

Does Your Patient Qualify for Lung Screening?

Lung Cancer Statistics

Information is power, and with power there is change. Statistics show **that lung carcinoma is the number one source of cancer-related deaths globally.** However, knowledge gaps regarding prevention, screening and indications inhibit prompt intervention. Many oncology organizations are asking the question, “How do we improve the cancer-related mortality rate?” Lung cancer prognosis is poor with only 19% of lung cancer patients surviving more than five years from time of diagnosis. **Early detection is the number one plan.**

Low-dose computed tomography explained

Low-dose computed tomography (LDCT) is a prognostic screening that uses x-ray imaging to provide clinicians with high-quality, detailed pictures of the lungs. It is a painless procedure that takes minutes to complete. **This lung screen promotes early detection of lung cancer.** Cancer found during the early stages of development is **more treatable.**

Who should be recommended for LDCT?

Using LDCT for screening purposes has shown a **20% decrease in lung cancer-related deaths** when compared to chest x-ray screening. However, according to a retrospective study at Mercy Catholic Medical Center, knowledge gaps among clinicians are prevalent, causing missed opportunities for early detection. According to the Centers of Disease Control and Prevention (CDC), annual lung screening is recommended for the following people:

- Those 50-80 years of age **AND**
- Those who have a 20 pack-year or more smoking history **AND**
- Those who smoke heavily now or quit smoking within the past 15 years

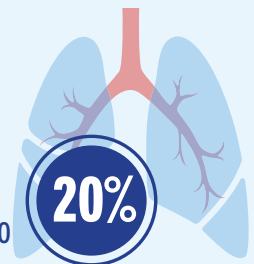


Key Takeaways

- Lung cancer is the primary cause of cancer-related deaths worldwide, and prognosis continues to be poor.
- Early detection of lung cancer shows promise in decreasing the mortality rate for lung cancer patients. Low-dose computed tomography (LDCT) is a more effective prognostic screen than the common chest x-ray.
- Our Healthy Person Program ensures patients and physicians are informed of radiology results. This multidisciplinary team is a valuable, collaborative resource for physicians.
- Improving the knowledge gap of LDCT for patients and physicians is vital in early detection, prompt intervention and decreased mortality rates linked to lung cancer.

Catching lung cancer

early can decrease mortality rates by up to



New technology is making that possible with a pain-free **Low-Dose CT Lung Cancer Screening.**



It is important to note that a “pack-year” is defined by the CDC as a year in which the patient smokes an average of one pack a day for a year. Therefore, a **20 pack-year would mean that the individual has smoked an average of 365 packs per year for twenty years.** This is not to be confused with 20 packs per year.

Since 85% of lung cancer incidences are related to cigarette usage, most screening is done for patients with a history of smoking. However, LDCT should also be considered for patients presenting with additional risk factors, such as the following:

- Radon or occupational carcinogen exposure, such as asbestos, arsenic and diesel fumes
- History of cancer or lymphoma
- Family history of lung carcinoma
- Previous diagnosis of COPD or pulmonary fibrosis

Risks of LDCT

As with all screening, physicians are constantly evaluating the benefits versus the risks. Innovation in testing promotes healthy living, acknowledgment of reality and improved long-term outcomes.

However, there are times when excessive testing could be more harmful than beneficial. The indications for all procedures and testing must be evidence-based, ensuring a net benefit to the patient.

1. **False positives** result in unnecessary follow-up tests or procedures.
2. **Elevated radiation exposure** gives rise to procedure-related risk factors.
3. **Overdiagnosis** lowers treatment thresholds without proven benefits.

Cessation of lung screening

Lung screening is recommended for adults at risk for lung cancer due to age and smoking history. However, as previously mentioned, **there comes a time when the risks outweigh the benefits** even for these individuals. It is recommended to cease lung screening under the following conditions:

- Those older than 81 years of age
- Those who have not smoked for 15 years or more
- Those whose comorbidities cause an unwillingness or inability to undergo cancer treatment

Why is lung screening underutilized? And what are we doing about it?

In 2019, the most recent survey by the CDC regarding lung and bronchus cancers, 221,097 new cases were reported in the United States alone. In the same year, 139,601 of those people died from this cancer.

It is clear to see that early detection with prompt intervention would promote improved mortality rates. Though some insurance companies are not yet covering this test, **Medicare provides patients access to this scan after cancer screening counseling.** So why is screening for lung cancer underutilized?

In the retrospective study previously mentioned, a couple observations shine light on the problem. It was reported that patient education and adherence rates were suboptimal. Many clinicians did not know who qualified for the screen, so LDCT was not frequently offered. When the patient did receive the lung scan, many missed follow-up appointments. After hiring a care coordinator, adherence to screening went from 22% to 65%. **Re-emphasizing the benefits and indications of lung screening to both physicians and patients is vital to promote preventive care.**

The Healthy Person Program

Our hospital is proud to offer the “Healthy Person Program,” in conjunction with our technology partner EON, to provide evidence-based follow-up using a first-of-its-kind approach to identify and track patients with incidentally found abnormal findings. It will allow for earlier diagnosis and treatment of potentially catastrophic diseases.

The technology behind this revolution in patient care is Computational Linguistics, a discipline of Artificial Intelligence (AI). It is used to extract abnormal findings and clinically relevant information from radiology reports and then triage high-risk patients for provider review. It captures incidental findings with up to 98.3% accuracy and 98.1% precision.

The Healthy Person Program is an invaluable asset for providers. **This multidisciplinary team approach helps providers in the decision-making process and decreases the likelihood of the risks of LDCT.**

- **The Lung Cancer Screening Program:** This program works with providers who have a patient who is a smoker or former smoker, and provides a low-dose CT screening that could save the patient’s life. It also identifies patients with incidental abnormal lung findings on X-rays, CT scans and MRIs that have been ordered for clinical reasons other than concern about potential lung cancer.

Conclusion

Much research is being done in the field of oncology. Harnessing the body’s healing abilities, improving immunity through gut health, and repurposing commonly used drugs like Aspirin, are all being explored in the fight against cancer. However, **the research is evident, and the guidelines are clear for lung screening.**

Now is the time to utilize the available resources to promote better outcomes for lung cancer. Recommending LDCT to patients who qualify and ensuring proper patient education is vital for early detection and timely intervention. Let’s partner together to make our communities healthier.

Would you benefit from receiving prompt notification of radiology results? Would another set of eyes be helpful for post-procedural, patient planning? Do you have questions about collaborating with our hospital and the Healthy Person Program?

To refer your patient for LDCT or learn more about our Healthy Person Program, simply refer your patient for hospital imaging.



Physician Outreach and Connections

Our growth and outreach liaisons provide support and information to referring physicians and other healthcare providers. 989.200.5606

Refer a patient:

Call: 906.449.3900
Fax: 906.449.1950

Learn more:

To learn more about our Healthy Person Program reach out to LPNT.HealthyPersonProgram@LPNT.net

Resources

- “Who Should Be Screened for Lung Cancer?” Centers for Disease Control and Prevention, 2022, Who Should Be Screened for Lung Cancer? | CDC.
- “The Importance of Cancer Prevention Research and its challenges.” NIH: National Cancer Institute, 2015, The Importance of Cancer Prevention Research and its Challenges – NCI.
- “Outcomes from LDCT screening for lung cancer in an underserved population: A quality initiative.” American Society of clinical Oncology, 2022, Program Guide – ASCO Meeting Program Guide.
- “Lung Carcinoma.” Merck Manual: Professional Version, 2022, Lung Carcinoma – Pulmonary Disorders – Merck Manuals Professional Edition.
- “Cancer Statistics at a Glance.” Centers of Disease Control and Prevention, 2021, USCS Data Visualizations – CDC.