi/l due to the increased risk.

#### 4 WHY SHOULD I FIX MY HOME?

In 2012, over 1000 Fort Collins residents fixed their homes to reduce radon levels.

Colorado homes are in the highest risk category for having elevated levels of radon in their homes. **Two out of three** homes tested in Fort Collins between 1990 and 2012 had dangerous levels of radon in their homes. Join your neighbors who have protected their health by mitigating for radon.



#### 5 EXPERTS AGREE THAT MITIGATION IS THE BEST WAY TO PROTECT YOURSELF.

**MYTH: SCIENTISTS AREN'T SURE RADON REALLY IS A PROBLEM.**

**FACT:** Although some scientists dispute the precise number of deaths due to radon, all major health organizations (like the Centers for Disease Control, the American Lung Association and the American Medical Association) agree that radon causes thousands of preventable lung cancer deaths every year.

**MYTH: SHORT-TERM TESTS CAN'T BE USED FOR MAKING A DECISION ABOUT WHETHER TO FIX YOUR HOME.**

**FACT:** A short-term test followed by a second short-term test can be used to decide whether to fix your home.

**MYTH: I'VE LIVED IN MY HOME FOR SO LONG, IT DOESN'T MAKE SENSE TO TAKE ACTION NOW.**

**FACT:** You will reduce your risk of lung cancer when you reduce radon levels, even if you've lived with a radon problem for a long time.

**MYTH: IT IS DIFFICULT TO SELL HOMES WHERE RADON PROBLEMS HAVE BEEN DISCOVERED.**

**FACT:** Where radon problems have been fixed, home sales have not been blocked or frustrated. The added protection is sometimes a good selling point. When you fix your home now you protect your own health, if you wait until you sell, only the buyers benefit.

*"There is a lot of confusion about radon mitigation. At what level do scientists recommend you mitigate your home? Generally recommendations are consistent (between 4-6 pCi/l). The Health Physics Society, a professional organization concerned with radiation safety, recommends that home owners take action at 4 pCi/l, consistent with the EPA recommendation."*

Tom Johnson  
Associate Professor  
Environmental and Radiological Health Sciences  
Colorado State University

#### 6 GIVE YOURSELF PEACE OF MIND AND PROTECT YOUR HEALTH.

Any home can be fixed. In Colorado, it is possible to reduce radon levels in most homes to below 2 pCi/l. We have enclosed a list of licensed contractors who are experienced in fixing homes to reduce radon levels.



#### REFERENCES AND DATA SOURCES

\* Information cited from the following sources:  
U.S. Department of Health and Human Services, Public Health Service, ABDR. (1990). Toxicological profile for radon. Atlanta, GA: Agency for Toxic Substances and Disease Registry. US Environmental Protection Agency. Indoor Environments Division. A Citizens Guide to Radon. EPA 402-K-09-001, January 2009.