

Development of Educational Resources on Radon for Health Care Providers



Reducing the Risks From Radon:

Information and Interventions

A Guide for Health Care Providers

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Public Health

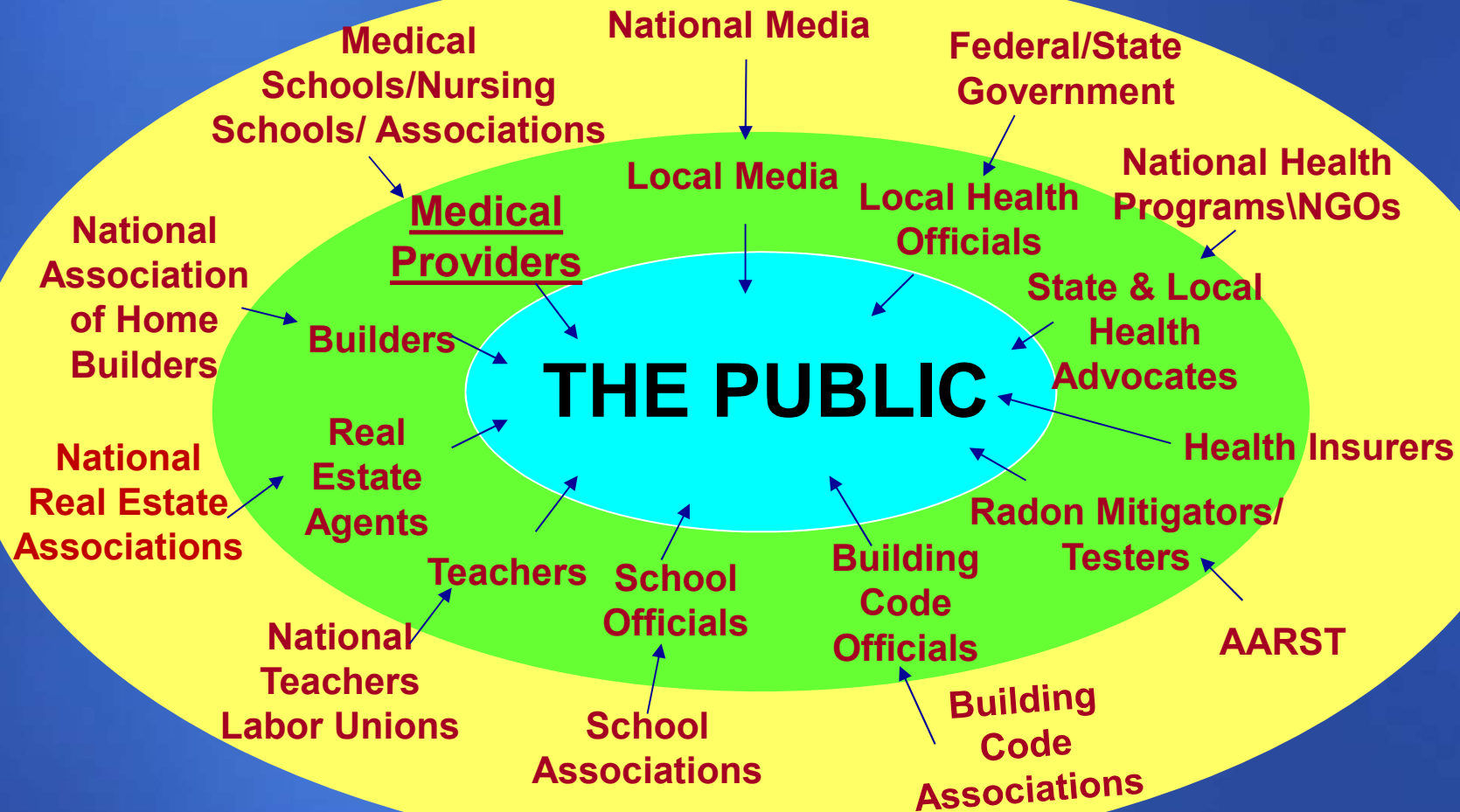
OVERVIEW

- The scope and content of the new radon guide for health care providers
- Common health care providers' misperceptions about radon
- Educational resources on radon for health care providers
- The development of sample radon guidance for use in health care settings
- Examples of interventions health care providers can facilitate to reduce the burden of radon-related lung cancer

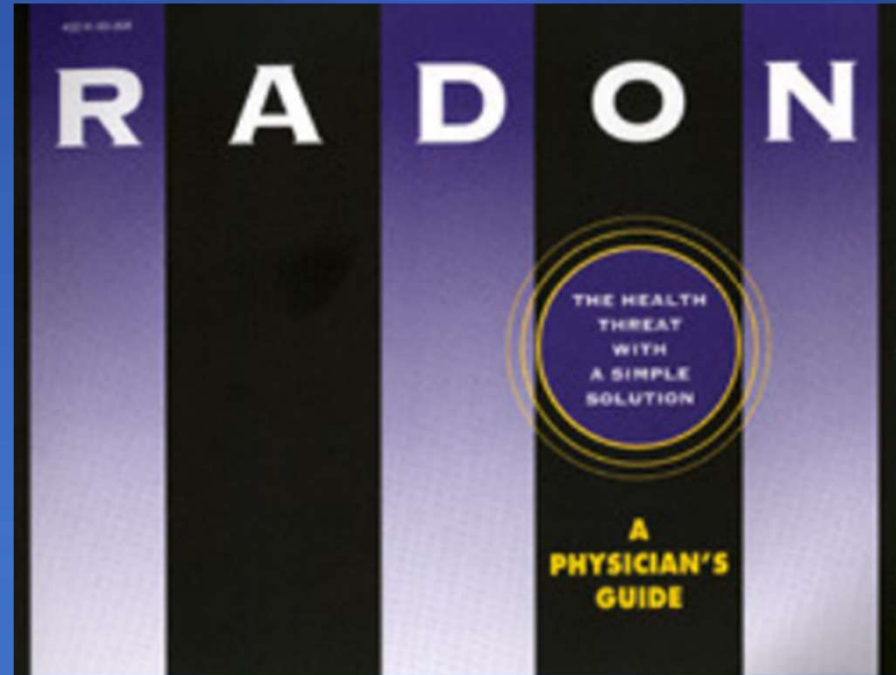
Acknowledgements

- The Conference of Radiation Control Program Directors, Inc. (CRCPD)
- The U.S. Environmental Protection Agency
- The Iowa Cancer Consortium
- Numerous peer reviewers and stakeholders who provided input on the guide

Radon Education



The Physician's Guide on radon was first published in 1993 by the U.S. Environmental Protection Agency in consultation with the American Medical Association (AMA).



“Its purpose is to enlist physicians in the national effort to inform the American public about the serious health risk posed by indoor radon gas.”

Google Search for "Radon" and "Physician"

A Physician's Guide to Radon | Radon | US EPA

<https://www.epa.gov/radon/physicians-guide-radon> ▼

This booklet on **radon** has been developed for **physicians** by the U.S. Environmental Protection Agency in consultation with the American Medical Association (AMA). Its purpose is to enlist **physicians** in the national effort to inform the American public about the serious health risk posed by indoor **radon** gas.

You are here: [EPA Home](#) » [Air](#) » [Indoor Air](#) » [Radon](#) » [Publications](#) » A Physician's Guide

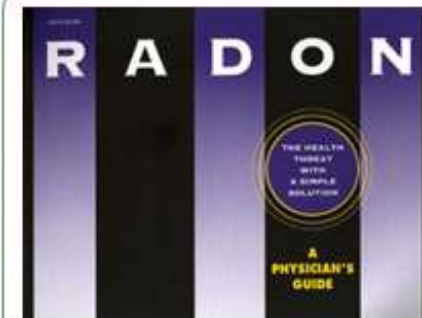
"A Physician's Guide"

Note: EPA no longer updates this information, but it may be useful as a reference or resource.

U.S. Environmental Protection Agency
Office of Air and Radiation
Indoor Environments Division (6609J)

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September 1993

Additional Indoor Air Quality resources on Asthma, Secondhand Smoke, Schools, Large



Reducing the Risks From Radon: Information and Interventions

A Guide for Health Care Providers

Focus Group Guided

PRIMARY CARE Providers

- Physicians
- Physician Assistants
- Nurse Practitioners

Question:

In the focus groups, which of the following statements did providers generally indicate was the most persuasive argument to reduce protracted radon exposure?

1. Radon is estimated to cause about 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003).
2. Protracted exposure to radon is one of the top 10 causes of cancer mortality in the United States.

1. Radon is estimated to cause about 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003).

2. Protracted exposure to radon is one of the top 10 causes of cancer mortality in the United States.

Cancer Mortality 2018

Cancer Type	Estimated U.S. Deaths in 2018 ^{4,5}
1. Lung and Bronchus	154,050
2. Colon and Rectum	50,630
3. Pancreas	44,330
4. Breast	41,400
5. Liver and Intrahepatic Bile Duct	30,200
6. Prostate	29,430
7. Leukemia	24,370
Radon-Induced Lung Cancer	21,100*
8. Non-Hodgkin Lymphoma	20,960
9. Urinary Bladder	17,240
10. Esophagus	15,850
11. Kidney and Renal Pelvis	14,970
12. Ovary	14,070
13. Myeloma	12,770

* The 21,100 radon-induced lung cancer deaths also are included in the estimate of lung and bronchus cancer deaths. The 21,100 estimate is based on risk estimates using U.S. demographic information from 1995.

1. Radon is estimated to cause about 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003).
2. Lung cancer in "never smokers" is one of the top 10 leading causes of cancer mortality in the United States

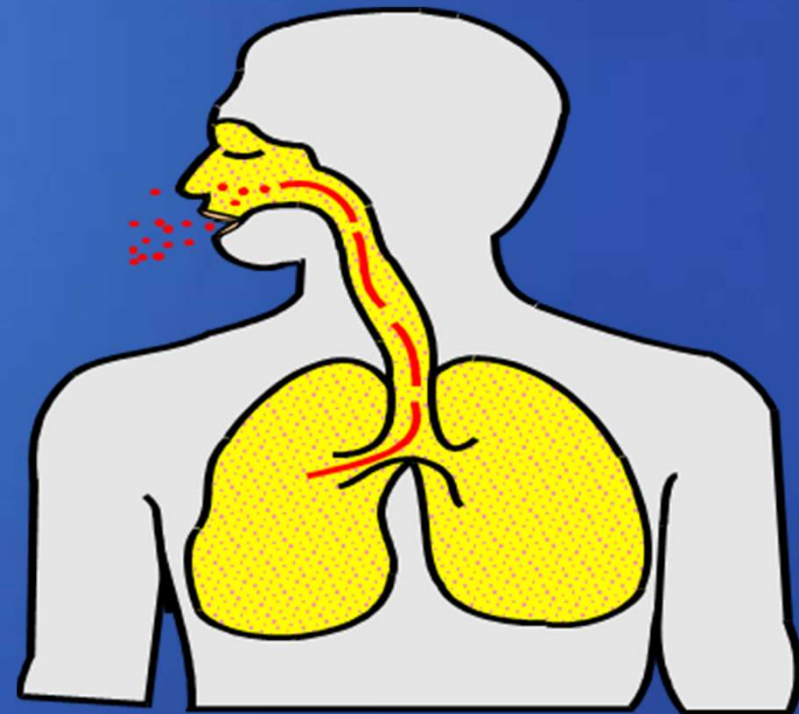
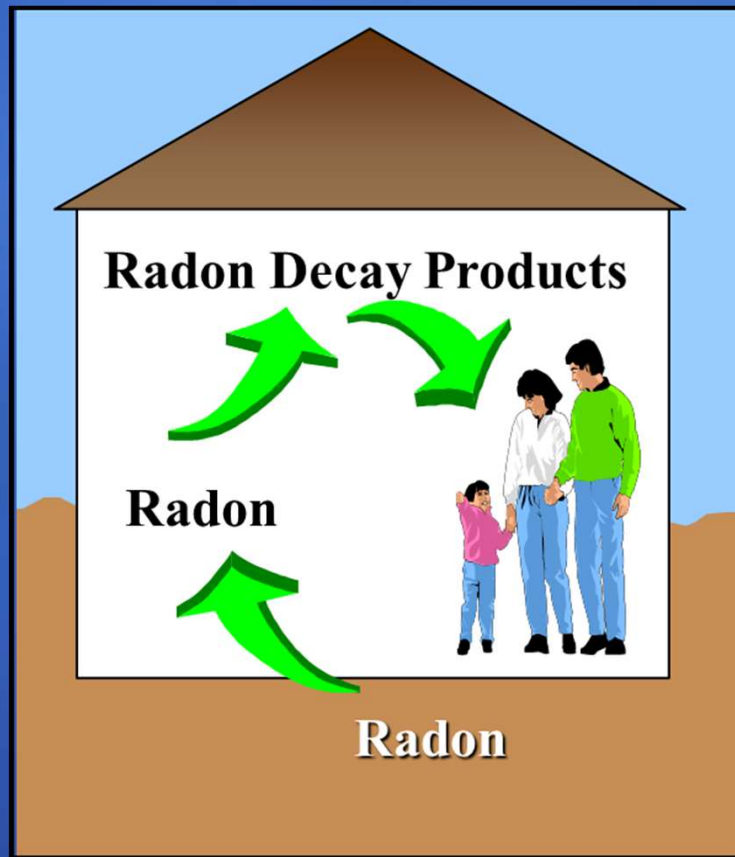
1. Radon is estimated to cause about 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003).

2. **Lung cancer in “never smokers” is one of the top 10 leading causes of cancer mortality in the United States**

Cancer Type	Estimated U.S. Deaths in 2016
Lung and Bronchus	158,080
Colon and Rectum	49,190
Pancreas	41,780
Breast	40,890
Liver	27,170
Prostrate	26,120
Leukemia	24,400
Lymphoma	21,270
Lung Cancer (never smokers)	20,000
Bladder	16,390

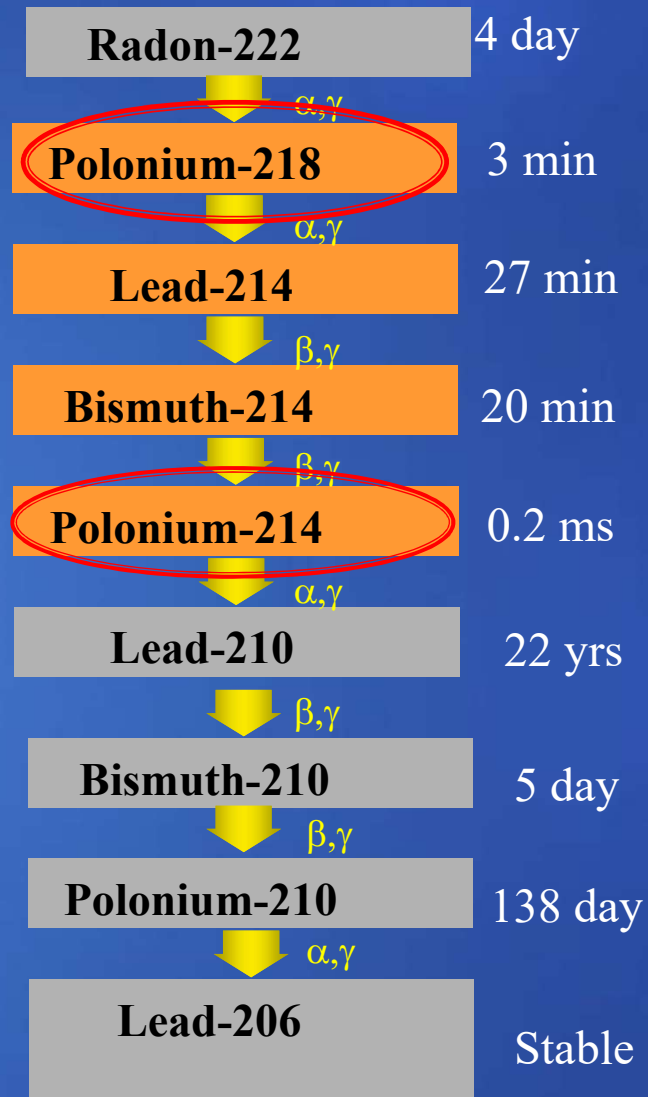
Radon Misperceptions

Radon induced lung cancer is caused by radon gas



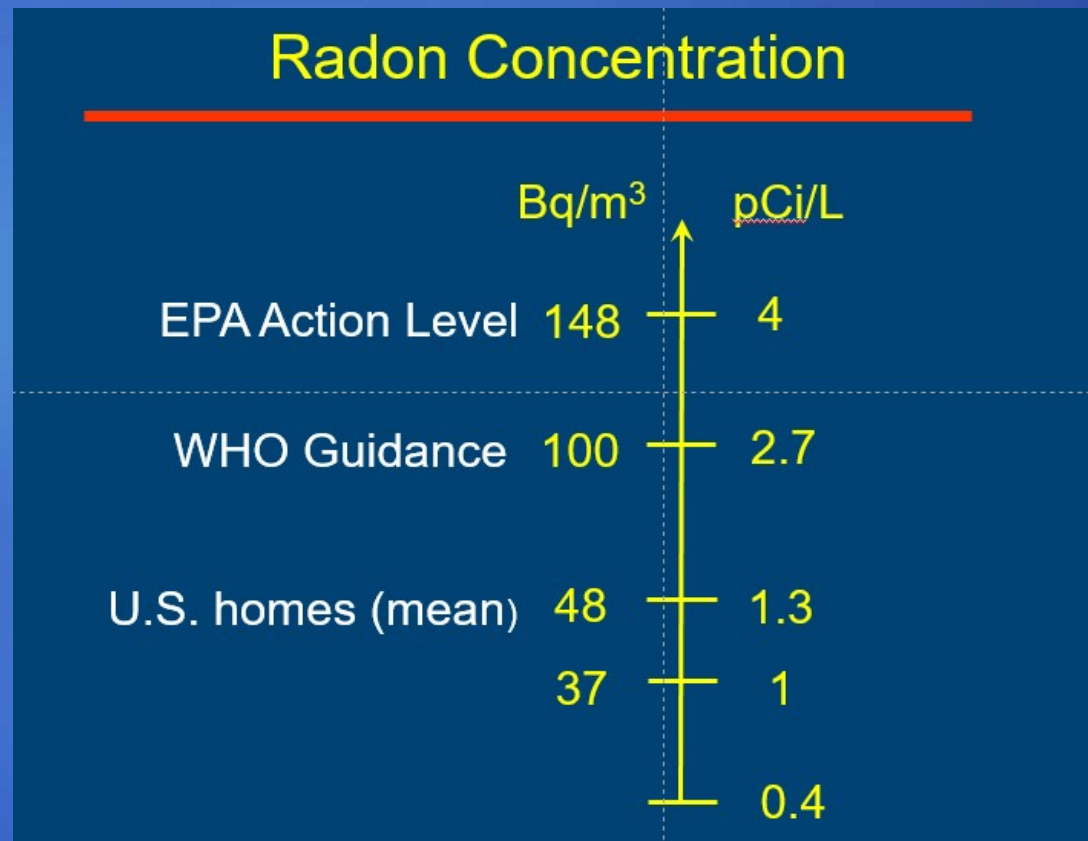
Radon Decay Products

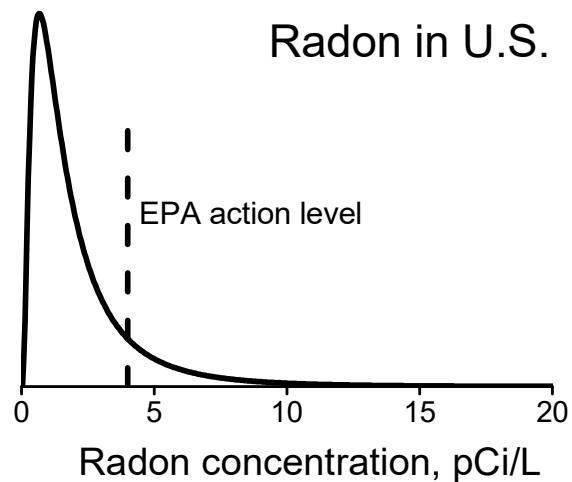
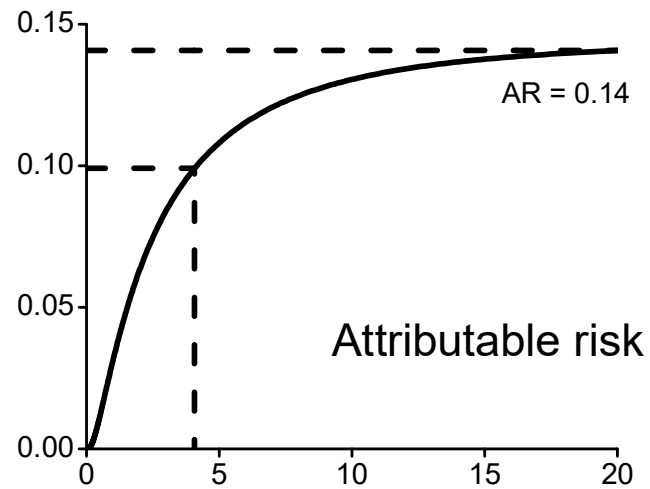
Po-218 and Po-214
deliver the majority
of radiation dose to
the lung.



Radon Misperceptions

The U.S. EPA Radon Action Level is a health-based guideline.



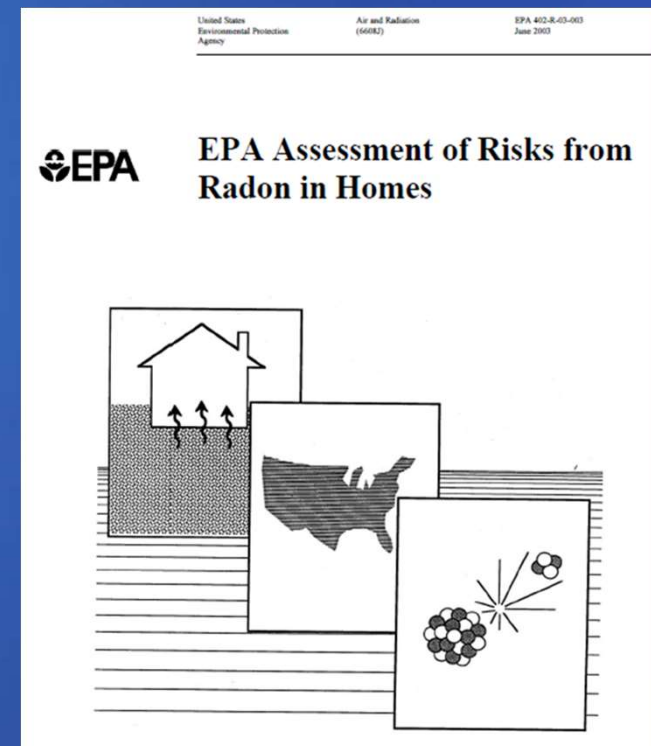


~ 1/3 of lung cancers
from protracted
radon exposure
occur above the EPA
action level

Radon Risk Misperceptions

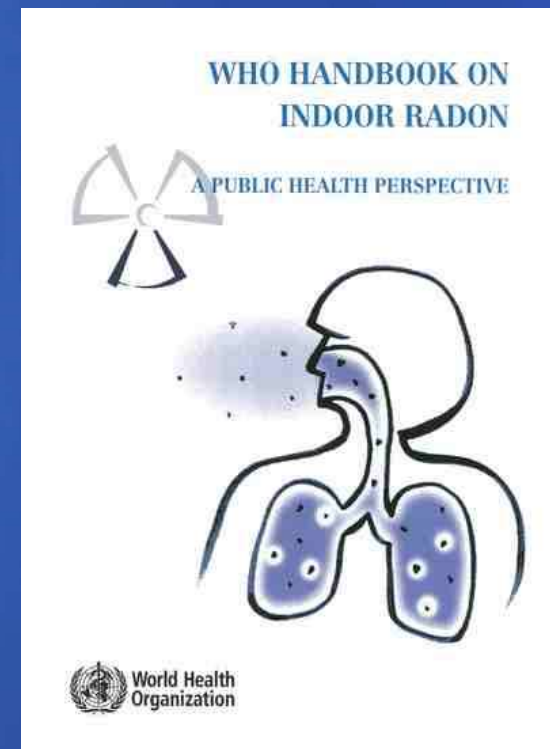
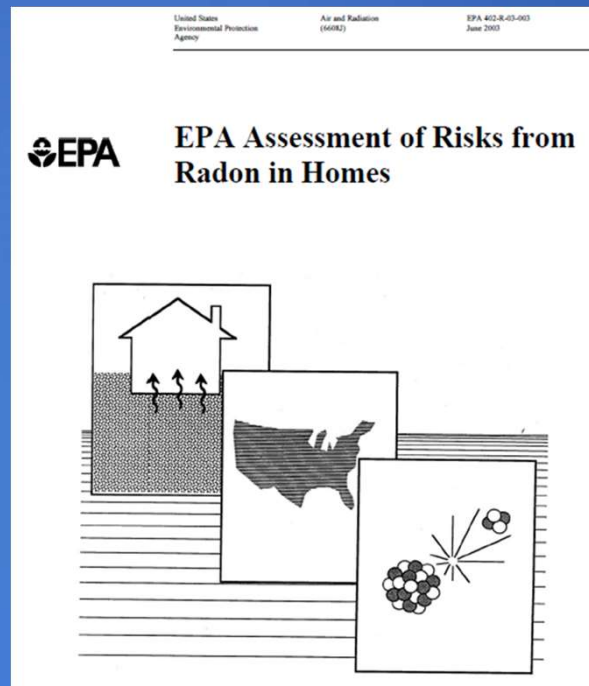
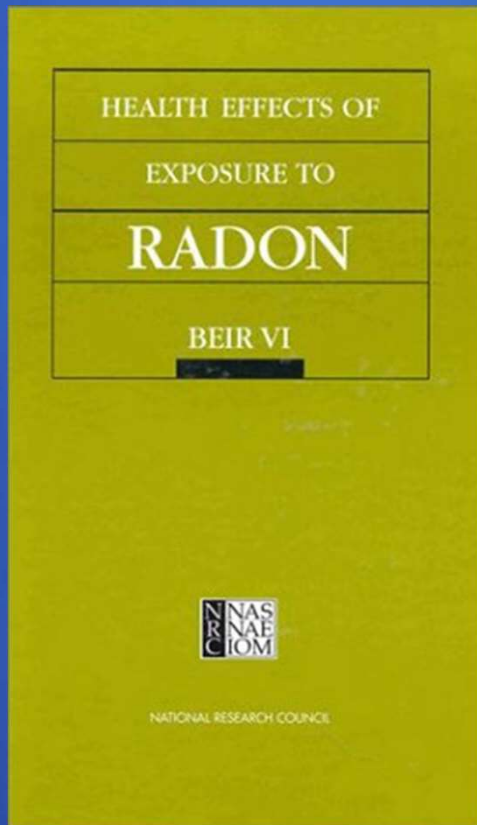
Mortality Risk estimates are based on old studies of underground miners exposed to high levels of radon gas.

“Based on its analysis, EPA estimates that out of a total of 157,400 lung cancer deaths nationally in 1995, 21,100 (13.4%) were radon related.”



Radon Misperceptions

Lack of consensus of risk posed by protracted radon decay product exposure.



Often not aware of more recent
case-control residential radon
studies



European Studies

13 Studies from 9 Countries

- Austria
 - Czech Republic
 - Finland [nationwide]
 - Finland [south]
 - France
 - Germany [eastern]
 - Germany [western]
 - Italy
 - Spain
 - Sweden [nationwide]
 - Sweden [never smokers]
 - Sweden [Stockholm]
 - United Kingdom
- Total 7,148 cases and 14,208 controls

North American Studies

- 7 Studies from 2 countries:
 - New Jersey
 - Winnipeg
 - Missouri I [non-smoking women]
 - Missouri II [women]
 - Iowa
 - Connecticut
 - Utah-South Idaho
- Total 3,622 cases and 4,966 controls

European Pooled Residential Radon Case-Control Studies

- Austria
- Czech Republic
- Finland [nationwide]
- Finland [south]
- France
- Germany [eastern]
- Germany [western]
- Italy
- Spain
- Sweden [nationwide]
- Sweden
- Sweden [Stockholm]
- United Kingdom

16% increased lung cancer risk at 100 Bq/m³
(or 2.7 pCi/L)

North American Pooled Residential Radon Case-Control Studies

- New Jersey
- Winnipeg
- Missouri I
- Missouri II
- Iowa
- Connecticut
- Utah-South Idaho

12% increased lung cancer risk at 100 Bq/m³ (or 2.7 pCi/L)

Radon Misperceptions

Often state, “We see very few patients in our clinics with lung cancer that have not smoked”. Lung cancer is pretty rare in people who have not smoked.

If treated as its own disease category, individuals who have never smoked and developed lung cancer rank as one of the top 10 causes of cancer mortality in the U.S.

Cancer Type	Estimated U.S. Deaths in 2016
Lung and Bronchus	158,080
Colon and Rectum	49,190
Pancreas	41,780
Breast	40,890
Liver	27,170
Prostrate	26,120
Leukemia	24,400
Lymphoma	21,270
Lung Cancer (never smokers)	20,000
Bladder	16,390

Other Focus Group Findings

Few providers have received training about the risks posed by protracted radon decay product exposure and do not see many chapters in text books or review articles highlighting its risk.

Updated Information on Radon

[Clin Chest Med.](#) 2012 Dec;33(4):681-703. doi: 10.1016/j.ccm.2012.07.001.

Occupational and environmental causes of lung cancer.

[Field RW](#)¹, [Withers BL](#).

⊕ Author information

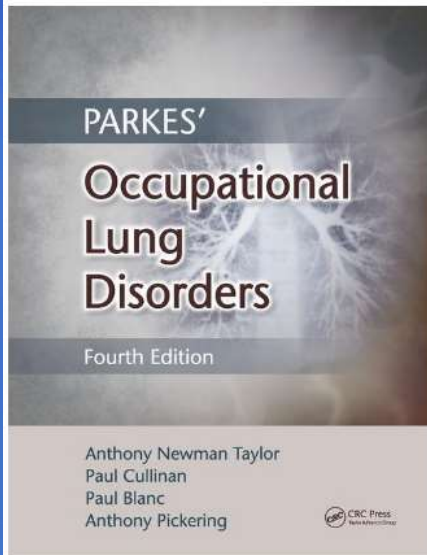
Abstract

Because tobacco smoking is a potent carcinogen, secondary causes of lung cancer are often diminished in perceived importance. The goal of this review is to describe the occurrence and recent findings of the 27 agents currently listed by the International Agency for Research on Cancer (IARC) as lung carcinogens. The IARC's updated assessments of lung carcinogens provide a long-overdue resource for consensus opinions on the carcinogenic potential of various agents. Supplementary new information, with a focus on analytic epidemiologic studies that has become available since IARC's most recent evaluation, are also discussed.

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PMID: 23153609 [PubMed - indexed for MEDLINE] PMCID: PMC3875302 **Free PMC Article**





Parkes' Occupational Lung Disorders, Fourth Edition

Anthony Newman Taylor, Paul Cullinan, Paul Blanc, Anthony Pickering

Book + eBook

\$159.96

VitalSource eBook access code and instructions will be provided within the print book.

October 17, 2016 by CRC Press

Reference - 547 Pages - 154 Color

ISBN 9781482240702 - CAT# K23340

Description

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Features

- Provides the definitive text on occupational lung disorders, with a practical, contemporary focus
- Contains the contributions of worldwide renowned editors, authors, and key opinion leaders
- Adds full color throughout with a wealth of digital ancillaries in the e-book

Summary

This authoritative text on occupational lung disorders builds upon the fundamentals, including clinical, epidemiological, and predictive approaches. It discusses interstitial and malignant diseases, airways diseases, and other respiratory issues, such as

21 Occupational Lung Carcinogens

R. William Field and Rafael E. de la Hoz

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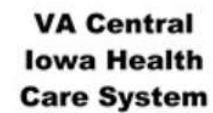
Have existing working relationships with Cancer Centers, Cancer Coalitions, and their partners.



National Comprehensive Cancer Control Program

- Since 1998, CDC's National Comprehensive Cancer Control Program (NCCCP) has helped reduce the burden of cancer in the United States. The NCCCP helps all 50 states, the District of Columbia, 7 tribal groups, and 7 U.S. Associated Pacific Islands/Territories to—
 - Create coalitions
 - Look at the cancer burden in their area
 - Prioritize proven strategies for cancer control
 - Create cancer plans and put them into action

Iowa Cancer Consortium members are health-care professionals, cancer survivors, researchers, legislators, public health representatives, caregivers, volunteers - *anyone* passionate about working together to conquer cancer. [Learn more about benefits of membership and how to join.](#)



Iowa Cancer Consortium

Also, very Interested in Low Dose CT Screening

Screening With Low-Dose CT Scan Reduces Deaths From Lung Cancer

John Eichorn

Published Online: Thursday, June 30, 2011



The *New England Journal of Medicine* today released results of a study showing that patients screened with low-dose helical computed tomography (CT) reduced their risk of dying of lung cancer by 20% compared with chest x-ray.

From August 2002 through April 2004, the National Lung Screening Trial (NLST) enrolled 53,454 people at 33

cancer centers in the United States who were at high risk for lung cancer. All enrollees were aged 55 to 74 years and had at least a 30 pack-year history of smoking. Although patients did not need to be current smokers, they must have stopped smoking within the previous 15 years. Those with a previous diagnosis of lung cancer, hemoptysis, or an unexplained weight loss >15 pounds in the preceding year were excluded.

Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement

Virginia A. Moyer, MD, MPH, on behalf of the U.S. Preventive Services Task Force*

Description: Update of the 2004 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for lung cancer.

Methods: The USPSTF reviewed the evidence on the efficacy of low-dose computed tomography, chest radiography, and sputum cytologic evaluation for lung cancer screening in asymptomatic persons who are at average or high risk for lung cancer (current or former smokers) and the benefits and harms of these screening tests and of surgical resection of early-stage non-small cell lung cancer. The USPSTF also commissioned modeling studies to provide information about the optimum age at which to begin and end screening, the optimum screening interval, and the relative benefits and harms of different screening strategies.

Population: This recommendation applies to asymptomatic adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years.

Recommendation: The USPSTF recommends annual screening for lung cancer with low-dose computed tomography in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. (B recommendation)

Ann Intern Med. 2014;160:330-338.

www.annals.org

For author affiliation, see end of text.

* For a list of the members of the USPSTF, see the Appendix (available at www.annals.org).

This article was published online first at www.annals.org on 31 December 2013.

The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without related signs or symptoms.

It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should

SUMMARY OF RECOMMENDATION AND EVIDENCE

The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. (B recommendation)

Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement

Recommendation

The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.



National Comprehensive Cancer Network
Your Best Resource in the Fight Against Cancer®

The National Comprehensive Cancer Network guidelines recommend LDCT screening beginning at age **50** for individuals with at least **20 pack-years of exposure** if they have documented **high radon exposure**. Screening is not recommended once a person has not smoked for 15 years.

Since patients look to their health care provider for guidance on cancer prevention, LDCT screening interviews for eligibility presents a teachable moment to educate the public about the risks posed by smoking and radon even in cases where a person is not eligible for the screening.



Reducing the Risks From Radon: Information and Interventions

A Guide for Health Care Providers

New Guide for Health Care Providers!

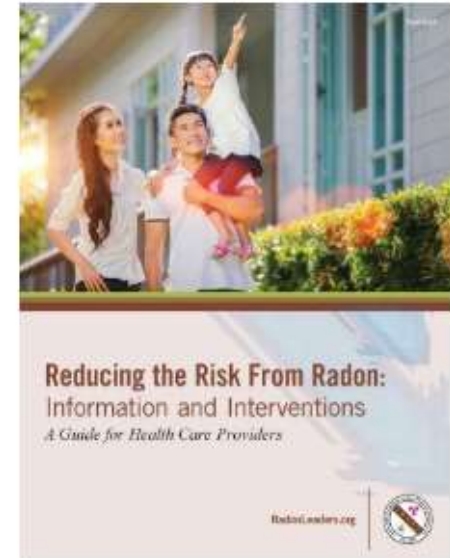
January 25, 2018 • RadonLeaders

The Conference of Radiation Control Program Directors, Inc., has developed a new guide for health care providers titled *Reducing the Risk From Radon: Information and Interventions*. This guide was designed to furnish health care providers with the information they need to reduce their patients' exposures to radon. Radon is estimated to cause about 21,100 lung cancer deaths per year and is the leading environmental cause of cancer mortality in the United States. This guide has the latest information on:

- Radon statistics and public health impact.
- The science behind the risk estimates.
- Radon testing and reduction.
- Sample guidance for use in health care settings.
- The role of health care providers in reducing the burden of radon-induced lung cancer.

This publication was supported in part by grant number XA-83576001 from the U.S. Environmental Protection Agency.

To explore this new resource and learn more about reducing radon exposure, visit <http://www.radonleaders.org/resources/reducingtheriskfromradon>.

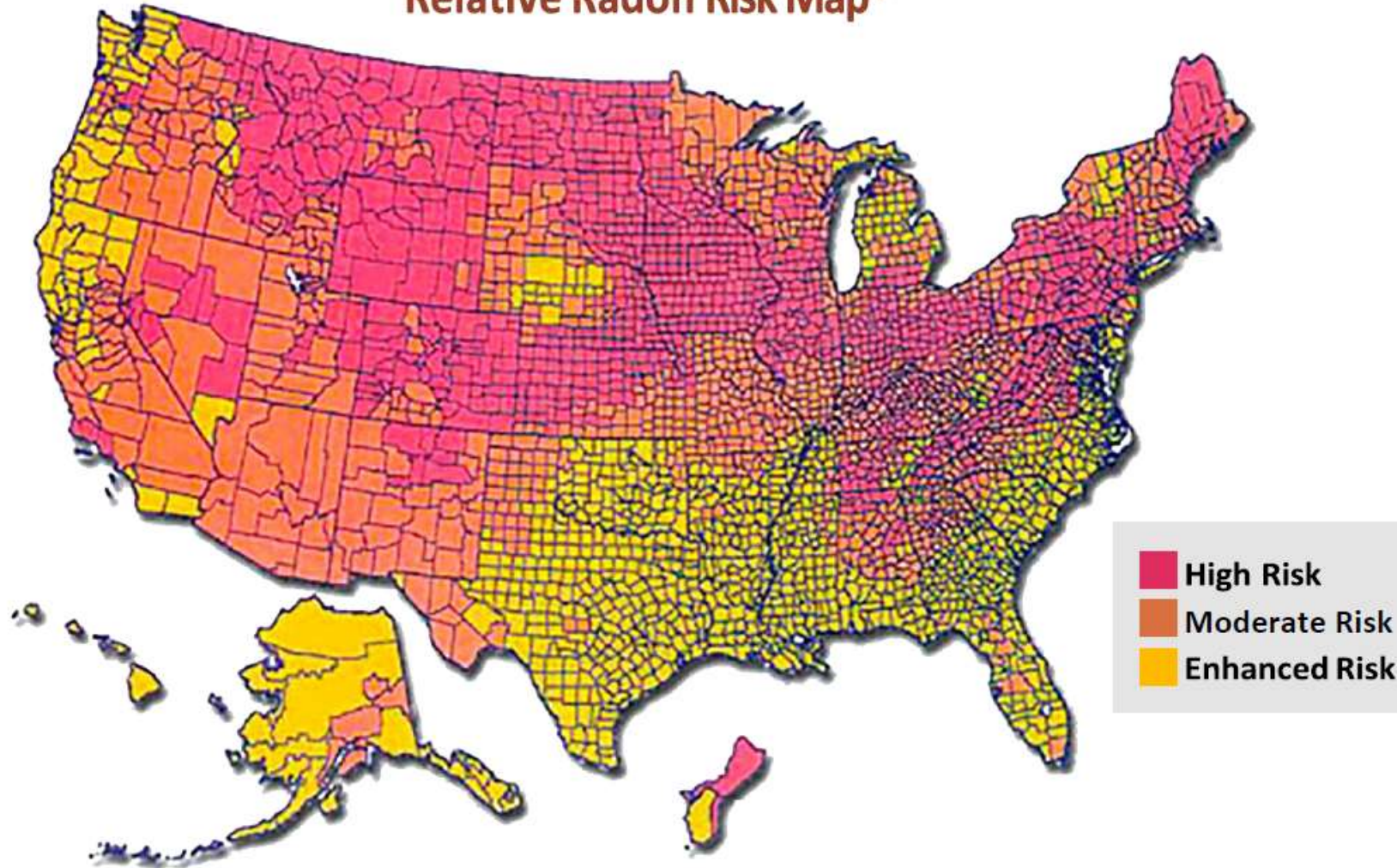


<http://www.radonleaders.org/resources/reducingtheriskfromradon>

This document serves as a reference guide on radon and contains the following sections:

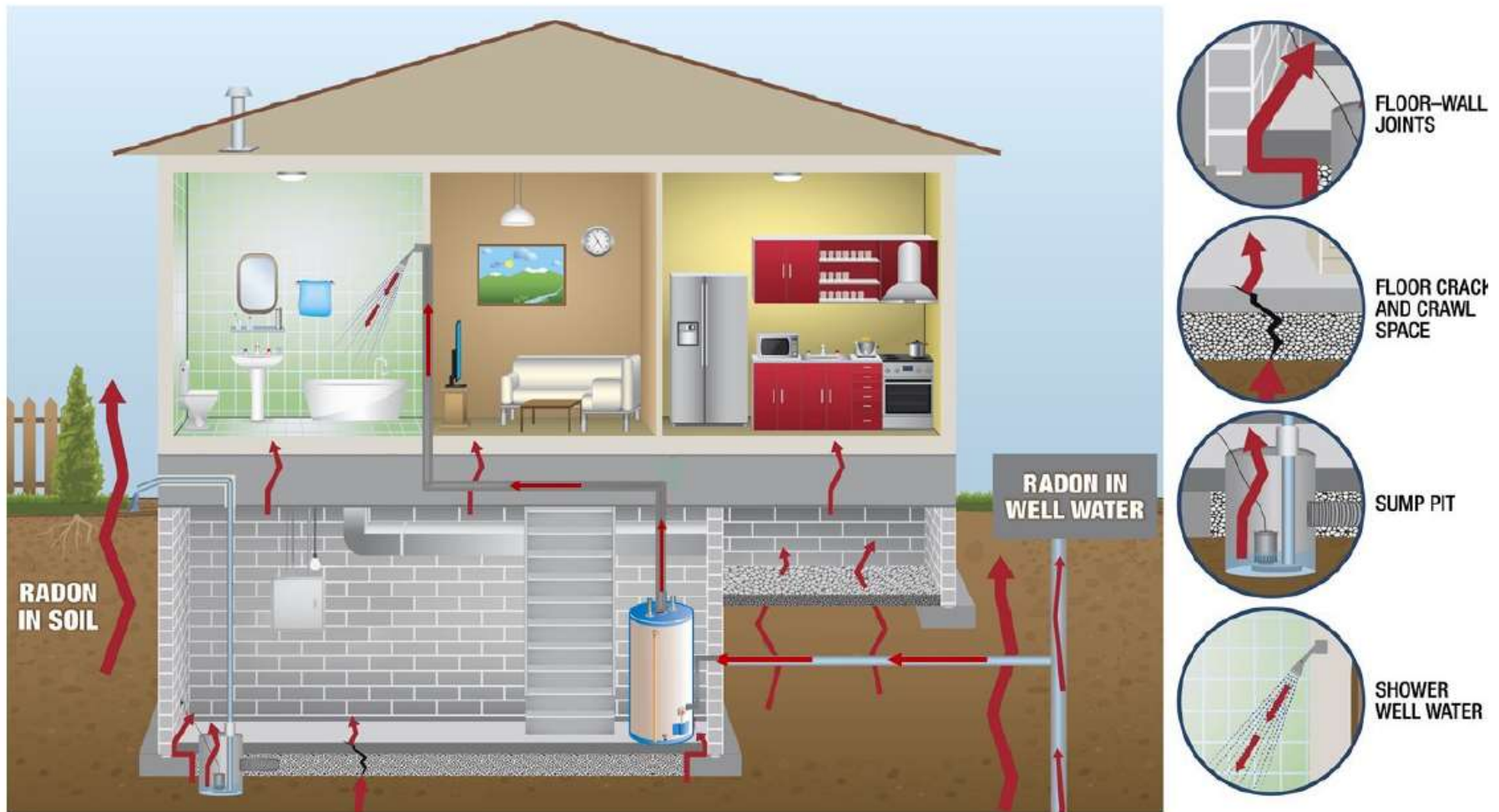
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Relative Radon Risk Map*



* The purpose of this map is to assist national, state and local organizations in their efforts to target their resources and to implement radon-resistant building codes. The EPA recommends that this map be supplemented with updated state specific radon data available from some state health departments. This map is not intended to be used to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones. All homes should be tested regardless of geographic location. State/local data should be used in determining where to implement codes. High radon concentrations frequently are found even in moderate and enhanced radon zones.

U.S. EPA map of radon zones in the United States and Guam.²



Radium, which naturally occurs in soils and rocks from the radioactive decay of uranium, produces radon gas that can move through the soil into a home or other building through these common entry points. Because the air pressure inside a home is often lower than the pressure in the soil around the foundation and basement floor slab, radon is easily drawn into a home due to these air pressure differences.

Reviewers disliked table with varying denominators

EPA Radon Risk

Lifetime Risk of Lung Cancer Death (Per Person) From Radon Exposure in Homes

RADON LEVEL (pCi/L)	NEVER SMOKERS	CURRENT SMOKERS	GENERAL POPULATION
20	36 out of 1,000	26 out of 100	11 out of 100
10	18 out of 1,000	15 out of 100	56 out of 1,000
8	15 out of 1,000	12 out of 100	45 out of 1,000
4	73 out of 10,000	62 out of 1,000	23 out of 1,000
2	37 out of 10,000	32 out of 1,000	12 out of 1,000
1.25	23 out of 10,000	20 out of 1,000	73 out of 10,000
0.4	73 out of 100,000	64 out of 10,000	23 out of 10,000

Estimated Risks at the EPA Action Level (4 pCi/L) **

Never Smokers 7/1000 | Smokers 6/100

**4 pCi/L are equivalent to 148 Bq/m³

Updated Table

Lifetime Risk of Lung Cancer Death From Radon Exposure in Homes

Risk Is Shown per 100,000 Individuals

RADON LEVEL (pCi/L)	NEVER SMOKERS	CURRENT SMOKERS	GENERAL POPULATION
20	3,600	26,000	11,000
10	1,800	15,000	5,600
8	1,500	12,000	4,500
4	730	6,200	2,300
2	370	3,200	1,200
1.25	230	2,000	730
0.4	73	640	230

Estimated Risks at the EPA Action Level (4 pCi/L)**

Never Smokers 7/1000 | Smokers 62/1000

**4 pCi/L are equivalent to 148 Bq/m³

Ability to update mortality table each year

Cancer Mortality 2018	
Cancer Type	Estimated U.S. Deaths in 2018^{4,5}
1. Lung and Bronchus	154,050
2. Colon and Rectum	50,630
3. Pancreas	44,330
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“The National Comprehensive Cancer Network guidelines recommend LDCT screening beginning at age 50 for individuals with at least 20 pack-years of exposure if they have documented high radon exposure.”

Radon Health Risks for Individuals Who Have Never Smoked

In addition to educating patients who are current or former smokers, a rigorous radon education effort is needed for patients who have never smoked tobacco products. A “never smoker” refers to an individual who has smoked fewer than 100 cigarettes in his or her lifetime. While health care providers encounter fewer lung cancer patients in their practice who never smoked as compared to those who have smoked, it is noteworthy that lung cancer in “never smokers” is in the top 10 causes of cancer mortality in the United States. Each year, 16,000 to 24,000 Americans die of lung cancer even though they have never smoked.¹⁰ Protracted radon exposure is the leading cause of lung cancer in individuals who have never smoked.⁷

“If considered its own disease category, lung cancer in individuals who have never smoked tobacco products ranks among the top 10 causes of cancer mortality in the United States. Radon is the leading cause of lung cancer among individuals who have never smoked.”

The Science Behind the Risk Estimates

The Science Behind the Risk Estimates

Radon is one of the earliest described human carcinogens. Carl Lebrecht Schefflers's seminal 1770 publication on the health of underground miners in Schneeberg and Annaberg, in present-day Austria, provided an early description of morbidity likely attributable to radon gas exposure.¹¹ However, it was not until the 19th century that the disease was established as lung cancer, and reports later in the 20th century linked radon exposure to lung cancer during underground uranium and hard-rock mining.¹¹ In 1988, the International Agency for Research on Cancer listed radon as a known human carcinogen.¹²

Radon is one of the most comprehensively investigated human carcinogens. Laboratory studies have documented that an alpha particle (e.g., from radon decay products polonium-218 and polonium-214) can cause both single- and double-strand DNA breaks and can produce indirect genotoxic and nongenotoxic effects on both traversed and neighboring nontraversed cells. Experimental animal exposures to radon clearly demonstrate that radon decay products cause lung cancer.⁷

Radon Testing

Radon gas can be measured easily through inexpensive do-it-yourself testing or by hiring a trained radon professional to perform the testing. Radon test kits can be purchased at local health departments, from state cancer consortia, online, or in hardware stores and other retail outlets. The kits also can be ordered by calling 1-800-SOS-RADON (1-800-767-7236). Testing for radon in houses is discussed in EPA's *A Citizen's Guide to Radon* and other EPA publications (see links at www.epa.gov/radon). Because of the serious health risk posed by radon, EPA recommends that all homes be tested for radon. Homeowners should take steps to lower radon levels indoors when levels are at or above EPA's radon action level of 4 pCi/L. However, because any radon exposure carries some risk, significant lung cancer risk reduction can be achieved by reducing radon concentrations to less than 2 pCi/L. EPA also recommends homeowners consider lowering radon levels when found to be between 2 and 4 pCi/L.

Radon Reduction

The primary method to reduce radon in a home is installing a vent pipe system and fan that pulls radon from beneath the building and vents it to the outside. This system, known as an active soil depressurization system, does not require major changes to a home. Radon reduction systems can be installed in homes with or without basements, as well as in homes with crawlspaces. Methods to reduce radon in homes are discussed in EPA's *Consumer's Guide to Radon Reduction* (see links at www.epa.gov/radon).

Sample Guidance for Use in Health Care Settings

The following content and questions are intended for patients, but health care providers also should answer them to evaluate their own risk of exposure to radon.


You may have heard that exposure to radon gas is the second leading cause of lung cancer. Your actual risk of lung cancer depends on the radon concentration and how long you have been exposed to the radon, as well as other risk factors—such as whether you have ever smoked. The current level of radon at which EPA recommends taking action is 4 picocuries of radon per liter of air (pCi/L). Technically, no level of radon exposure is safe because all exposure carries some risk; however, the EPA action level is the guideline used in the United States. EPA estimates that the average indoor and outdoor radon concentration in the United States is 1.3 pCi/L and 0.4 pCi/L, respectively.^{18,19} The U.S. Congress has set a long-term goal that indoor radon levels be no more than outdoor levels. While this goal is not yet technologically achievable in all cases, radon concentration in most homes today can be reduced to 2 pCi/L or less. EPA recommends considering lowering radon levels when found to be between 2 and 4 pCi/L.

The questions below may be useful for developing tailored guidance for patients.

The Role of Health Care Providers in Reducing the Burden of Radon-Induced Lung Cancer

Lung cancer's very high incidence rate and associated mortality rate are even more tragic because lung cancer usually is preventable.

This is why, in addition to encouraging patients to stop smoking, it is important for health care providers to educate their patients about radon and encourage radon testing in their homes. Pointing out that health care providers have some of the highest rates of radon testing and mitigation helps promote these actions among patients. Physicians, other health care providers, and medical institutions also should consider including questions about radon testing as part of the electronic medical record questionnaire. A brief encounter and resulting intervention can have lifelong implications for patients and their families. Because health care providers are the primary advisors on health and disease prevention, they are in a unique position to play a vital role in informing the public about the serious risk posed by protracted radon exposure and in providing educational resources and contacts for radon testing and remediation methods for reducing elevated indoor radon levels.



Do you smoke? Yes No

If yes, how much per day? _____

If you are a former smoker, when did you stop? _____

Have you tested your home for radon? Yes No

Do you have a living will or advance medical directive? Yes No

Educational Resources

Educational Resources

Radon educational materials (resources, blogs, discussion forums) are available at www.radonleaders.org, an EPA-supported website that helps facilitate action and radon risk reduction. Additional information on radon testing and mitigation is available from radon offices operated by the Department of Public Health in most states; these offices can be found using EPA's search tool linked at www.epa.gov/radon or by calling the National Radon Hotline at 1-800-SOS-RADON (1-800-767-7236). Free educational fliers and brochures to prompt discussion between health care providers and patients, as well as educational videos and many of the scientific papers cited above, are available at www.canceriowa.org/breathingasier.

Interventions to Reduce the Burden of Radon-Related Lung Cancer

- ✓ Ask your patients if they have tested their home for radon. If they have not, inform them about the health risk posed by radon and urge them to test their home for radon.
- ✓ Add radon testing questions to the routine electronic medical record questionnaire.
- ✓ Team up with the Centers for Disease Control and Prevention (CDC)-funded comprehensive cancer control program in your state. These programs have aligned the priorities, goals and activities of cancer coalitions with practices that reduce radon-induced lung cancer: www.cdc.gov/cancer/dcpc/prevention/policies_practices/radon/what_cccp_can_do.htm.
- ✓ Provide information in your offices and clinics that promotes radon testing and mitigation; information can be obtained from the following sources:
 - Iowa Cancer Consortium—www.canceriowa.org/breathingasier
 - Online learning and action network—www.radonleaders.org
 - EPA—www.epa.gov/radon
 - CDC—www.cdc.gov/radon
 - State radon offices—www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information
- ✓ The USPSTF recommends annual LDCT screening for lung cancer in adults ages 55 to 80 who have a 30-pack-year smoking history and currently smoke or have quit within the past 15 years. For individuals who do not have lung cancer or do not qualify for screening, interviews for LDCT screening eligibility represent teachable moments to discuss efforts to reduce lung cancer risk, such as testing their homes for radon.
- ✓ Share information about the health risks of protracted radon exposure with other health care providers. For example, encourage your colleagues to participate in the discussion forums at www.radonleaders.org, where they can learn about the experiences of other health care providers regarding radon and find links to the research that provides the scientific foundation for radon risk estimates.

Availability of Guide

Radon Leaders -

<http://www.radonleaders.org/resources/reducingtheriskfromradon>

The following videos explain how asking this important question could save lives:



Website: <http://breathingeasier.info>

Medical Organizations



**American Academy of
Family Physicians**

American Family Physician®

Editorial on radon risk for their journal
that includes “180,000 loyal readers”.
Anticipated publication: September 2018

American Academy
of Pediatrics



AAP is interested in distributing the Radon Guide as well as updating the AAP's existing radon information.



AAMMC

Association of
American Medical Colleges

The AAMMC works to ensure that the education of all learners—medical students, residents, and practicing physicians—meets the highest standards to keep pace with the changing needs of patients and the nation's health care system.

Agreed to provide the Guide both through their MedEdPORTAL Public Health Collection and their bi-monthly newsletter, “Population Health Connect”.

Trust is essential in developing long-term working relationships with Health Care Provider organizations.

Trust is a fragile dynamic that requires commitment and sustained effort.

Many of these organizations of health care providers have an environmental disease working group and members of that group are open to educational efforts concerning radon.

Next Steps – Development of Continuing Educational Credits for Health Care Providers



Reducing the Risks From Radon:
Information and Interventions
A Guide for Health Care Providers



Do you ask your patients if they've tested their homes for radon?

"Educating patients about the risk, and promoting the use of radon test kits, is something everyone can do and should do."

- Charles Lynch, M.D., Ph.D.

"I remember him putting his face in his hands. He was sitting next to me out in his waiting room, and he just said, 'Why don't physicians know about this?'"

- Gail Orcutt, Pleasant Hill

"I want physicians personally to test their homes. We can really have an influence if we can get people to test. As physicians, we can model the behavior that we'd like our patients to follow."

- Timothy Vermillion, D.O.

Watch a video to learn how asking this important question could save lives:



(12-minute version)

Download educational fliers to hang in clinic or exam rooms:

Iowa-Specific Fliers (click images below to view and print)



National Fliers (click images below to view and print)



<http://www.canceriowa.org/BreathingEasier.aspx>

Acknowledgements

The Conference of Radiation Control Program Directors, Inc. (CRCPD) is a nonprofit, non-governmental professional organization that promotes consistency in addressing and resolving radiation protection issues, encourages high standards of quality in radiation protection programs, and provides leadership in radiation safety and education.

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Questions?

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