**Lung Cancer Screening**

**Making the Right Decision for You**

A majority of lung cancers are advanced or have spread beyond the lungs at the time of diagnosis, which makes the disease more difficult to treat. Fortunately, new screening technology is now available, making early detection—and effective treatment—possible. To learn more, take a look at the answers to these commonly asked questions about lung cancer screening below.

**What is lung cancer screening?**

Lung cancer screening is a noninvasive evaluation of the lungs to look for signs of disease before symptoms arise. Radiologists use a specialized computed tomography (CT or “cat scan”) imaging device to take pictures of your lungs, which are then reviewed to determine if there are any signs of lung cancer. This is the only proven method for identifying the disease.

**Who should be screened for lung cancer?**

Lung cancer screening is recommended for those who are at high risk for the disease, but are not yet experiencing symptoms. If you meet the criteria below, you may be at high risk and should talk to your doctor about annual screening.

Current guidelines recommend CT lung cancer screening for patients who meet the following criteria:

**CRITERIA ONE**

- Ages 55 to 80
- 30 pack-years of smoking history
- Current smokers or individuals who quit less than 15 years ago

**CRITERIA TWO**

- Ages 50 or older
- 20 pack-years of smoking history
- Have one additional risk factor for lung cancer:
  - Exposure to radon, asbestos, silica, or other carcinogen
  - Personal history of lymphoma or a smoking related cancer, including head and neck cancer or bladder cancer
  - Family history of lung cancer

**Why should I be screened for lung cancer?**

Lung cancer is the leading cause of cancer deaths in the United States. Annual screening with CT scans can find lung cancers in their earliest stage, when the cancer is easier to treat. Results from the National Lung Screening Trial (NLST) showed that screening with low-dose CT scans can reduce the risk of death from lung cancer by 20 percent in current and former heavy smokers, compared to those who were screened using a chest X-ray.

**Why should I be screened at Duke?**

Accredited by the American College of Radiology, the Duke Lung Cancer Screening program provides access to the most advanced diagnostic screening tool available: low-dose CT scans, which are highly accurate and minimize the amount of radiation exposure to patients. If lung cancer is detected, you will have direct access to a multidisciplinary team of lung cancer specialists experienced in caring for patients at every stage of disease, from diagnosis to treatment and beyond. They are committed to providing the most advanced services, as well as comprehensive support and education for both patients and survivors.

**What happens if the test is positive?**

About 1 out of 10 screening CT scans will be “positive,” meaning there is an abnormal finding that could represent a cancer. Approximately 4 out of 100 patients with a positive screening study are found to have lung cancer. For those patients, screening is the first step in the comprehensive care provided by the Duke Cancer Center’s team of lung cancer specialists. If you are diagnosed with lung cancer, a personalized treatment plan will be developed by our experts to offer you the best course of care.

**How can I reduce my risk of developing lung cancer?**

Stop smoking. This is the most important step toward reducing your risk for lung cancer. Duke Cancer Center offers smoking cessation evaluation and counseling, so you’ll have the support you need to quit for life.
What are the risks of CT lung cancer screening?

CT screening for lung cancer is safe and noninvasive; however, there are some risks associated with the screening. As with every medical procedure, it’s important to weigh the risks and benefits prior to making a decision.

What is the cost of a CT lung screening?

Lung cancer screening is covered by private insurance for eligible patients age 55 - 80 years, and by Medicare for patients age 55 - 77 years. Please contact our providers to discuss your eligibility.

<table>
<thead>
<tr>
<th>RISKS</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radiation exposure</strong>&lt;br&gt;CT screening uses a low dose of radiation in order to produce images of the lungs. Cumulative radiation exposure, even in low doses, can damage cells, which may result in cancer later in life. However, the risk of developing a radiation-induced cancer is extremely low. To minimize the amount of radiation exposure to patients, Duke radiologists use a special low-dose protocol.</td>
<td><strong>Finding lung cancer in its earliest stage</strong>&lt;br&gt;Patients who received low-dose CT screening were diagnosed earlier in the course of disease than those who had a chest x-ray.</td>
</tr>
<tr>
<td><strong>False positives</strong>&lt;br&gt;The National Lung Screening Trial (NLST) found that approximately 25 percent of patients who have CT screening have a positive screen, meaning that a nodule is found in the lung. The vast majority of these nodules are benign (not cancer), which means that most positive screening studies will be a “false positive.” Additional testing is often necessary to determine which nodules represent lung cancer. Nine out of 10 of those with a “false positive” require follow-up imaging studies only; invasive procedures are rare but can lead to complications.</td>
<td><strong>Better chance of survival</strong>&lt;br&gt;The NLST showed a 20 percent reduction in lung cancer deaths after CT screening. Because lung cancer is caught earlier with CT screening, chances are higher for a complete cure. In contrast, advanced lung cancers are often inoperable and may only be treated with chemotherapy and/or radiation.</td>
</tr>
<tr>
<td><strong>False negatives</strong>&lt;br&gt;Occasionally, the signs of lung cancer are unclear or get overlooked. However, in the NLST, the false negative rate was less than 1 in 100.</td>
<td></td>
</tr>
</tbody>
</table>

Smoking Cessation Resources:

- [www.BecomeAnEx.org](http://www.BecomeAnEx.org)
- [www.cdc.gov/tobacco/quit_smoking](http://www.cdc.gov/tobacco/quit_smoking)
- [www.smokefree.gov](http://www.smokefree.gov)
- [www.dukehealth.org/treatments/cancer/cancer-support-services/quit-duke](http://www.dukehealth.org/treatments/cancer/cancer-support-services/quit-duke)

Please call 919-613-4318 for more information or to schedule your appointment.