

Department of Energy and Environment Radon Program

Licensing & Certification Branch

Dr. Lakisa Blocker, Branch Chief
Keith Keemer, Environmental Protection
Specialist

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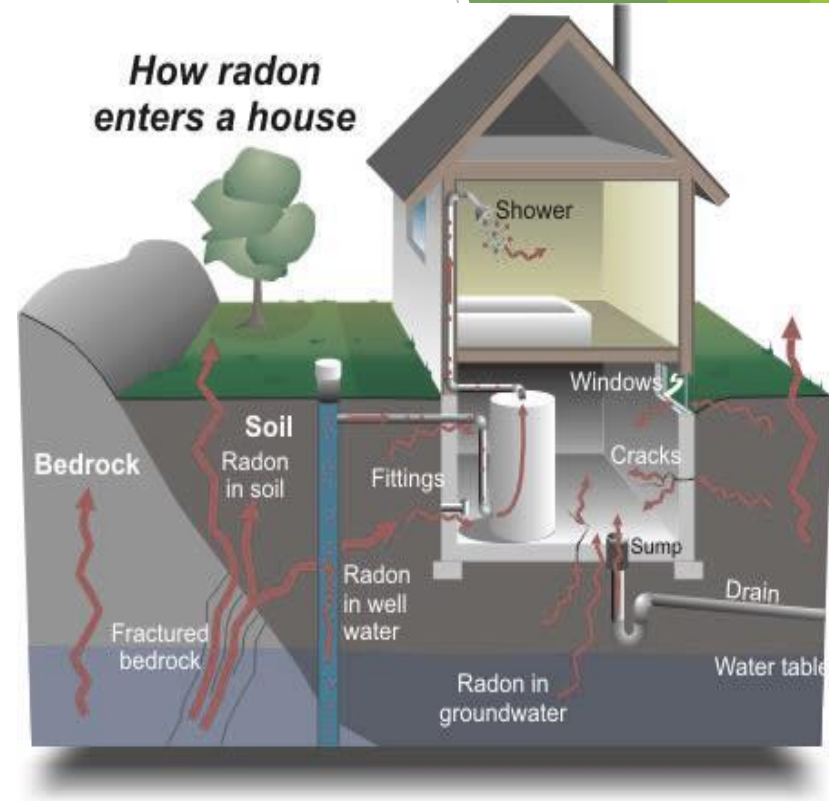




Quick Overview

Radon is an invisible cancer-causing, radioactive soil gas that is colorless and tasteless. The only way to know if a home has radon is to test.

According to the U.S. Environmental Protection Agency, radon has been found to be 2nd leading cause of lung cancer and the number one cause for non-smokers.



Radon Activities

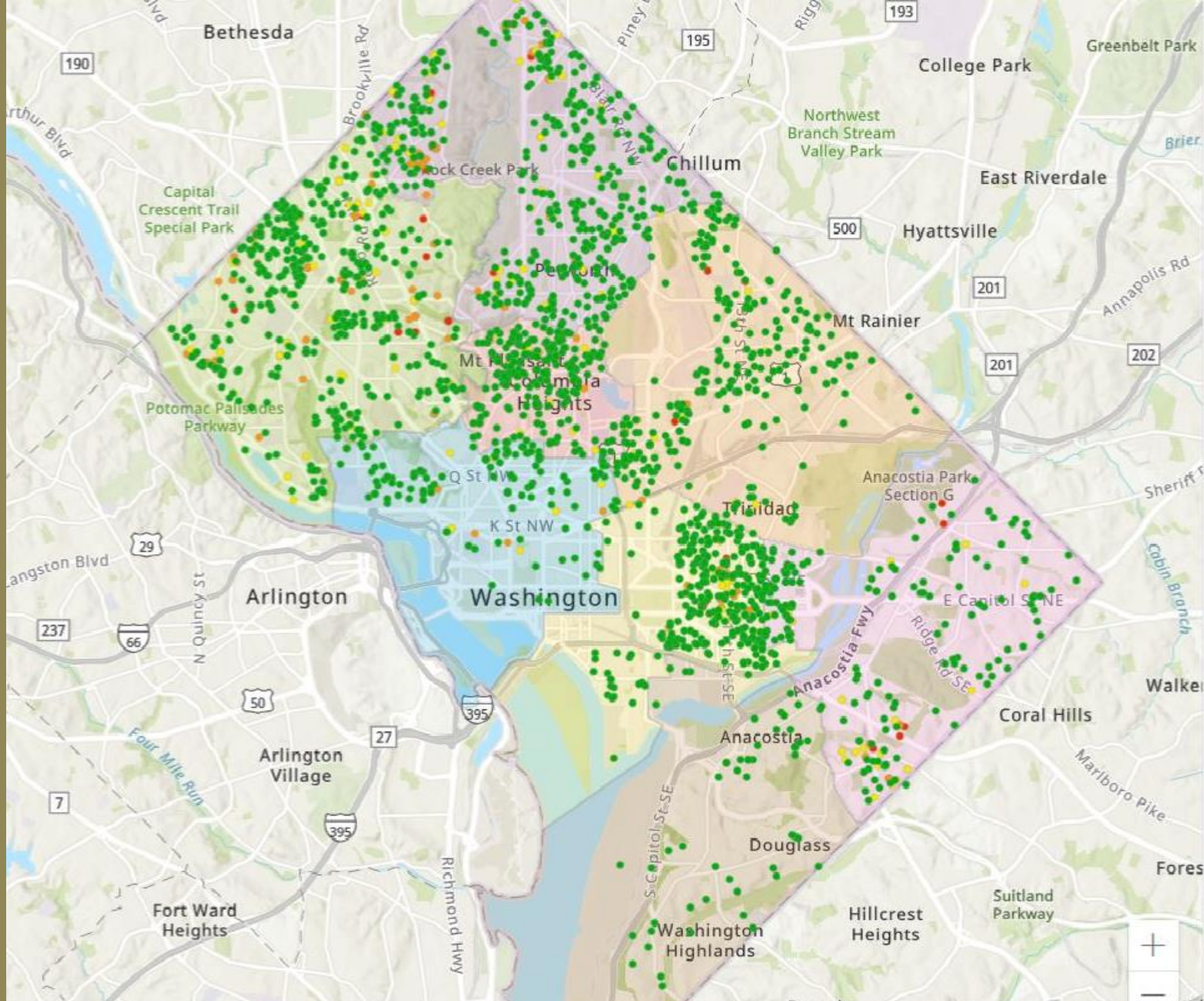
1. Radon Hotline (202 535-2302)
2. Radon webpage (<http://doee.dc.gov/radon>.)
3. Free radon test kits for DC residents
4. Attend local and government community outreach events
5. Provide radon presentations and workshops
6. Radon map

Radon Outreach

- ▶ 3/8 GZEP presentation @Annacostia HS - discuss radon and mold program
- ▶ 3/14 ANC 7F – Zoom meeting - discuss radon and mold program
- ▶ 6/3 DOEE Grand Prix Solar car race - Distribute radon and mold literature and information
- ▶ 6/12 GZEP presentation - discuss radon and mold program
- ▶ 7/18 GZEP Presentation - discuss radon and mold program

DC Radon Map 2019-2023

- ✓ Currently, EPA has Washington, DC/District of Columbia listed as Zone 3
- ✓ The majority of our test result data shows DC homes with levels lower than four (4) pico curies per liter (4pCi/L), some present levels above 4pCi/L.
- ✓ More high levels in upper NW
- ✓ More outreach needed in NE and SE
- ✓ New residents are interested and testing



GETTING STARTED

This interactive dashboard is for the use of displaying annual information surrounding radon testing in the District of Columbia from the calendar years of 2019 to 2023.

Note: The data on this map for 2023 is partial (through August)
 Email (contact email) to report any data errors you see.

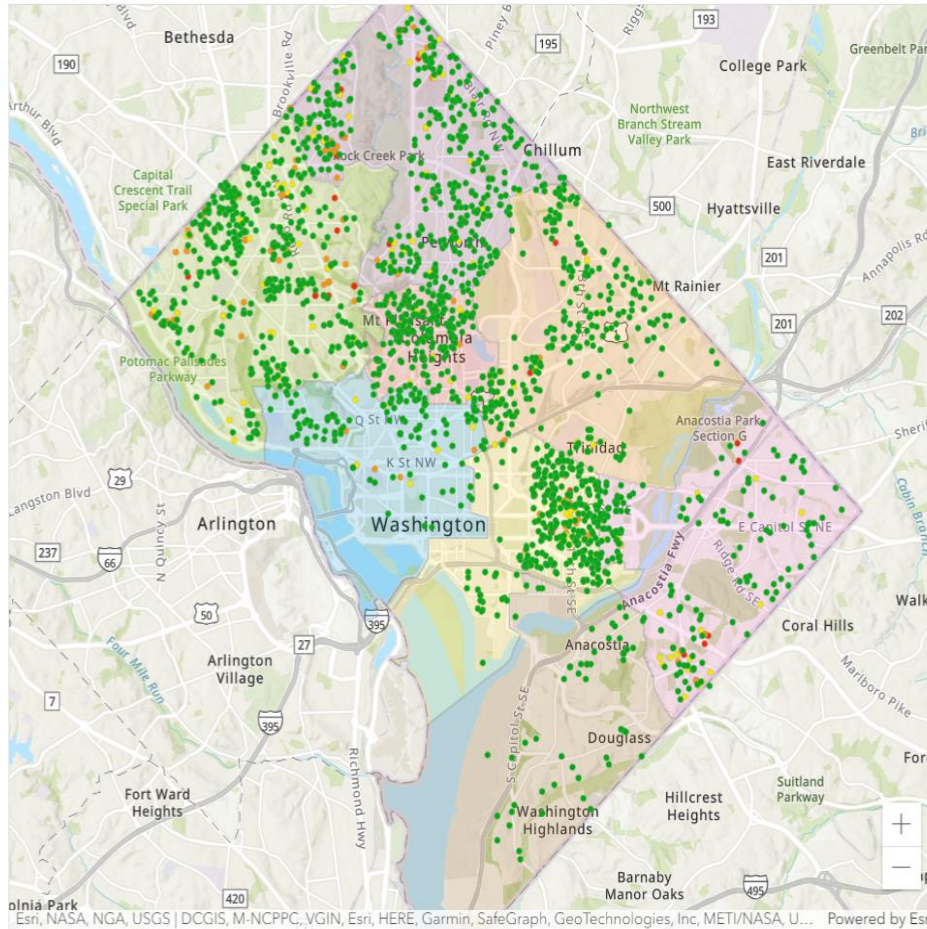
ABOUT THE MAP

Click on a given year or multiple years to see the radon test distribution for that time period.

Each selection displays locations that conducted at home radon tests using Alpha Energy laboratories test kits, with results grouped according to radon levels. When no selection is made, data is displayed for all years (2019 to 2023).

DATA SUBSETS

Year can be selected via the table or bar chart, and will change the display of home tested on the central map.



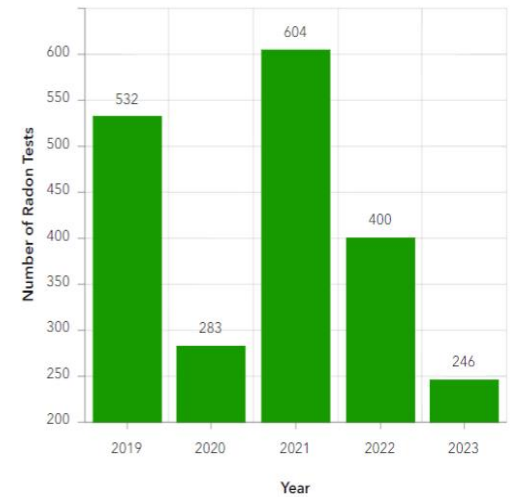
Radon Levels

- 0.00 to 2.99
- 3.00 to 3.99
- 4.00 to 6.99
- 7.00 to 20.00+

Year

2019
2020
2021
2022
2023

Number of Radon Tests per Year



January 2023 – EPA National Radon Action Month

2023 DC Radon Awareness Month - OCEO

- ▶ Radon Messaging via email blast to neighborhood organizations (>100,000 residents)
- ▶ Radon Messaging on Facebook
- ▶ Radon Messaging using Twitter
- ▶ Radon Messaging on DOEE Web Page

- ▶ ** First half of FY21 - FB/Twitter social media engagement: 486 impressions/views.*
- ▶ ** First half of FY2023 - Radon website 1,159*

Radon Outreach Flyers



SO, YOU'RE BUYING A HOUSE!

Make Sure You Test for **RADON**

WHAT IS RADON?

Radon is a naturally occurring radioactive gas that can cause lung cancer. Radon gas is inert, colorless, and odorless. Radon, in trace amounts, is naturally in the atmosphere.

WHAT HEALTH PROBLEMS DOES RADON CAUSE?

When you breathe in radon, radioactive particles from radon gas can get trapped in your lungs. Over time, these radioactive particles increase the risk of lung cancer. It may take years before health problems appear. Radon is the second leading cause of lung cancer after cigarette smoking.

HOW COMMON IS IT TO HAVE RADON IN HOMES?

Any home can have a radon problem. This means new and old homes, well-seal and drafty homes, and homes with or without basements. According to the United States Environmental Protection Agency (EPA), nearly one out of every 15 homes in the United States is estimated to have an elevated radon level (4 pico-curries of liter of air -pCi/L or more). Elevated levels of radon gas have been found in the District of Columbia. To see the District's radon map displaying radon levels throughout the city and receive a free radon test kit (available for DC residents) visit the District's radon web page at doee.dc.gov/radon. Also, feel free to call the DOEE radon hotline at 202 535-2302.

IS IT BAD TO BUY A HOUSE WITH RADON?

Radon can seep into any home that is in contact with the ground. Radon is undetectable unless you perform a radon

test. It is the second leading cause of lung cancer and according to the EPA and CDC, radon exposure is estimated to have caused approximately 21,000 lung cancer deaths annually. Though radon seepage into a home may be common in some areas, radon can be mitigated using certified radon professionals. Make sure to ask the seller to show you a recent Radon test.

HOW MUCH DOES IT COST TO TREAT RADON?

The cost of a mitigation system may vary according to the home's design, size, foundation, construction materials and the local climate. Radon reduction systems average costs nationally are \$1,200 with a range from \$800 to \$1500 depending on house and market conditions. According to the EPA, when installed properly and completely, radon-resistant techniques can also make your home more energy efficient and help you save on your energy costs.

IS RADON A DEAL BREAKER?

Radon is a concern because it is known to cause lung cancer. However, there are ways to fix a radon problem and even very high levels can be reduced to acceptable levels. The EPA recommends asking the seller for their radon test results. If the home has a radon-reduction system, ask the seller for any information they have about the system. If a test has not been done go [here](#) to see the EPA's Home Buyer's and Seller's Guide to Radon. There is a Radon testing checklist and more information.



WHAT IS RADON?

Radon is a naturally occurring radioactive gas identified as the second leading cause of lung cancer. Radon is odorless, invisible and without taste and cannot be detected with the human senses. Radon is naturally occurring outdoors, but often is substantially concentrated indoors because homes are not normally built to be radon resistant.

RADON AND CHILDREN

Children behave differently than adults, leading to a different pattern of exposures to the world around them. For example, children exhibit hand-to-mouth behavior, ingesting whatever substances may be on their hands, toys, household items, and floors. Children play and live in a different space than do adults. For example, very young children spend hours close to the ground where there may be more exposure to toxicants in dust, soil, and carpets as well as low-lying vapors such as radon, mercury vapor or pesticides.

WHY TEST FOR RADON?

Because of the serious health risk posed by radon, EPA recommends that all homes, home day care centers and commercial day care facilities are tested for radon. Day care environments should take steps to lower indoor radon levels when levels are at or above EPA's radon action level of 4 pCi/L and consider lowering radon levels when found to be between 2 and 4 pCi/L.

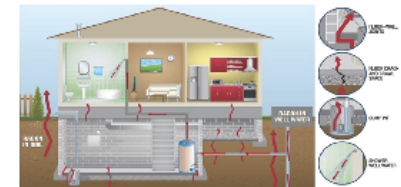
WHAT HEALTH EFFECTS ARE ASSOCIATED WITH RADON?

According to EPA, radon is the second leading cause towards lung cancer and the number one cause to non-smokers. When radon and radon decay products are inhaled, they can cause damage to the cells and tissues of the lungs, which can lead to lung cancer over the course of a lifetime. Children's lungs are smaller than adults and they have higher breathing rates; potentially exposing them to higher doses of radiation.

Not everyone who is exposed to radon will get lung cancer. The time between exposure and cancer diagnosis may be many years.

HOW DOES RADON ENTER A PROPERTY?

Outdoors, radon poses a significantly smaller risk than it does indoors. Indoors, radon can accumulate to high concentrations. Radon gas can enter a home from the soil through cracks in concrete floors and walls, floor drains, sump pits, construction joints, around pipe penetrations, and through tiny cracks or pores in hollow-block walls. While radon concentrations generally are highest in basements and ground floor rooms that are in contact with the soil, radon levels can reach high levels in main floor and upper floor rooms as well.



RADON TESTING

Radon can be measured easily through inexpensive do-it-yourself testing or by hiring a trained radon professional to perform the testing. The Department of Energy and Environment has free radon test kits DC residents available by visiting the District's Radon webpage at doee.dc.gov/radon or by calling the DC Radon hotline at 202 535-2302.

For professional testing, feel free to visit The National Radon Safety Board (www.nrsb.org) or the American Association of Radon Scientist and Technologist (aars-t-nrpp.com). Each organization provides a list of certified radon professionals that can be also be found on the DOEE radon web page.

The End

Thank
you for your
attention



Quiz Question!!!



How many Wards are in the District of Columbia?

- ▶ a. 5
- ▶ b. 8
- ▶ c. 7
- ▶ d. 9