What is Needle Biopsy?

Image guided Needle Biopsy

A needle biopsy or needle aspiration is a medical test that can identify the cause of an abnormal lump or mass in your body. Using imaging guidance e.g., ultrasound, mammogram, CT or fluoroscopy the doctor inserts a small needle into the abnormal area and removes a sample of the tissue, which is given to a pathologist, who examines it under a microscope.

The pathologist can determine whether the abnormal tissue is a noncancerous tumour, cancer, an infection or a scar.





Lung Biopsy

Breast Biopsy

SERVICE IS AVAILABLE AT:

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Needle Biopsy



Preparation for the Needle Biopsy

- No special preparation is required.
- Blood may have to be taken to check for any clotting problems. This may be done the day before or on the morning of the procedure.
- Fasting may be necessary for 4-6 hours prior to the procedure, depending on the site for biopsy.
- If it is arranged for you to do the procedure as a day case, please come early to the hospital for admission, at least 2 hours prior to your appointment.
- If it is to be done as an outpatient, please bring along a companion and be punctual for your appointment.
- If you are already in the hospital, you will be transported to the department at your appointed time.

What is the procedure like?

- Some form of imaging equipment is used e.g., X-ray, CT, Ultrasound or Mammography to determine the site of the mass and the best route of entry.
- The area will be cleaned and the radiologist will give you a local anaesthetic injection to numb the skin and soft tissue over the area in question.
- You will be awake during the biopsy but you should have little or no discomfort.

- Sometimes an intravenous line will be started so that you can receive fluids and medicines during the procedure.
- The radiologist will use the imaging equipment to guide the small needle into the mass or lump. You may feel some pressure during the procedure.
- Using a biopsy needle, the radiologist will remove a tiny piece of tissue or some cells from the abnormal area.
- The tissue is sent to the laboratory for examination under a microscope.
- The tiny skin incision is closed with a small compression dressing.
- For breast lesions, a clip may be placed at the site where the mass is to ensure that the site can be easily located for additional surgery if this is necessary.
- Sometimes, repeated passes with the needle may be necessary in order to obtain an adequate sample.
- The examination is completed in less than an hour.

What happens after the biopsy?

- You will stay in the department for a brief time so that the staff can make sure you are alright.
- You will then be transported to a day surgery bed to rest.
- Mostly you may go home after about one to four hours after the biopsy.

- In the case of a lung biopsy, serial chest x-rays may be taken to detect and track any air leaks as a result of the biopsy.
- Keep physical activity to a minimum for the remainder of the day after the biopsy.
- The biopsy area may be tender or sore for one or two days.

What are the benefits and risks of the procedure?

BENEFITS

- Needle biopsy is an alternative to surgical biopsy.
- It can often answer whether a mass is cancerous or not without the need for surgery.

RISKS

- There are a few risks as a small needle is used.
- Complications are infrequent and fewer than 1% of patients develop bleeding or infection.
- In about 90% of patient, needle biopsy provides enough information to determine the cause of the abnormality. occasionally, a second needle biopsy or surgery biopsy is required.
- For lung needle biopsies, there is a risk of coughing up blood. This is usually small and self-limiting. There is also a risk of an air leak into the chest space surrounding the lung. This is called a pneumothorax . If it is large, it may cause the lung or part of the lung to collapse. When this happens, a small tube may need to be inserted into the chest cavity to drain away the air.