



Understanding Lung Cancer Screening

Deciding whether or not to undergo lung cancer screening can be difficult. This information can help you decide if lung cancer screening is right for you.

What is Screening?

- Screening is testing for a disease in people who don't have symptoms of that disease.

Why Screen for Lung Cancer?

- Lung cancer is the leading cause of cancer death in the world. In the United States, about 25% of cancer deaths are due to lung cancer.
- The goal of low dose CT (LDCT) screening for lung cancer is to identify lung cancer early, before it has caused symptoms, when treatment is more likely to be successful (curative).
- The National Lung Screening Trial (NLST) proved that screening those at "high risk" for lung cancer saves lives, cutting the death rate from lung cancer by 20%.
- More recent trials performed in Europe have demonstrated similar and in some cases more favorable results.

Who Should Consider Lung Cancer Screening?

- Screening is not for everyone, particularly those considered to be at "low risk".
- The United States Preventative Services Task Force (USPSTF) recommends screening for those who meet the following criteria (updated March, 2021):
 - **Age:** 50-80. Note that Medicare covers screening for eligible beneficiaries aged 50-77.
 - **Smoking Status:** Current cigarette smokers and smokers who have quit within the past 15 years.
 - **Smoking History:** A minimum of 20 pack-years. A pack-year equals smoking 1 pack (20 cigarettes) per day for 1 year.

What are the Potential Benefits of Lung Cancer Screening?

- The primary benefit of screening is preventing death from lung cancer. About 1 in 300 people screened will have this benefit. *Early detection of lung cancer saves lives.*
- Other potential benefits of screening might include peace of mind if the screen result is “negative”, and reinforcement of positive lifestyle choices like smoking cessation.

What are the Potential Harms of Lung Cancer Screening?

- **Screen anxiety:** Some people who undergo screening experience stress or worry while waiting for results, or because of a recommendation for additional follow up for an exam result other than “negative”.
- **Additional Testing:**
 - About 8 of every 100 people screened have an “indeterminate” test result requiring a follow up LDCT in 6 months. Almost all of these exams will ultimately prove to be negative (not lung cancer).
 - Additionally, about 8 of every 100 people screened have a “suspicious” test result requiring further evaluation that may include a follow up CT in 1-3 months, a PET/CT, or invasive testing (such as a biopsy). Most of these exams will ultimately also prove to be negative (not lung cancer), although on average 1 or 2 lung cancers will be diagnosed in this group after the additional follow up or testing is completed.
 - This additional testing for suspicious abnormalities that does not result in a diagnosis of lung cancer is referred to as having a “**false positive**” result.
- **Diagnosis of lung cancer:** Although the goal of lung cancer screening is to find lung cancer at an early stage and cure it, some lung cancers will be found as a result of screening that are at a later stage and are therefore more difficult to treat or are potentially incurable.
- **Overdiagnosis:** Some lung cancers grow very slowly and pose very little risk of causing harm in a person’s lifetime. These are sometimes called “**indolent lung cancers**”.
 - Because it is generally not possible to identify which lung cancers will be indolent prior to therapy, most lung cancers are treated as if they are likely to be aggressive. This effect is called “**overdiagnosis**”, or “**overtreatment**”.
 - It is estimated that up to 1 in 5 lung cancers may be indolent.
- **Inability to detect lung cancer early:** No test is perfect. Not all lung cancers will be detected on screening LDCT.
 - Rarely, an abnormality will be present on a screening exam that is not correctly identified. In these cases, the diagnosis of lung cancer may be delayed. This is referred to as a “**false negative**” result.
 - Some lung cancers appear and grow very quickly between annual LDCT screens. They are called “**interval cancers**”, and they tend to be more aggressive and more difficult to treat successfully.
 - Importantly, a “negative” screen result does not prevent the development of lung cancer in the future.

- **Incidental findings:** About 1 in 10 people screened for lung cancer have abnormalities other than lung cancer detected on their exams that may require additional evaluation to determine their significance. These are called “**incidental findings**”.
- **Radiation exposure:** CT scanners are large specialty computers that use radiation to create detailed 3D images of the inside of the body. Radiation can cause cancer.
 - For lung cancer screening, the amount (dose) of radiation used is minimized (typically 1/4th- 1/10th that of a normal diagnostic chest CT). Your actual dose will vary depending on your size, but will always be minimized in keeping with the principal of “As Low As Reasonably Achievable” (ALARA).
 - Although the exact cancer risk from LDCT lung cancer screening (and any necessary follow up) is unknown, it is generally felt by experts to be significantly less than the risk of lung cancer itself in those eligible for screening.

What else should I consider?

- **Lowering your risk:**
 - Lung cancer screening is not a reason to continue smoking nor a replacement for stopping smoking. The best way to lower your risk of lung cancer is to quit smoking if you currently smoke.
 - Stopping smoking also reduces your risk of for developing heart disease, COPD, and certain other cancers, and will improve your quality of life.
 - To minimize your risk, you should not resume smoking if you previously quit.
- **Additional eligibility considerations:**
 - Lung cancer screening is for people without symptoms of lung cancer. If you have possible symptoms of lung cancer (such as a new cough that won't go away, a recent change in a chronic cough, coughing up blood, or weight loss without trying), please talk to your doctor immediately about further evaluation.
 - If you have major health problems that would prevent you from undergoing possible curative therapy if a suspicious abnormality is found, lung cancer screening may not be right for you.
 - If you are healthy enough, but not willing to undergo possible curative therapy if a suspicious abnormality is found, lung cancer screening may not be right for you.
 - For maximum benefit, lung cancer screening should be done every year until you no longer meet the criteria for screening.
- **Cost:**
 - Lung cancer screening is a fully covered service (no Co-Pay) for Medicare beneficiaries (ages 50- 77) who meet the Medicare eligibility criteria and who have a “Shared Decision Making” (SDM) visit with their ordering physician prior to having their initial LDCT lung cancer screen.
 - Lung cancer screening is also a covered benefit with no out of pocket expense under most private insurance plans for those who meet the USPSTF criteria .
 - As always, you should confirm your benefits prior to obtaining care.

I want to proceed with lung cancer screening. What do I do next?

Having reviewed this decision aid, talk to your doctor. Your doctor will further discuss the benefits and risks of lung cancer screening with you, and confirm your eligibility and willingness to undergo screening. If you are a current smoker and have decided to quit, your doctor can also provide you with smoking cessation resources at the same time.

If you are a Medicare beneficiary, you are required to have a “Shared Decision Making” (SDM) visit to discuss eligibility, benefits, risks, adherence to annual screening, and smoking cessation/abstinence with your doctor prior to undergoing your first lung cancer screen. For your comfort and safety, the SDM visit can be done via telehealth.

Once your eligibility has been confirmed, you will be provided with an order for the LDCT screening exam that you can schedule through one of our convenient NM locations:

- Downtown Chicago: 312.926.6366
- Western Suburbs: 630.933.5000
- Far West Suburbs: 815.748.2975
- Northern Suburbs: 847.535.8000
- Northwest Suburbs (Crystal Lake, Huntley, Woodstock): 815.334.5566
- Southern Suburbs: 708.827.2030