

Lung Biopsy

Purpose of the procedure:

Lung biopsies are performed to sample abnormalities identified on chest imaging, usually to determine the presence or absence of cancer in the lung and the type of cancer, or sometimes for the identification of infections or other abnormalities where the diagnosis is not certain with non-invasive imaging. The study is frequently ordered by pulmonologists, thoracic surgeons, or oncologists.

How to prepare:

Prior to your lung biopsy you should refrain from eating the morning of the exam. You should take your regularly prescribed medications per your usual routine. Blood thinning medicines, such as Plavix or Coumadin, may need to be stopped several days before the exam. If your doctor thinks it is safe to do so, we recommend stopping Plavix 5 days before the procedure and stopping Coumadin three days before the procedure. If you are taking these types of medications, our scheduling nurse will contact you with instructions on when to discontinue these before the exam.

Lung biopsies in radiology are usually performed with local anesthesia. Although sedation is not typically needed, you may wish to have a family member or friend accompany you for comfort purposes.

Where to go:

Lung biopsies are performed on the 6th Floor of University Hospital, North Pavilion, either in the CT department or the Heart & Vascular Center. Please check in at the Heart & Vascular Center desk located on the 6th floor of North Pavilion and they will assist you to the appropriate area.

What to expect:

Once escorted into the Heart and Vascular Center, you will change into a gown in a private area where you may store personal belongings. Our nurse will briefly interview you and blood work will be performed to make sure you are not predisposed to excessive bleeding during the procedure. You will then be transported to either the CT department or fluoroscopy suite where the procedure will be performed. Before the procedure your doctor will discuss the procedure with you, describing the process and addressing any questions or concerns you may have.

The procedure team will then perform one of two "Time Outs" to verify that the correct procedure is being performed on the correct patient. Time out is an active two-way communication among all procedural team members that is consistently performed prior to all procedures to prevent medical error by conducting a final verification of correct patient, procedure and site. Your doctor will position you on the imaging table and identify the biopsy site. Depending upon the location of the abnormality in your lung you may be positioned on your back, stomach, or side. The second "Time Out" will then be performed to again make sure we are doing the correct procedure on the correct patient. The area of the biopsy will be prepped with a topical disinfectant and draped.

The skin site for the biopsy will then be anesthetized prior to the biopsy. The local anesthesia (numbing medicine) may cause minor discomfort (burning or stinging) for a few seconds as it is injected. Once the area is numb your doctor will then advance



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a needle into the abnormality under direct imaging guidance and verify that the biopsy needle is positioned appropriately. Several biopsy samples will then be taken through the same biopsy needle.

The procedure usually takes around 30-45 minutes and you will need to be able to lie still for this length of time on the imaging table. During the exam there will be several times you will need to hold your breath for approximately 5-10 seconds.

Complications may occur during the procedure. The most common complication that occurs is a pneumothorax, or 'dropped lung', which is when air collects inside the chest cavity but outside of the lung and causes the lung to collapse within the chest. Frequently this resolves with just observation in the hospital after the procedure. In approximately 5-10% of patients the lung continues to collapse and this requires the placement of a small tube within the chest to evacuate the air and allow the lung to re-expand. If a chest tube placement is required then you will need to be admitted to the hospital for a few days while the lung re-expands.

It is also common for people to cough up some blood during or shortly after the procedure, which should not be alarming. This almost always resolves with only observation in the hospital. Very rarely (in < 1% of cases) does this bleeding require blood transfusions or an emergency procedure to control.

Other complications, such as air entering the blood vessels and causing symptoms similar to a heart attack or a stroke, have been reported in the medical literature but are very, very rare, occurring in less than 0.1% of patients.

After the procedure:

After the procedure you will be observed for a variable length of time and discharged home. Usually patients are discharged within two hours after the procedure is complete. Occasionally patients may need to be monitored for several hours or admitted to the hospital if complications occur.

The biopsy specimen will be reviewed by the pathologist and the results are usually available to your referring doctor within one week. Your referring doctor will inform you of the results of your biopsy.

For more information:

For scheduling queries, call UAB Radiology scheduling specialist Tracie Bishop (205-975-7700) or Ernestine Hendrix (205-996-9442).

Thank you for choosing UAB Radiology!