Radon Talk to South Tahoe Cancer League Thursday, October 31, 2019  
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Hello South Tahoe Cancer League!

My background: Been here nearly 50 years, started Grass Roots in 1973, School District as computer manager 14 years, retired, tested my home for radon, decided to get trained, Radon At Tahoe since 2004.

1. You are likely part of this group because you want to do something about preventing cancer or finding a cure. There are a lot of cancers out there, but lung cancer is one of the most deadly and one of the hardest to cure. Smoking is the leading cause of lung cancer. But do any of you know someone who got lung cancer and they never smoked? Radon is the leading cause of lung cancer in non-smokers. My neighbor Carla, just up the street from me, died of lung cancer this year. And she did not smoke. But she did live in her house with high radon for nearly 30 years, just like me, before she found out about radon and fixed it. Knowing exactly what causes lung cancer is impossible. But we have to go with the statistics: When radon, and its radioactive progeny elements, go through radioactive decay they emit strong alpha particles which can kill or damage the lung tissue.

2. Who is in your house?

How many of you have kids or grandkids running around your house? Children have a higher risk because of their young lungs and more time to live. According to the CDC:

**Children and Radon** Exposure **Risk**

**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 getting **lung cancer** increases at least 20 times.

3. What is Radon?  
It is element 86 on the Periodic Table, which means it’s an atom, very small. As an element, it is unusual in that it is both radioactive and a gas, which means it is difficult to get away from if it is in the air you are breathing. Most if not all other radioactive elements are solid, so they stay where they were formed in the Earth’s crust until they are mined and brought to the surface. There is not much chance of exposure to Uranium or Radium, unless you are hanging out in a Uranium mine. But Radon comes to where you are, at home, least expecting. And you can’t see it or smell it. It gets sucked into your house by what is called the Stack Effect where in a warm house, heat naturally rises and causes a slight vacuum causing earth gases and moisture to be sucked into the house from the ground below. If you happen to be over a rift in the rocks and soil, it acts like a freeway for radon to come up and into your house. If your neighbor is not over a similar crack in the rocks, he may have low radon while you could have high radon.

So it’s a good idea to test your home, no matter where you live. But if you happen to live in the Sierra Nevada Mountains, you would be foolish not to test.

4. How much radon do we have in South Lake Tahoe? Show charts.

Yet why do so few people in South Lake Tahoe test their homes for radon? Why do you think? Any ideas?

5. How to test.

Charcoal one-time test or electronic continuous test.

6. What else can we do? Be an activist. Get Radon testing to become normal.   
a. Real Estate: Test during every house sale. It’s not required in California or Nevada. But the Natural Hazard Disclosure Guide lists Radon but does not require testing.

b. Build radon out during construction. Building Codes in many cities and counties require building Radon Resistant homes. South Lake Tahoe and El Dorado County do not. RRNC. Radon Resistant New Construction. $500 vs. $4000. You can pay me now or you can pay me latter. I took flyers to most of the 252 homes in the Angora Fire burn area (two blocks from my home!) and I found absolutely no interest by owners or contractors to build radon out during construction.

c. Get the major institutions, such as the City, the County, the building departments to encourage and even require testing and building radon out during construction. Service clubs such as Soroptomists , and even the South Tahoe Cancer League to sponsor radon awareness and action. And especially health institutions, such as Barton Health, our only hospital, to sponsor programs to encourage their staff and their patients to test their home.

I personally have joined the Barton Patient and Family Advisory Council 2 years ago with the express goal of getting Barton Health to sponsor two radon programs: First is the Newborn Radon Program, where every new mother takes home a free radon test kit in their newborn kit so their new baby can start their life out in a radon free environment. I worked with the PFAC to develop the Newborn Radon Program for Barton in South Lake Tahoe. Here are the originals and the one’s Barton developed. But, the Pediatricians, so far, have refused to participate. We even got the State of California Radon Program to donate 400 test kits as a starter program. Over 190 hospitals across 5 states use this program. Even their professional organization, the American Academy of Pediatrics, recommends that doctors tell their patients to test their homes for radon. (2018 talk from ECHO conference at Boston Children’s Hospital).

The other Radon Health program is the Physicians and Radon Program. This too is a multi state program first started in Iowa, where physicians simply add the question: “Have you tested your house for Radon” on the intake form for their patients, similar to “do you smoke.” This is an opportunity to council their patients on the dangers of radon and suggest they take get a test.

So far Barton Health has refused to adopt or even hold any meaningful discussions with me on either program over the last 6 years of my efforts. It’s a lonely job being a radon activist, getting radon awareness and action into the community. If anyone here has connections to Barton Health and wants to help get something going, let me know.

If I have inspired you to test your home, good. Get a test kit today. If any of you in the Cancer League would like to help me get the word out and get more people to test their homes to reduce the cancer risk from radon I will work with you.

Thank you!