



Percutaneous Lung Biopsy

What is a lung biopsy?

A lung biopsy is a procedure done to take one or more small pieces of lung tissue. The samples are sent to a laboratory and looked under a microscope to see if there are any problems in your lungs.

What are the risks?

The risks vary with each person and are related to your health condition. Your doctor will explain your risks to you before the procedure.

Possible risks for lung biopsy include:

- pain
- shortness of breath
- bleeding

Where will I have my lung biopsy?

Your procedure will be done in the Diagnostic Imaging Department, also called X-ray, at:

- McMaster University Medical Centre
1200 Main Street West
Hamilton Ontario L8N 3Z5
905-521-2100, ext. 75279

OR

- Hamilton General Hospital
237 Barton Street East
Hamilton, Ontario L8L 2X2
905-521-2100, ext. 46900

OR

- Juravinski Hospital
711 Concession Street
Hamilton, Ontario L8V 1C3
905-521-2100, ext. 42257

Your appointment for your procedure:

Date: _____

Time: _____

If you have questions, please call the doctor who referred you for this procedure.

How do I get ready for a lung biopsy?

Medications:

If you take blood thinners such as warfarin (Coumadin[®]), heparin, Plavix[®], Aggrenox[®] or Ticlid[®]:

- Ask the doctor who prescribed these medications for instructions on any changes that are needed before your procedure.
- If you are taking warfarin, your referring doctor will stop this medication several days before your procedure. During this time, you may be switched to another medication.
- If you have not heard from your referring doctor one week before your procedure, please call his or her office.

If you take aspirin or other anti-inflammatory medications such as ibuprofen, Advil[®], Motrin[®] or Aleve[®]:

- **Stop taking these medications 1 week before your procedure.**
- These medications may increase your risk for bleeding during the procedure.
- You may take Tylenol[®].

Going home:

You will need to arrange for someone to take you home from the hospital on the day of the procedure.

Interpreter:

If you have a hard time speaking and understanding English, bring someone with you that can speak English and translate.

The night before your procedure:

- Do not eat or drink anything after midnight the night before your procedure.

The morning of your procedure:

- If you have diabetes, do not take your insulin or diabetes medication. Bring your insulin or diabetes medication and a snack with you.
 - Take all of your usual medications as prescribed, **except for anti-inflammatory medications listed on page 3**, with a sip of water.
 - Bring any medications you may need to take while you are in the hospital.
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What do I bring to the hospital?

- All of your medications in their original containers from your pharmacy.
- Your Ontario Health Card.
- Your glasses, dentures and/or hearing aid(s).
- Your medical alert/allergy bracelets.
- Leave all other valuables such as money, jewelry and credit cards at home.

We encourage you to bring 1 or 2 family members or friends to be with you before and after the procedure.

Where do I go when I arrive at the hospital?

If your procedure is at the:

- **Hamilton General Hospital** – go to the reception desk in the Diagnostic Imaging Department on the Main Level.
- **Juravinski Hospital** - go to the reception desk in the Diagnostic Imaging Department on Level “1”.
- **McMaster University Medical Centre** – go to Same Day Surgery on the 2nd floor.

Ask at the hospital Information Desk if you need help finding the Diagnostic Imaging Department.

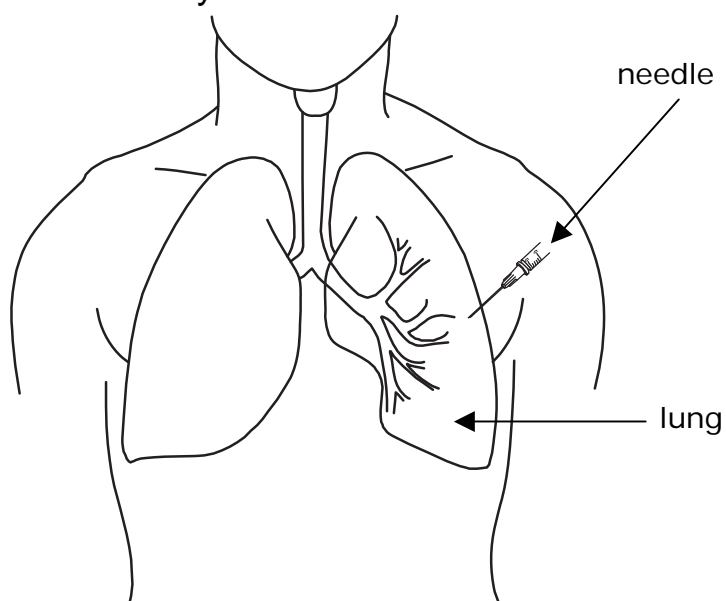
Before your procedure:

- Plan to spend 4 to 6 hours at the hospital for your preparation, procedure and recovery.
- You will meet the doctor, called a radiologist, who will do the procedure. The doctor will explain the procedure, answer your questions and ask you to sign a consent form.
- You will change into a hospital gown.
- An intravenous (IV) line will be started in your arm. An intravenous is a thin, plastic tube called a catheter that is put into a vein to give you fluid.
- You may have a blood test to make sure that your blood is clotting normally. Once the results of your blood work have been received and cleared, you will have the biopsy done.
- You may need to have a CT scan or ultrasound to locate the area to biopsy.

How is the biopsy done?

- The biopsy may be done using ultrasound, x-rays, CT scanning or a combination of the 3. The doctor will choose the method that is right for you.
 - You may have to lie on your side or stomach for the procedure. It takes about one hour.
 - You may receive medication to sedate you through the IV but you will not be completely asleep.
 - A nurse will monitor your blood pressure, heart rate and breathing throughout the procedure.
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- The skin on your chest will be cleaned with antiseptic.
- Sterile sheets will be placed over you. The staff will provide you with as much privacy as they can.
- The biopsy area will be injected with a local anesthetic or “freezing”. This will sting for a few moments and then the area will become numb.
- The doctor will make a small nick in your skin and will carefully insert the needle into your chest. The needle will usually go in between your ribs.



- Once the needle is through your skin, the doctor will use ultrasound, x-rays, CT scanning or a combination of 3 methods to guide him or her to the right area. You may feel a bit of pressure in the area, but it should not be painful.
- A small piece of tissue from your lung will be taken using the needle. Usually more than one sample is taken.
- You will need to stay very still during the biopsy and try not to cough. You may be asked to hold your breath during the biopsy, or to breathe softly since your lungs move as you breathe.

After your lung biopsy

The needle will be removed and pressure will be applied for 10 to 15 minutes to ensure the bleeding has stopped. A dressing will be applied to the area and you will have a chest x-ray.

You will be transferred to an area where you will need to rest in bed for at least 3 hours. Your nurse will tell you how long you will need to rest in bed.

You will be able to eat and drink once the procedure is complete.

You may have some discomfort where the biopsy was taken. The nurse will give you Tylenol to help control the pain.

You may also cough up a small amount of blood – this is normal.

Frequent checks will be made of your:

- blood pressure, heart rate and breathing
- chest to check for bleeding, swelling and pain

Tell your nurse right away if you notice:

- warmth, dampness or bleeding around the site of the biopsy
- lightheadedness
- changes in your vision

You may be able to go home 4 hours after your procedure.

Once at home:

- Rest comfortably either lying down or in a reclined position.
- You can take all of your usual medications.
- You may have mild discomfort at the needle site, or in the shoulder area of the biopsy side – this is common. If needed you may take Tylenol[®] (avoid aspirin).
- For the next 24 hours, **do not**:
 - lift anything greater than 10 pounds
 - drive
 - ride a motorcycle
 - operate heavy machinery
 - make any major decisions

What is a Pneumothorax?

This is a complication that commonly happens after a lung biopsy. A pneumothorax is a build-up of air between your chest wall and the lining of your lungs. It will happen in about 1 out of 3 patients and is monitored with chest x-rays. In most patients, the build-up of air is small and the air will be absorbed as your lungs heal.

In some patients, the air continues to build-up and may cause the lung to collapse. This usually happens if the biopsy was difficult to obtain or done in a deep area of the lung. If this happens, a small tube may be inserted into the chest to drain the air, and keep the lung expanded. You may go home with home care support and return in 2 to 3 days to have the tube removed.

Call your family doctor, 911 or go the nearest emergency department if you have:

- pain that is severe or does not go away
- increased pain or pain that radiates towards shoulder on the side of the biopsy, or chest pain
- increased abdominal distention, unusual swelling or bleeding
- shortness of breath
- dizziness or fainting
- signs of infection, such as redness or warmth to touch from the biopsy site, fever

Please bring your "Take Home Sheet" with you so the emergency department will know what test you had done and by whom.

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