RADON FACTSHEET

Radon is a naturally occurring radioactive gas and the leading cause of lung cancer in humans that do not smoke.

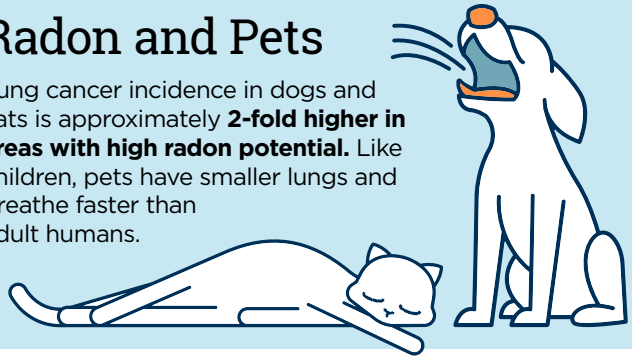
Most exposure to radon occurs in buildings. The only way to know if a building has high radon levels is by testing for radon. All buildings should be tested for radon.

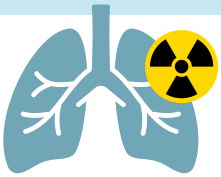
When radon levels are **equal to or greater than 4 picoCuries per liter of air** then a certified contractor should be hired to lower the radon level.

>4 picoCuries per liter

Radon and Pets

Lung cancer incidence in dogs and cats is approximately **2-fold higher in areas with high radon potential.** Like children, pets have smaller lungs and breathe faster than adult humans.





Thus, pets may receive a higher dose of radiation from breathing radon than adult humans. Exposure to both cigarette smoke and radon increases the risk of lung cancer. Emphysema and fibrosis are more prevalent and severe in dogs exposed to second-hand-smoke and radon.

Secondhand Smoke

Secondhand smoke is a mixture of smoke exhaled by the smoker and smoke from the burning end of tobacco products.

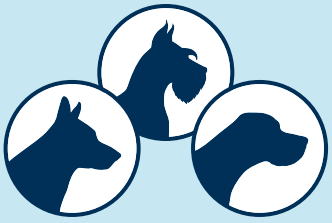
over **7,000** chemicals & **69** carcinogens

Cigarette smoke contains over 7,000 chemicals and 69 of those are known carcinogens. Pet owners are motivated to create smoke-free homes for their pet's health.

Pets and Secondhand Smoke

Respiratory cells of dogs with chronic bronchitis exhibit DNA damage from secondhand smoke.

Exposure to secondhand smoke results in pulmonary emphysema, fibrosis, and chronic bronchitis as well as bronchiolitis in dogs.



Medium- to long-nosed animals may be at **higher risk of nasal cancer** from secondhand smoke.

Secondhand smoke may exacerbate chronic cough in dogs with respiratory disease.

Are Pets at Risk in North Carolina?

Yes!

Pets rely on humans to protect them! We are hopeful that this information will assist humans in knowing the risks from secondhand smoke and radon on dogs and cats.

Radon and Secondhand Smoke Exposure in Pets

Veterinarians Can Help:

- Encourage pet owners to take action.
- Educate pet owners about the dangers of radon and secondhand smoke.
- Test your own home for radon and share how easy it was to do so.
- Advise owners to contact the North Carolina Radon Program for details about how to address high radon levels.

Tobacco Cessation

Humans can receive assistance by visiting the North Carolina Tobacco Quit Line website at quitlinenc.com or by calling 1-800-784-8669.

Test for Radon

Humans can obtain a test kit at most hardware stores. They may also order a test kit by visiting radon.ncdhhs.gov or sosradon.org.

Fixing High Radon Levels

The North Carolina Radon Program website contains information on how to identify and contact a certified radon mitigator as well as guidance. Visit radon.ncdhhs.gov.

Resources

- **American Lung Association** (https://www.lung.org/clean-air/at-home/indoor-air-pollutants/radon)
- **Radon Testing** (https://www.cdc.gov/radon/testing/index.html)
- **KMOV St. Louis (2024, April 28). Pets, like humans, susceptible to Radon dangers** (https://www.youtube.com/watch?v=lfgYJq40NT0)
- **U.S. Department of Health and Human Services. A Citizen's Guide to Radon: The Guide to Protecting Yourself and Your Family from Radon.** (https://www.epa.gov/sites/default/files/2016-12/documents/2016_a_citizens_guide_to_radon.pdf)
- **U.S. Department of Health and Human Services. Radon and Cancer** (https://www.cancer.gov/about-cancer/causes-prevention/risk/substances/radon/radon-fact-sheet)
- **U.S. Environmental Protection Agency. Radon** (https://www.epa.gov/radon)

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