

Screening for Lung Cancer

The US Preventive Services Task Force (USPSTF) recently published recommendations on screening for lung cancer.

What Is Lung Cancer?

Lung cancer is an abnormal growth of lung tissues and is the leading cause of cancer death in the US. Smoking and older age are the biggest risk factors for lung cancer. It is estimated that smoking accounts for 90% of all lung cancer cases. Symptoms of lung cancer include cough (sometimes with bloody phlegm), shortness of breath, and chest pain. Some people have no symptoms, especially in the early stages.

Early detection of lung cancer is important because surgery to remove part of the lung can be curative in early stages. Other treatments for lung cancer include chemotherapy, radiation therapy, and immunotherapy. The best way to prevent lung cancer is to not smoke or to stop smoking.

What Tests Are Used to Screen for Lung Cancer

For the purposes of this recommendation, screening for lung cancer is performed via **low-dose computed tomography (LDCT)** of the lungs. Other screening tests such as chest x-ray have not been proven to be beneficial.

What Is the Patient Population Under Consideration for Screening for Lung Cancer?

This recommendation applies to adults aged 50 to 80 years who have a 20-pack-year or greater smoking history and currently smoke or have quit within the past 15 years.

What Are the Potential Benefits and Harms of Screening for Lung Cancer?

The goal of screening for lung cancer is to catch it at an early stage, when surgical cure is still possible. In its later stages, the prognosis for lung cancer is poor compared with many other cancers. The higher risk a person is at for developing lung cancer (based largely on cumulative years of smoking history), the more potential benefit there is of screening. For high-risk individuals, there is good evidence that LDCT decreases the chance of dying of lung cancer.

There are potential harms of screening for lung cancer. There can be false-positive results—finding nodules or masses in the lungs that are not cancer but that need continued monitoring or further invasive procedures (such as biopsy). Waiting 6 months to a year for a repeat scan while possibly having cancer can produce significant

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Lung cancer is a leading cause of cancer deaths in the United States. Cigarette smoking accounts for 90% of lung cancer cases.



Population

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



USPSTF recommendation

The USPSTF recommends yearly screening for lung cancer with low-dose CT in adults aged 50 to 80 years who have a 20-pack-year or more smoking history and currently smoke or have quit within the past 15 years.

Screening should stop 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.

anxiety. There is also a possibility of overdiagnosis (finding and treating a nonaggressive cancer that would not otherwise have caused problems), as well as some risk of repeated radiation from LDCT, although the magnitude of these potential harms is unknown. As a result, shared decision-making between patients and clinicians is important when discussing lung cancer screening.

How Strong Is the Recommendation to Screen for Lung Cancer?

The USPSTF concludes with moderate certainty that annual screening for lung cancer with LDCT is of moderate net benefit in persons at high risk of lung cancer based on age, total exposure to tobacco smoke, and years since quitting.

FOR MORE INFORMATION

US Preventive Services Task Force
https://www.uspreventiveservicestaskforce.org/uspstf/topic_search_results?topic_status=P

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Author: Jill Jin, MD, MPH

Author Affiliation: Associate Editor, *JAMA*.

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