

Biopsy Guided by Ultrasound

Introduction

An ultrasound-guided biopsy (core or fine needle aspiration biopsy) uses sound waves to help locate a nodule or abnormality within the breast/thyroid/neck and remove a tissue sample for examination under a microscope. The procedure is less invasive than surgical biopsy, leaves little to no scarring and does not involve exposure to ionizing radiation.

Nodules or abnormalities in the body are often detected by imaging examinations. However, it is not always possible to tell from these imaging tests whether a nodule is benign (non-cancerous) or cancerous.

This procedure requires little to no special preparation. Tell your doctor about any medications you're taking, such as aspirin or blood thinners.

Ultrasound guided biopsy procedures are performed by a specially trained radiologist with experience in needle aspiration and ultrasound.

Preparation

Bring diagnostic scans to assist with locating the treatment area.

Complete consent form.

Depending on the type of examination you are having you may need some preparation. For some scans you will be asked to change into a gown.

You may also be asked to remove your hairclips, earrings, pins, chains or other items of jewellery before the examination, as these can sometimes interfere with examination.

The area to be biopsied will be checked and an area of skin will be cleaned with an antiseptic. You may be given local anaesthetic to numb the skin and insert a needle to obtain some tissue. Several samples of tissue may be required.

The whole procedure should take 10 to 40 minutes, depending on the area being biopsied.

Results

The extracted tissue will be sent to pathology for study and the pathologist examines the removed specimen and makes a final diagnosis so that treatment planning can begin. The results will be sent to your treating doctor to discuss with you. This usually takes 2 to 4 working days.

Risks

The doctor believes the benefits to you from having this procedure exceed the risks involved.

The risks and complications with this procedure can include but are not limited to the following.

Common risks and complications include:

- Pain or discomfort at the puncture site. This may require medication.
- Bleeding or bruising may occur. This is more common if you take Aspirin, Warfarin, Clopidogrel (Plavix and Iscover) or Dipyridamole (Persantin and Asasantin).
- Failure of local anaesthetic which may require a further injection of anaesthetic or a different method of anaesthesia may be used.
- Nerve damage, is usually temporary, and should get better over a period of time. Permanent nerve damage is rare.

Less common risks and complications include:

- Infection, requiring antibiotics and further treatment.
- Damage to surrounding structures such as blood vessels, organs and muscles, requiring further treatment.
- Excessive bleeding from the puncture site. This may require other treatment and/or corrective surgery.
- An allergy to injected drugs, requiring further treatment.
- (*Breast biopsies only*) Pneumothorax, a collection of air around the lining of the lungs. This usually stops by itself but sometimes may require a tube to be inserted into the chest.
- The biopsy procedure may not obtain enough tissue and may need to be repeated at a later date.
- The procedure may not be possible due to medical and/or technical reasons.

Rare risks and complications include:

- Seizures and/or cardiac arrest due to local anaesthetic toxicity.
- Death as a result of this procedure is *very* rare.

More Information

InsideRadiology by the Royal Australian and New Zealand College of Radiologists:
www.insideradiology.com.au

RadiologyInfo by the American College of Radiology and Radiological Society of North America:
www.radiologyinfo.org

ACI Radiology Network: www.aci.health.nsw.gov.au