



IMPORTANT FACTS ABOUT RADON GAS

What is Radon?

Radon is a naturally-occurring radioactive gas that comes from radioactive decay of uranium and radium deposits in soil, rocks, and well water. You cannot see it, taste it, or smell it. Radon gas atoms decay into solid radioactive atoms called "*Radon daughters*" (sometimes referred to as "*Radon progeny*"). It is the Radon daughters in inhaled air that can deposit in our lungs and cause health problems.

Can Radon really affect my health?

There are differing opinions on that. But the U.S. Environmental Protection Agency (EPA) indicates that the leading causes of lung cancer are *smoking*, *radon* and *secondhand smoke* - in that order. However, some scientists do not believe that Radon causes that much lung cancer. Smoking definitely causes *a lot* more lung cancers than Radon does. Smokers exposed to high levels of Radon are at a much greater risk of lung cancer than nonsmokers since their lung function is already damaged by the cigarette smoke exposure.

Where can I be exposed to Radon?

Essentially everywhere but Radon tends to accumulate in tightly-sealed homes and other buildings. The main source of high-level Radon pollution in buildings is surrounding uranium or radium-containing granite, shale, phosphate, and pitchblende. Radon enters a home through cracks in walls and foundations, basement floors, and other openings. It may also contaminate the water supply especially in private wells.

Does California have high Radon levels in buildings compared with other States?

No. Many states have *much* greater uranium and radium deposits in the soil and rock than California. Therefore, California generally has lower Radon concentrations than most other states. To find out how the Radon levels compare in different parts of California, go to this website:

<http://www.epa.gov/radon/zonemap/california.htm>

How do I know if my home has a high level of Radon in the air?

Testing a home is inexpensive and easy. There are many kinds of low-cost "do-it-yourself" Radon test kits you can get through the mail and in hardware stores (make sure they indicate that they meet EPA requirements). If you prefer, you can hire a qualified tester to do the testing for you. The California Department of Public Health offers free (or *very* inexpensive) Radon test kits for Orange County residents:

<http://www.cdph.ca.gov/healthinfo/vironhealth/Pages/RadonScreening.aspx>



What can I do if the Radon level in my house is high?

The U.S. EPA established an action level of 4 picocuries of Radon per liter of air. By action level, they simply mean that is the level at which the EPA recommends that action be taken to reduce the Radon concentration. If necessary, the level of Radon in a home can be reduced using several methods, but just ventilating a house more or using an air cleaner will greatly improve the situation. The *California Indoor Radon Program* can be contacted for advice on contractors who specialize in Radon issues.

Indoor Radon Program

Radon Hotline 1-(800)-745-7236

California Radon Contact: [George Faggella](mailto:George.Faggella@cdph.ca.gov); George.Faggella@cdph.ca.gov

Phone: (916) 449-5674

Fax: (916) 449-5665

What is normally done to seal homes better against Radon?

Radon levels can be lowered through a variety of repairs from sealing cracks in foundations, floors, and walls to changing the flow of air into the building. Sub-slab depressurization uses pipes and fans to remove Radon gas from beneath the concrete floor and foundation before it can enter the building. Radon is then vented above the roof where it safely disperses. Repairs to decrease Radon levels should be made by an EPA or state-certified contractor.



Does cigarette smoke contain Radon and its daughters?

Yes. The soil in which tobacco is grown contains small amounts of uranium and radium which ends up in the tobacco plant. Smoking *greatly* increases the Radon radiation dose to the lungs.

☹ Should I be *very* concerned about my Radon exposure? ☹

Not if you live in California and are a nonsmoker. The health risk due to Radon is very low compared with other risks such as accidents, high cholesterol, high blood pressure, obesity, over-exposure to sunlight, poor diet, excessive alcohol consumption, etc.

☞ *If you have any more questions about Radon, contact EH&S at 949-824-6200.*