

## What is Image Guide Biopsy?

Image guided biopsy is a procedure in which a small sample of tissue (core biopsy) or fluid (aspiration biopsy) are obtained using modalities such as CT or ultrasound. The sample of tissue is then examined under the microscope to look for abnormal cells. Sometimes the sample is tested in other ways. For example, it may be tested with chemical reagents to help identify abnormal chemicals in the tissue sample. Sometimes tests are done on the sample to look for bacteria or other germs.

## Why are Biopsies done?

- Biopsies are often important to diagnose cancer. A biopsy is commonly done if you have a lump or swelling of a part of the body where there is no apparent cause. In these situations often the only way to confirm whether the lump is a cancer is to take a biopsy and look at the cells under the microscope. Cancer cells look different to normal cells.
- Various other conditions can be diagnosed by taking a biopsy. For example, inflammation within organs such as the liver or kidney can be seen on a biopsy sample. There are various causes of inflammation, and sometimes the biopsy can identify particular cells that occur with specific types of inflammation.
- Sometimes you may already have a condition, but a biopsy can help to assess its severity. For example, to see how severe inflammation is within an organ such as the liver.

## How are Biopsies done?

There are many different procedures to obtain biopsy samples. It depends on what part of the body the sample is needed from. For example:

- **A 'punch' biopsy.** This is useful to diagnose a range of skin conditions. A special instrument punches a small hole through the top layers of the skin to remove a sample of skin. To make the procedure painless, the doctor may inject some local anaesthetic or put on some anaesthetic cream beforehand.
- **A 'needle' biopsy.** This can sample tissue from organs or lumps beneath the skin. For example, a special long needle can be inserted through the skin into the kidney, liver, thyroid, bone marrow, or abnormal lumps, etc. A small sample of the tissue can be obtained this way. The doctor will usually inject some local anaesthetic, using a fine needle, into the skin prior to this type of biopsy to make the procedure painless.
- **Endoscopic biopsies.** An endoscope is a thin flexible telescope which is used to 'look' into various parts of the body. A biopsy of tissue is commonly taken during these procedures. For example, during a gastroscopy (when an endoscope is passed through the mouth and into the stomach) the doctor may take a biopsy of the stomach lining.
- **Excisional biopsy.** This means an entire abnormal lump is removed to be examined. This may be done under local or general anaesthesia, depending on the site of the lump. For example, this type of biopsy may be done for certain breast lumps.
- **Perioperative biopsy.** Sometimes, when you are having an operation, a surgeon may remove a small sample of tissue which is examined within a few minutes. This may help the surgeon to determine the cause of a lump inside the body, which may help to decide on how to proceed with the operation.

## Preparation

It is essential that copies of previous imaging including CT, MRI and ultrasound scans are available at the time of the biopsy. If you are taking any blood thinning medication it is important to cease this prior to the procedure. Please discuss this with your referring Doctor. You may need to fast for 6 hours prior to the procedure.

## Procedure

Ultrasound or CT scans will be performed to image the anatomy and localize the area to be biopsied. The area will be cleaned with an antiseptic solution. Local anaesthetic will be injected into the site to numb it prior to the biopsy. The Radiologist (a doctor who specialises in medical imaging) will then use an appropriate instrument, such as a needle or punch, depending on the type of required procedure, to take a sample of cells from localised area. Several samples of the tissue may be required. These samples will be sent to a Pathology provider for analysis. The Pathologist will send the report to your referring Doctor.

## Post Procedure

Following the biopsy, the site will be covered with a waterproof dressing. You will be asked to press firmly on the site to limit any bleeding. There will be some bruising at the biopsy site afterwards. This is normal. Significant complications such as infection or excessive bleeding are rare.

Depending on the type of biopsy performed, you may need to be observed in our clinic for up to 4 hours after the procedure. You may also need an x-ray after the procedure to check for potential complications. This will be discussed with you by the Radiologist.

Following the procedure there may be some discomfort. If required, a simple analgesic such as Panadol (but NOT aspirin) should be sufficient. You should avoid any strenuous activity for 24 hours post biopsy. If you notice excessive bruising, swelling, bleeding, redness or heat, please contact our clinic or your referring Doctor without delay.

## How do I get my Biopsy result?

Report from Pathology analysis will be sent to your referring doctor. **It is very important that you discuss the results with your referring doctor so that they can explain what the results mean for you.**

*This information is credited to "SouthernX Radiology" and "Patient, Trusted Medical Information and Support"*

- <http://www.southernradiology.com.au/Patients/Procedures/Image-Guided-Biopsy.aspx>

- <http://patient.info/health/biopsy>

Jul 2015