Course: CB/WB1585

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#### Radon Overview

Radon is a naturally occurring, colorless, odorless, and tasteless radioactive gas. It is the leading source of background radiation exposure in the United States. Radon

- Occurs naturally in soil, rock and water,
- Can get into the air you breathe,
- Is found throughout the United States,
- Can get into any type of building—homes, offices, and schools—and can result in high indoor radon levels.

#### How Can People Be Exposed to Radon?

Everyone is exposed to radon in the air. People can be exposed to radon through a variety of sources:

- Radon comes from soil, water, natural gas, and building materials.
- Human exposure to radon occurs through inhalation and ingestion.

Nearly 1 out of every 15 homes in the United States is estimated to have elevated radon levels. Radon seeps from the soil into buildings primarily through or around

- · Cracks in foundations and concrete floors,
- Dirt floors (crawl spaces), and
- Sump holes.

#### How Can Radon Affect Health?

Radon decays into radioactive gas particles that can be trapped in your lungs when you breathe. If you have been exposed to increased levels of radon, you might or might not get sick.

- Exposure to increased levels of radon gas could result in lung cancer.
- Radon has no immediate health effects, no irritating effects, and exposure has no warning signs.
- Smokers exposed to radon are at greater risk for lung cancer than are nonsmokers similarly exposed.

Illness	Description	Symptoms
Chronic, nonmalignant lung diseases such as Emphysema, Chronic interstitial pneumonia, and Pulmonary fibrosis.	A chronic scarring lung disorder, where scarring prevents oxygen from moving freely from the lungs to the blood.	Usually: Cough, Shortness of breath, Chest pains, Night sweats, and Fatigue. Sometimes:  • Difficulty breathing.
Lung Cancer	The same type of cancer that is caused by smoking.	Usually: No symptoms—at least until late stage. Sometimes: Bloody sputum, Cough, Difficulty breathing, Weight loss, and Wheezing.

#### How Can Radon Affect the Health of Children

A child's different lung shape, size, and breathing rates as compared with adults means higher estimated radiation doses.

- Risk of lung cancer in children resulting from exposure to radon may be almost twice as high as the risk to adults exposed to the same amount of radon.
- If children are also exposed to tobacco smoke, the risk of lung cancer is at least 20 times greater.

# How Can People Reduce their Risk of Radon Toxicity?

Radon cannot be seen, smelled, or felt. The only way to evaluate exposure to increased radon gas levels is to measure the radon levels in the home or building you occupy.

- Do-it-yourself radon detection kits are available in most hardware stores.
- Radon testing can be done through a radon detection and remediation company.

4pCi/L (pico Curies/liter - the standard radon measure) of radon is the EPA recommended exposure level for remediation or home repair.

If levels of radon inside a home or building are increased, an effective way to remediate is with subslab depressurization.

- Subslab depressurization is one of the most effective methods of lowering high radon levels in many homes.
- Subslab depressurization with suction lowers the air pressure in soil below inside air pressure, preventing radon soil gas from seeping into a home.

Most homes can be fixed for under \$2,000, which is a costeffective measure that may prevent radon- related health problems.

It's never too late to reduce your risk of lung cancer.

Don't wait to test and fix a radon problem.

If you are a smoker, stop smoking!

Is There a Test to Check if People are Exposed to Radon?	Currently, no effective, community-wide screening methods are available for medical prevention or early diagnosis and treatment of radon-induced diseases.
Follow up instructions	□ Provide your physician with the results of your home's radon testing. □ If your home radon test showed high levels of radon, schedule a thorough physical examination. □ Return to clinic: □ Other instructions: