

Lung needle biopsy

A lung needle biopsy is a method to remove a piece of lung tissue for examination. If it is done through the wall of your chest, it is called a transthoracic lung biopsy. A lung needle biopsy is performed when there is an abnormal condition near the surface of the lung, in the lung itself, or on the chest wall. Most often, it is done to rule out cancer. The biopsy is usually performed after abnormalities appear on chest x-ray or CT scan.

A chest x-ray or CT scan may be used to find the exact spot for the biopsy. If the biopsy is done using a CT scan, you may be lying down during the exam.

A needle biopsy of the lung may also be performed during [bronchoscopy](#) or mediastinoscopy.

You sit with your arms resting forward on a table. You should try to keep still and not cough during the biopsy. The doctor will ask you to hold your breath. The skin is scrubbed and a local pain-killing medicine (anesthetic) is injected.

The physician will make a small (about 1/8-inch) cut in the skin, and will insert the biopsy needle into the abnormal tissue, tumor, or lung tissue. A small piece of tissue is removed with the needle and sent to a laboratory for examination.

When the biopsy is done, pressure is placed over the site. Once bleeding has stopped, a bandage is applied.

A chest x-ray is taken immediately after the biopsy.

The procedure usually takes 30 - 60 minutes. Laboratory analysis usually takes a few days.

There are some risks involved with the procedure. Sometimes, a collapsed lung (pneumothorax) occurs after this test. A chest x-ray will be done to check for this. The risk is higher if you have certain lung diseases such as emphysema. Usually, a collapsed lung after a biopsy does not need treatment. However, if the pneumothorax is large or does not improve, a chest tube may need to be inserted to expand your lung.

In rare cases, pneumothorax can be life threatening if air escapes from the lung, gets trapped in the chest, and presses on the rest of your lungs or heart.

Whenever a biopsy is done, there is a risk of excessive bleeding (hemorrhage). Some bleeding is common, and a health care provider will monitor the amount of bleeding. Rarely, major and life-threatening bleeding may occur.

Signs of a collapsed lung include:

- Blueness of the skin
- Chest pain
- Rapid heart rate (rapid pulse)
- Shortness of breath

If any of these occur, report them to your health care provider immediately.

In general, you should have nothing to eat or drink for eight hours prior to your biopsy. However, you may take your routine medications with sips of water. If you are diabetic and take insulin, you should talk to your doctor; who will probably have you adjust your usual insulin dose.

Prior to a needle biopsy, you should report to your physician all medications that you are taking, including herbal supplements. It is especially important to let your physician know if you are taking medications that may cause you to bleed, such as aspirin or other blood thinners. You may need to stop using these medications for several days prior to your biopsy.

You should have a friend, spouse and/or relative accompany you to the hospital and provide transportation home following the procedure.

Your bandage may be removed one day following the procedure, and you may bathe or shower as normal. No stitches will need to be removed.

You should not exert yourself physically (such as heavy lifting, extensive stair climbing, sports, etc.) or travel by airplane the night of and for one full day following your biopsy. On the second day, if you feel up to it, you may return to your normal activities.

You may experience some soreness at the biopsy site as the local anesthesia fades, but this should improve. You may also cough up a little blood, but this should be minimal. These symptoms will gradually fade over the 12 to 48 hours following the procedure.

After the biopsy, you will go to an observation area for several hours to check for possible complications. Chest x-ray(s) may be performed to monitor for complications.

Bleeding will be minimal, and no stitches will be required. The entire procedure typically lasts an hour.