



Hanford Occupational Health Services

RADON

**Here are some facts and
myths about Radon**

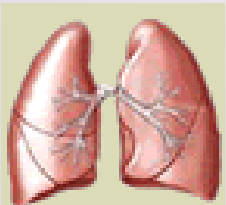
What is Radon?

It is a naturally occurring radioactive gas that may be present in homes, schools, and office buildings. You cannot see it, smell it, nor taste it, but you can test for it. And, if you have a radon problem, it can be fixed

- On January 13, 2005, Dr. Richard H. Carmona, the U.S. Surgeon General, issued a national health advisory on radon.
- Radon in our homes is the main source of exposure to ionizing radiation, and accounts for 50% of the public's exposure to naturally-occurring sources of radiation in many countries.

Lung Cancer

- Radon is the second leading cause of lung cancer.
- The World Health Organization (WHO) says radon causes up to 15% of lung cancers worldwide.
- Exposure to Radon Causes Lung Cancer In Non smokers and Smokers Alike
- Radon is responsible for about 21,000 lung cancer deaths every year. About 2,900 of these deaths occur among people who have never smoked.
- For smokers the risk of lung cancer is significant due to the synergistic effects of radon and smoking. For this population about 62 people in a 1,000 will die of lung-cancer, compared to 7.3 people in a 1,000 for never smokers.



Radon Myths & Facts



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- ◆ **MYTH: Scientists are not sure that radon really is a problem.**
- ◆ *FACT: Although some scientists dispute the precise number of deaths due to radon, all the major health organizations (like the Centers for Disease Control and Prevention, the American Lung Association and the American Medical Association) agree with estimates that radon causes thousands of preventable lung cancer deaths every year. This is especially true among smokers, since the risk to smokers is much greater than to non-smokers.*
- ◆ **MYTH: Radon testing is difficult, time-consuming and expensive.**
- ◆ *FACT: Radon testing is easy. You can test your home yourself or hire a qualified radon test company. Either approach takes only a small amount of time and effort.*
- ◆ **MYTH: Radon is only a problem in certain parts of the country.**
- ◆ *FACT: High radon levels have been found in every state. Radon problems do vary from area to area, but the only way to know your radon level is to test.*

Radon Myths & Facts



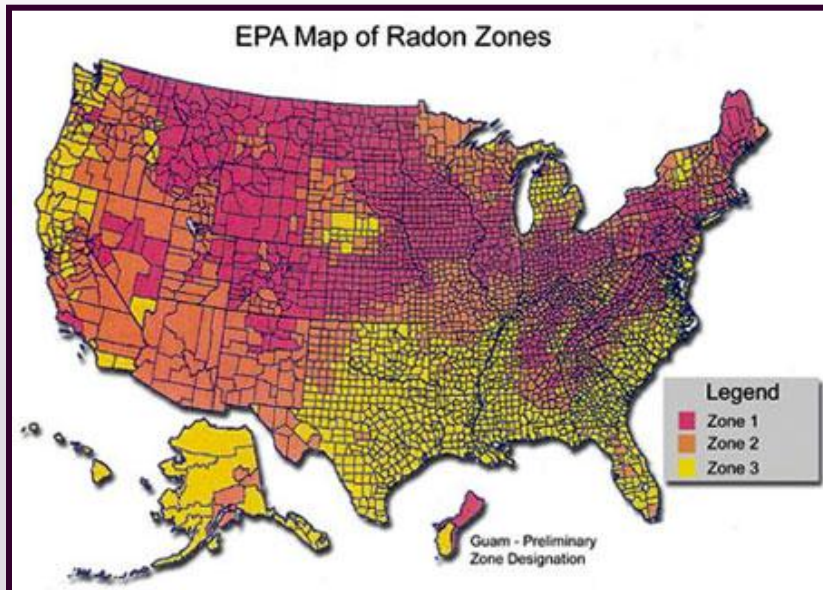
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- ◆ **MYTH:** Radon testing devices are not reliable and are difficult to find.
- ◆ **FACT:** *Reliable testing devices are available from qualified radon testers and companies. Reliable testing devices are also available by phone or mail-order, and can be purchased in hardware stores and other retail outlets. Call your state radon office for help in identifying radon testing companies.*

Zone 1 counties have a predicted average indoor radon screening level greater than 4 pCi/L (pico curies per liter) (red zones)

Zone 2 counties have a predicted average indoor radon screening level greater than 2 pCi/L (pico curies per liter) (orange zones)

Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L (yellow zones)



MYTH: Homes with radon problems can't be fixed.

FACT: *There are simple solutions to radon problems in homes. Hundreds of thousands of homeowners have already fixed radon problems in their homes. Radon levels can be readily lowered for \$800 to \$2,500 (with an average cost of \$1,200).. Call your state radon office for help in identifying qualified mitigation contractors.*

Radon Myths & Facts



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◆ **MYTH:** Radon affects only certain kinds of homes.

◆ **FACT:** *House construction can affect radon levels. However, radon can be a problem in homes of all types: old homes, new homes, drafty homes, insulated homes, homes with basements, and homes without basements. Local geology, construction materials, and how the home was built are among the factors that can affect radon levels in homes.*



MYTH: A neighbor's test result is a good indication of whether your home has a problem.

FACT: *It's not. Radon levels can vary greatly from home to home. The only way to know if your home has a radon problem is to test it.*

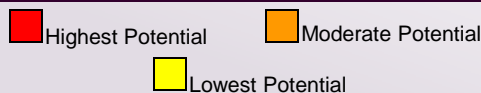
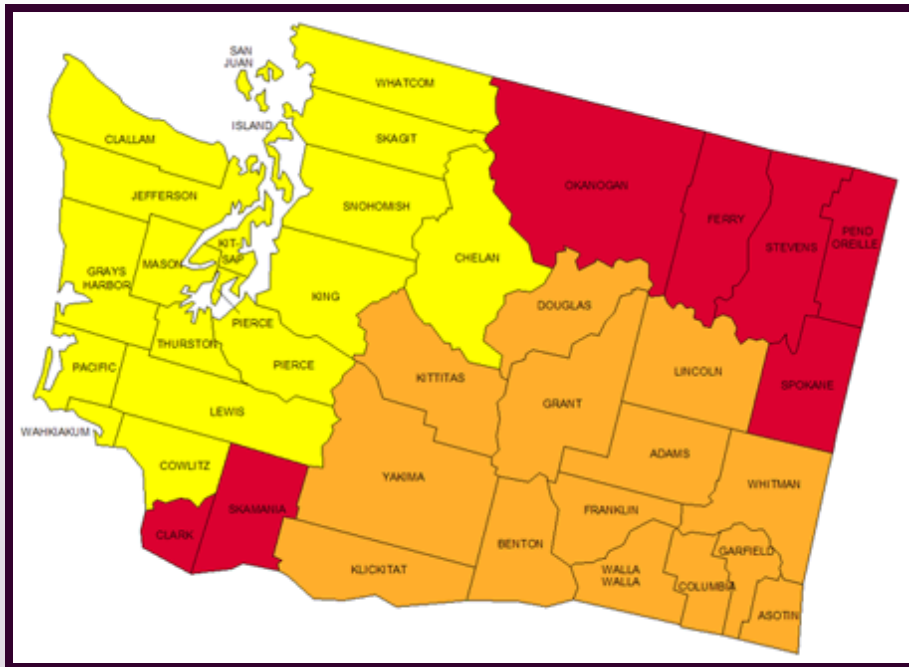


Radon Myths & Facts



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- ◆ **MYTH: Everyone should test their water for radon.**
- ◆ **FACT:** *Although radon gets into some homes through water, it is important to first test the air in the home for radon. If your water comes from a public water supply that uses ground water, call your water supplier. If high radon levels are found and the home has a private well, call the Safe Drinking Water Hotline at 1-800-426-4791 for information on testing your water.*



MYTH: It's 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 some times a good selling point.*

Radon Myths & Facts



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- ◆ **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:** 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. However, the closer the average of your two short-term tests is to 4 pCi/L, the less certain you can be about whether your year-round average is above or below that level. Keep in mind that radon levels below 4 pCi/L pose some risk. Radon levels can be reduced in most homes to 2 pCi/L or below.*



You can't see radon, but it's not hard to find out if you have a radon problem in your home. All you need to do is test for radon. Testing is easy and should only take a few minutes of your time.

- There are many kinds of low-cost "do-it-yourself" radon test kits.
- Or hire a qualified tester to do the testing for you.

Radon gets in through:

1. Cracks in solid floors
2. Construction joints
3. Cracks in walls
4. Gaps in suspended floors
5. Gaps around service pipes
6. Cavities inside walls
7. The water supply



For More Information on Radon



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◆ U.S. Environmental Protective Agency

www.epa.gov/radon/radontest.html



Sample of a Do-It-Yourself
Test Kit