

LOW-DOSE CT SCREENING FOR LUNG CANCER

NOTE: Active smokers undergoing CT screening for lung cancer should enter a program to quit smoking. Screening is not an alternative to stopping smoking.

PURPOSE OF THE TEST: UAB Medicine offers lung cancer screening using low-radiation CT (computed tomography) technology. Research shows a clear benefit for CT lung-cancer screening among individuals who meet strict criteria. Patients and referring physicians should understand both the benefits and the potential for false positive results.

Among heavy smokers, heart disease and lung cancer are the major causes of death. A recent, large randomized control trial of [lung cancer screening](#), conducted by the [National Cancer Institute](#), included more than 50,000 patients and showed that annual chest CT screening can detect lung cancer sooner and can reduce the death rate from lung cancer by 20% in high-risk smokers age 55 and up.

In our judgment, the people who may benefit from annual CT screening meet these criteria:

- Age 55-77
- Cigarette consumption > 30/pack years
- Current smoker or quit < 15 years ago

BENEFITS OF SCREENING:

- Detection of lung nodules that may be cancers before symptoms appear, which leads to earlier treatment
- Detection of significant coronary artery calcification, which may indicate a higher risk for heart disease

POTENTIAL DISADVANTAGES:

- Many lung nodules detected from the CT scan are not cancerous, so follow-up CT scans and/or other tests may be needed to determine the presence of cancer

DO I NEED A REFERRAL?

This type of test requires a referral from a physician, to ensure proper participant selection and any necessary follow-up. All patients must be referred for the test by a physician after a shared decision-making appointment. It is important that a responsible health care provider manages follow-up care for patients with a positive test.

The patient and the referring physician must complete a lung cancer screening form. UAB Medicine physicians have this form in the electronic medical record system. **Non-UAB physicians should download the form [here](#) and fax the completed form to UAB Radiology at The Kirklin Clinic of UAB Hospital at (205) 731-6479.**

ABOUT THE EXAM: UAB Medicine is committed to reducing radiation exposure during lung cancer screenings, so we use a low-dose CT scan, with a radiation dose of about 1.5 mSv (millisieverts), which is roughly equal to half of the naturally occurring background radiation that a person receives living for one year at sea level. The exam does not require contrast (a special dye that is sometimes injected into the body as part of certain tests). Like mammography, CT screening should be done annually. Currently, CT screening for lung cancer is covered by Medicare and many private insurers. If the CT scan is abnormal, additional care may be covered by your insurance.

HOW TO PREPARE: We require that you have a personal physician who can manage any additional testing and follow-up care if an abnormality is found in the CT scan. The screening will not be performed without the contact information of a physician to whom the test results can be sent. Since smokers have a higher chance of lung infections, and infection can result in abnormalities in the CT scan that can mimic cancer, we recommend that the CT scan be delayed for 3-4 weeks if you had a fever, new cough, or any change in sputum production during the past 2 weeks.

WHAT TO EXPECT: When you contact us, we will determine your suitability for the screening, whether you have symptoms/signs that might indicate a recent lung infection, and that you have a personal physician (see above). The physician's office should send us the request for the CT scan, then you will be given an appointment for the exam. It may be possible to perform the CT scan on the same day of request, and no special preparation is required. You will be asked to lie on the CT table. The CT technician will determine the length of time it takes to complete the scan (usually less than 20 seconds) and will coach you to take a deep breath and hold it during the scan. Once you understand the procedure, the CT scan will be performed.

AFTER THE EXAM: Two radiologists will review the CT scan results. A written report will be sent to your personal physician and shared to your UAB Medicine Patient Portal account. The report will describe any abnormalities found in the scan. If the abnormalities are suspicious for cancer, the report will include clear and specific recommendations for follow-up care. If desired, you can discuss the CT report with your physician and/or radiologist. The CT exam report will be prepared by chest radiologists who have considerable experience in diagnosing lung cancer and heart disease.

TO SCHEDULE AN APPOINTMENT: Call UAB Radiology Scheduling at The Kirklin Clinic of UAB Hospital at (205) 731-9380.

REFERRING PHYSICIANS: Fax the completed lung cancer screening form to (205) 731-6479 ([download form here](#)).