



Love Your Lungs: Early Detection Saves Lives

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2021 USPSTF Lung Cancer Screening Guidelines

Clinician Summary of USPSTF Recommendation Screening for Lung Cancer

March 2021



What does the USPSTF recommend?



Adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years:

- Screen for lung cancer with low-dose computed tomography (CT) every year.
- Stop screening once a person has not smoked for 15 years or has a health problem that limits life expectancy or the ability to have lung surgery.



To whom does this recommendation apply?

Adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. (See below for definition of pack-year.)



What's new?

The USPSTF has revised the recommended ages and pack-years for lung cancer screening. It expanded the age range to 50 to 80 years (previously 55 to 80 years), and reduced the pack-year history to 20 pack-years of smoking (previously 30 pack-years).



How to implement this recommendation?

- 1. Assess risk based on age and pack-year smoking history:** Is the person aged 50 to 80 years and have they accumulated 20 pack-years or more of smoking?
 - a. A pack-year is a way of calculating how much a person has smoked in their lifetime. One pack-year is the equivalent of smoking an average of 20 cigarettes—1 pack—per day for a year.
- 2. Screen:** If the person is aged 50 to 80 years and has a 20 pack-year or more smoking history, engage in shared decision making about screening.
 - a. The decision to undertake screening should involve a discussion of its potential benefits, limitations, and harms.
 - b. If a person decides to be screened, refer them for lung cancer screening with low-dose CT, ideally to a center with experience and expertise in lung cancer screening.
 - c. If the person currently smokes, they should receive smoking cessation interventions.

How often?

- Screen every year with low-dose CT.
- Stop screening once a person has not smoked for 15 years or has a health problem that limits life expectancy or the ability to have lung surgery.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone.
Clinicians should understand the evidence but individualize decision making to the specific patient or situation.

Previous Guidelines: 2013

Update of Previous USPSTF Recommendation

This recommendation replaces the 2013 USPSTF recommendation on screening for lung cancer. In 2013 the USPSTF recommended annual screening for lung cancer with 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 (abbreviated as A-55-80-30-15).²³ For this updated recommendation, the USPSTF has changed the age range and pack-year eligibility criteria and recommends annual screening for lung cancer with LDCT in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years (A-50-80-20-15). Abbreviations for screening recommendations are expanded in the [Box](#).

As in the 2013 recommendation, the USPSTF recommends that 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.

Guideline updates:

- Decreased screening age from 55 to 50-80 years
- Decreased pack-year smoking history from 30 to 20

Importance of LDCT Screening

- **Lung cancer is the second most common cancer and the leading cause of cancer death in the US**
 - In 2020, an estimated 228,820 persons were diagnosed with lung cancer, and 135,720 persons died of the disease
 - The most important risk factor for lung cancer is smoking. Smoking is estimated to account for about 90% of all lung cancer cases
 - Increasing age is also a risk factor for lung cancer, median age of diagnosis of lung cancer is 70 years
 - Lung cancer has a generally poor prognosis, with an overall 5-year survival rate of 20.5%
 - Early-stage lung cancer has a better prognosis and is more amenable to treatment

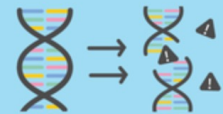
How does smoking cause cancer?

1) Cigarette smoke contains over **5,000 different chemicals**, at least **70 cause cancer**.



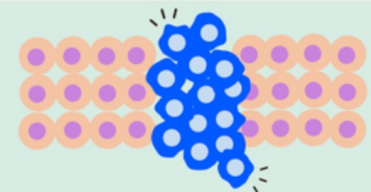
2) When smoking, harmful chemicals **enter our lungs** and affect the entire body.

3) These chemicals **damage our DNA**, including parts that protect against cancer.



4) Some chemicals make it **harder for cells to repair DNA damage**.

5) DNA damage in our cells can build up and **lead to cancer**.



Practice Considerations

Assessment of Risk

- Smoking and older age are the two most important risk factors
- African American men have a higher incidence of lung cancer than White men, and AA women have a lower incidence than White women

Screening Tests

- LDCT has high sensitivity and reasonable specificity
- Not recommended: sputum cytology, chest radiography, and measurement of biomarker levels

Treatment & Interventions

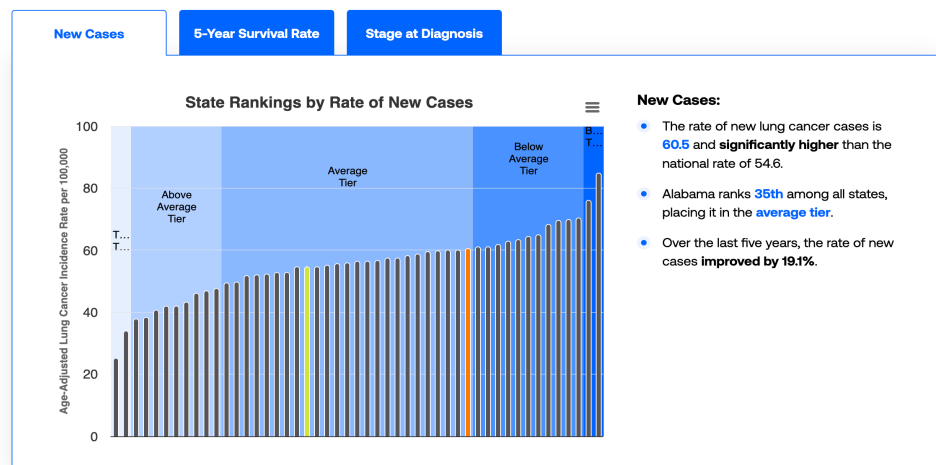
- Surgery, chemotherapy, radiation therapy, targeted therapies, immunotherapy, or combinations of these treatments

Implementation of Lung Cancer Screening

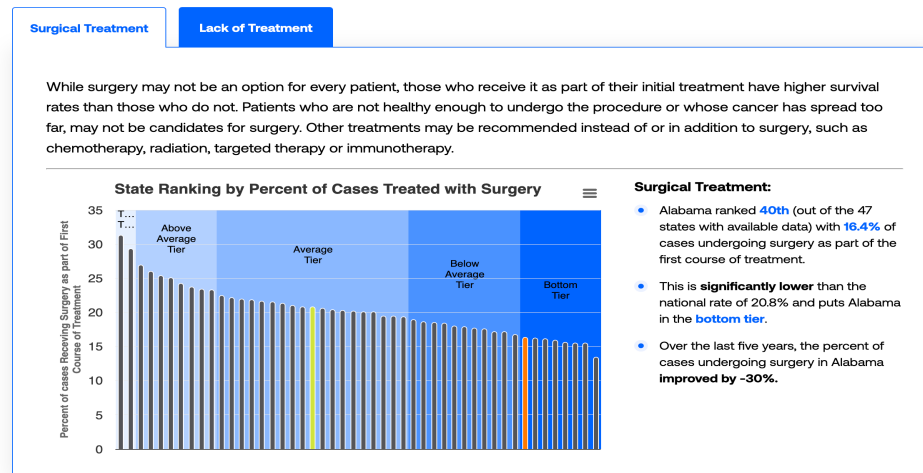
- In Alabama, **4.4%** of those at high risk were screened in 2023, which was not significantly different than the national rate of **4.5%**

American Lung Association's "State of Lung Cancer" 2023 Reports

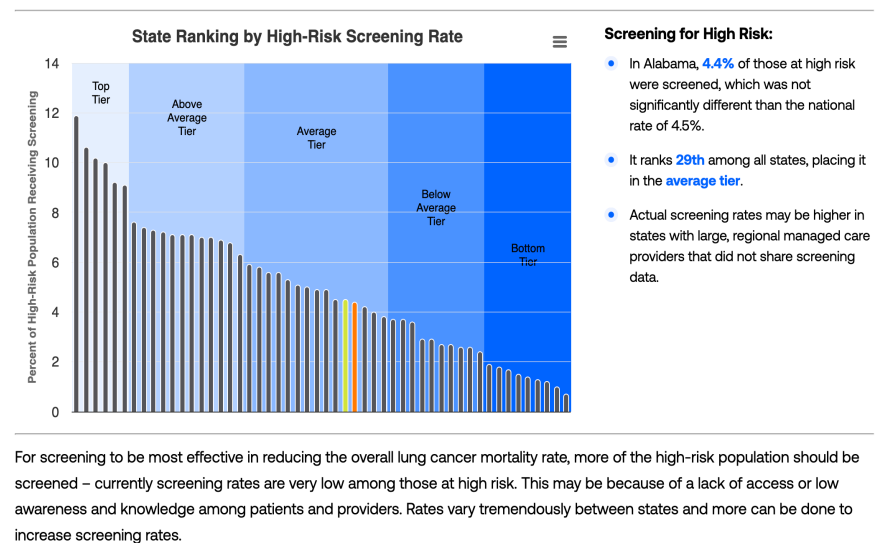
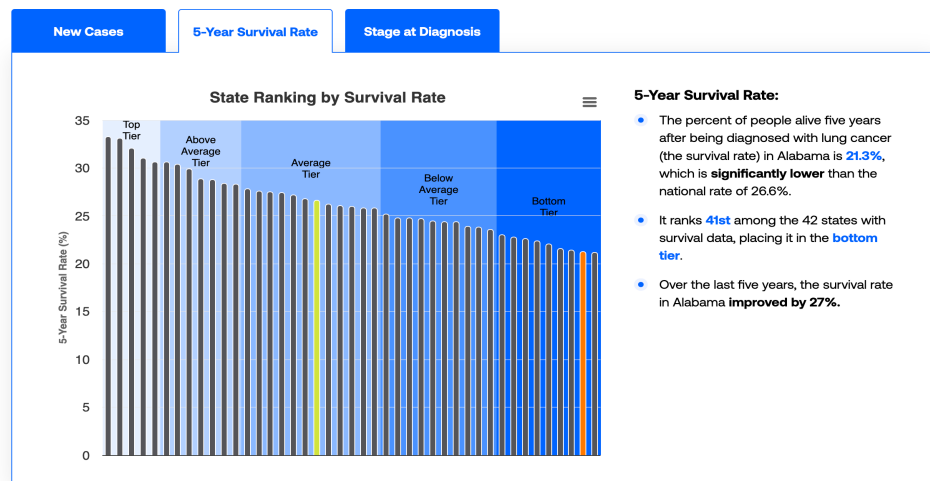
Lung Cancer Rates



Lung Cancer Treatment



Lung Cancer Rates



Improving Racial Inequities in Lung Cancer Outcomes in the Greater Huntsville African-American Community

INTRODUCTION

- In March 2021, the United States Preventative Services Task Force (USPSTF) made new recommendations for lung cancer screening:

Population	Recommendation
Adults aged 50 to 80 years who have a 20 pack-year smoking history and currently still smoke or have quit in the past 15 years	The USPSTF recommends annual screening for lung cancer with LDCT in adults aged 50 to 80 years who have a 20 pack-year 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.

- In 2021 a review of lung cancer screening data at Huntsville Hospital showed African-Americans were screened at a disproportionately low rate: 10.8% screenings were African-American and 89.2% were white. It was also identified that African-Americans were diagnosed with more advanced stages of lung cancer than white patients.
- African-Americans are disproportionately burdened by cancer and face greater obstacles to cancer prevention, detection, treatment, and survival, including systemic racial disparities that are complex and surpass the obvious connection to cancer (American Cancer Society, 2024).

OBJECTIVES

- Identify racial disparities that prevent African-American patients from recommended cancer screenings.
- Understand the role of the nurse navigator in increasing lung cancer screening rates.

METHODS

- Through a collaborative partnership, Huntsville Hospital and the University of Alabama in Huntsville College of Nursing developed an interventional approach to establish best practices for navigating patients to lung cancer screening in the Greater Huntsville African-American Community.
- Navigation programs have been shown to increase screening rates, raise compliance with follow-up, shorten time to treatment initiation, improve quality of life, increase patient satisfaction, and lead to improved patient outcomes (Shusted et al., 2019).
- The nurse navigator identified barriers to patient screening and worked with patients and their families to resolve barriers.



RESULTS

- African-American lung cancer screening rates increased from 10.2% in 2021 to 14.4% in 2023 during the implementation of the nurse navigator program.
- This demonstrates a 4.2% increase in lung cancer screening in the African-American population in our community. This exceeded our goal of 12%.
- The nurse navigator identified and resolved screening barriers, leading to completion of screenings.



CONCLUSIONS

- Our goal was to increase the number of African-American patients screened while reducing racial disparities in cancer outcomes. We believed this increase would improve earlier detection rates, leading to improved health outcomes.
- The nurse navigator identified and resolved barriers to patient screening, leading to an increase in the number of African-American patients screened for lung cancer.
- Due to successful outcomes, we believe this project could be implemented hospital-wide, or scaled to additional practices or larger populations.

REFERENCES

- American Cancer Society. (n.d). *Cancer disparities in the black community*. Retrieved January 30, 2024 from <https://www.cancer.org/about-us/what-we-do/health-equity/cancer-disparities-in-the-black-community..html>
- Shusted, C. S., Barta, J. A., Lake, M., Brawer, R., Ruane, B., Giamboy, T. E., Sundaram, B., Evans, N. R., Myers, R. E., & Kane, G. C. (2019). The Case for Patient Navigation on Lung Cancer Screening in Vulnerable Populations: A Systematic Review. *Population health management*, 22 (4), 347-361. <https://doi.org/10.1089/pop.2018.0128>

ACKNOWLEDGEMENTS

- This project was funded by the Society to Improve Diagnosis in Medicine (SIDM) and implemented at two Huntsville Hospital primary care clinics.

Project Findings

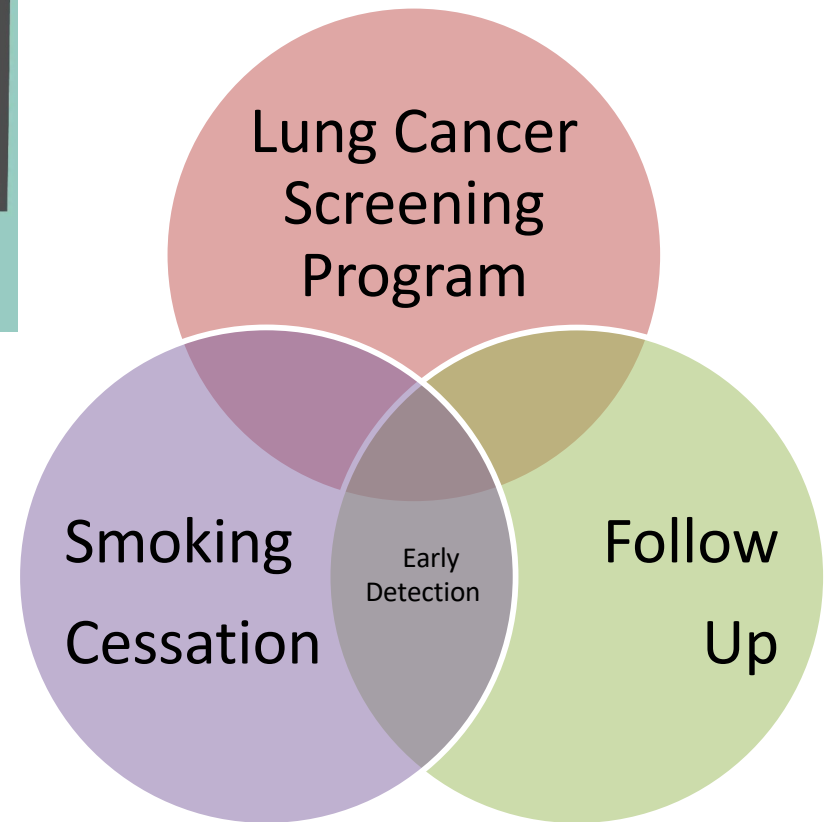
Clinic findings

- Patients received LDCT order and strong provider recommendation, but did not schedule screening
- LDCT was ordered by provider, but patient was not contacted to schedule screening
- Patients scheduled their screening, but due to copay costs did not complete screening
- Patient barriers identified by the Nurse Navigator: educational, financial, transportation

Community Findings

- Orion Juneteenth Heritage Celebration Event June 2023: Community Outreach Booth
 - Patients approached us and stated they have a PCP, currently meet screening criteria, but have never received a LDCT screening order
 - Family members and loved ones wanted information to give to family members who met criteria
- Community Health Fairs
 - Same as above, plus..
 - Interest in financial opportunities from grant funding
 - Patients met criteria, but did not have a PCP

What Can We Do?



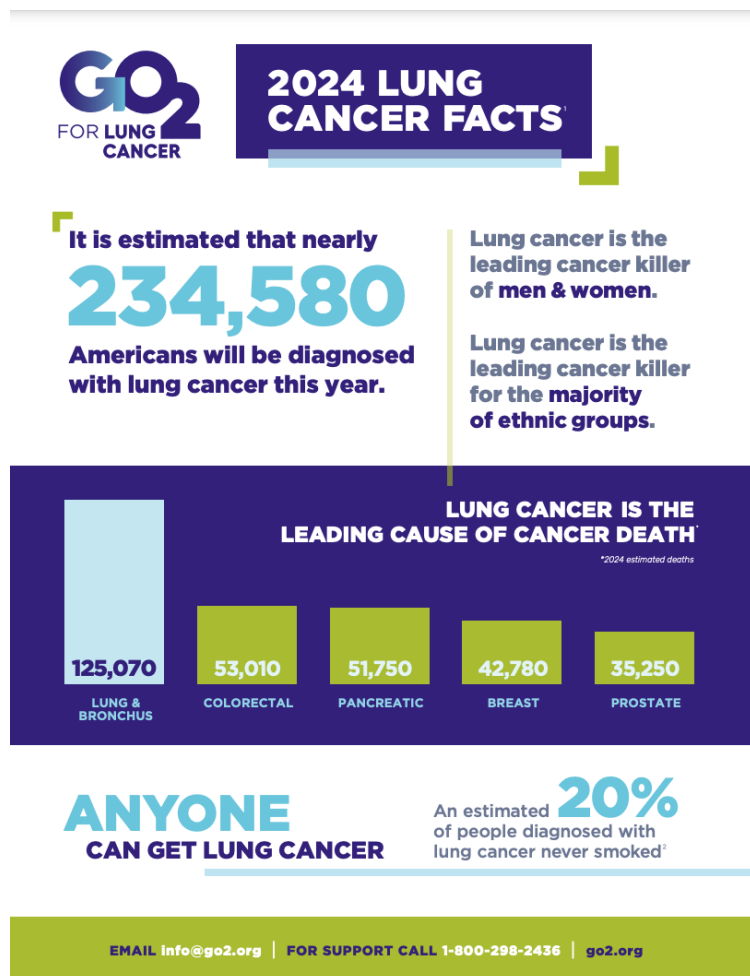
What Can We Do?

- **Identify patients who meet screening criteria**
- **Start the conversation about screening**
- **Provide patient education and strong provider recommendation**
- **Place LDCT screening orders**
- **Follow up on screening orders**
- **Provide smoking cessation education at every visit**
- **Utilize LDCT and smoking cessation resources**



<https://go2.org/what-is-lung-cancer/lung-cancer-facts/>

- Lung Cancer Fact Sheets free to download online:



Lung Cancer Fact Sheets

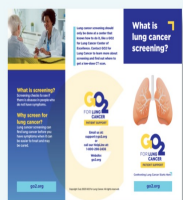


<https://store.go2.org/>

Lung Cancer Educational Materials

Store sign in

Browse our library of free educational materials. All materials are written in plain language and are easy to understand. You can download them instantly or add items to your cart to receive free print copies by mail.



What is Lung Cancer Screening?

Trifold

Updated July 2023

Explains the screening process, why it's important, and how to get started.

Download

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Understanding Lung Cancer Screening

Booklet

Updated February 2024

Describes lung cancer screening, how it works, why it's important, and answers common questions.

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Understanding Lung Nodules

One Page

Updated April 2024

Explains what lung nodules are, their features, and possible follow-up steps.

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Why Quit Now?
A resource about
lung screening
and health



go2.org

GO2 Patient Support Services Support for Everyone Impacted by Lung Cancer

We put people living with and at risk for lung cancer at the center of everything we do. From finding care to staying informed and building your resources, we are your community. As your friends, your guides, your advocates, your support system, **GO2 is your go-to.**

2

go2.org

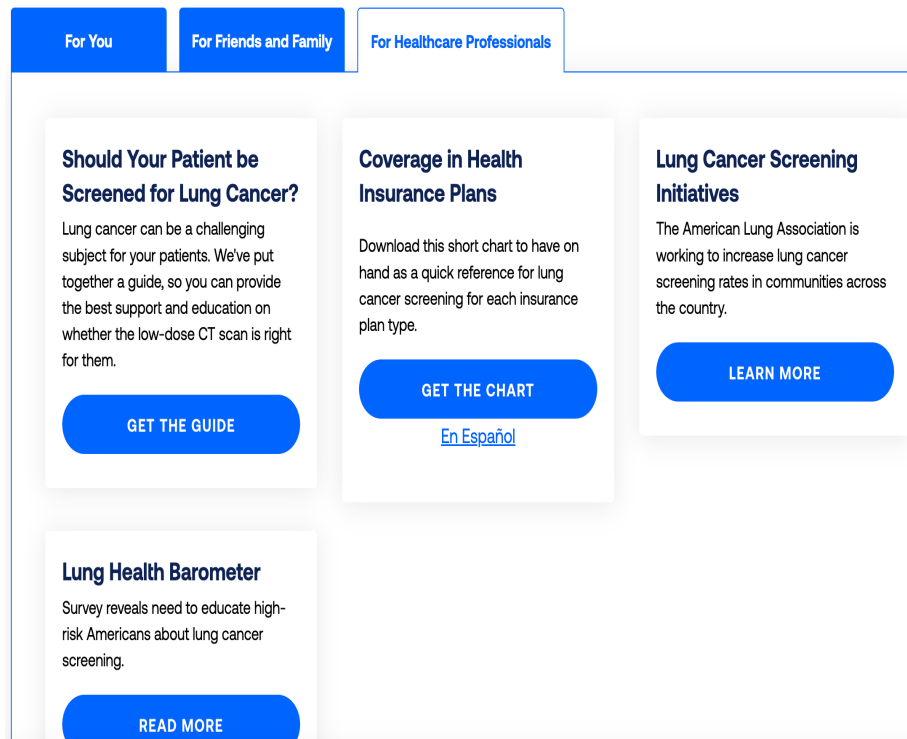
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Why quit now? 3

<https://www.lung.org/lung-health-diseases/lung-disease-lookup/lung-cancer/screening-resources>

You may have many questions when considering screening for lung cancer. These resources can help you understand lung cancer screening.



For You **For Friends and Family** **For Healthcare Professionals**

Should Your Patient be Screened for Lung Cancer?
Lung cancer can be a challenging subject for your patients. We've put together a guide, so you can provide the best support and education on whether the low-dose CT scan is right for them.
[GET THE GUIDE](#)

Coverage in Health Insurance Plans
Download this short chart to have on hand as a quick reference for lung cancer screening for each insurance plan type.
[GET THE CHART](#)
[En Español](#)

Lung Cancer Screening Initiatives
The American Lung Association is working to increase lung cancer screening rates in communities across the country.
[LEARN MORE](#)

Lung Health Barometer
Survey reveals need to educate high-risk Americans about lung cancer screening.
[READ MORE](#)

Additional ALA resource links:

- Saved by the Scan:
<https://www.lung.org/lung-health-diseases/lung-disease-lookup/lung-cancer/saved-by-the-scan>
- Quit Smoking:
<https://www.lung.org/quit-smoking>
- Is Lung Cancer Screening Right For Me:
<https://www.lung.org/getmedia/9f9c3528-c634-474d-a0ab-a2f011c92500/lung-cancer-screening-is-it-right.pdf>



NATIONAL
**LUNG
CANCER**
SCREENING
DAY

National Lung Cancer Screening Day

November 9, 2024

The Next Life Saved May Be Yours



Huntsville Hospital will host a free screening event on Saturday, November 9th for those who are uninsured or have financial barriers



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- American Cancer Society. (2023). *Cancer disparities in the black community*. Retrieved January 30, 2024 from <https://www.cancer.org/about-us/what-we-do/health-equity/cancer-disparities-in-the-black-community.html>
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