

### What is a Fine Needle Aspiration (FNA)?

Your doctor has referred you for a fine needle aspiration (FNA) because a lump or area of tissue in your thyroid has been identified that requires further investigation.



A FNA is a procedure where a special needle is inserted into the thyroid to take a small sample of thyroid tissue cells or fluid from an area of concern, so that it can be sent to a pathology laboratory for testing. The procedure is performed by a specialist doctor, called a radiologist, using ultrasound to guide the positioning of the needle. The cells are then sent off to be examined by a specialist doctor, called a pathologist or cytologist, under a microscope. The information from this procedure helps your doctor with a diagnosis, and if necessary, plan treatment you may require. A FNA may not give a definitive answer. It is not always possible to confirm or exclude abnormalities and you may need more tests.

### How long will the procedure take?



The procedure will be performed under ultrasound guidance and the entire procedure usually takes about half an hour, depending on how many samples the radiologist requires to be confident that they have adequate tissue samples. You may be observed for a short time afterwards.

### Is there any special preparation required?

No special preparation is required; however a thyroid fine needle aspiration (FNA) can be uncomfortable. You may wish to ask a relative or a friend to attend the appointment with you if you think that you may need support before or after the procedure; however they will not be allowed to stay with you during the procedure. You may wish for someone to drive you home.

When booking your appointment, it is essential that you inform our staff if you have any allergies or take blood thinning medication.

Please list or bring all of your prescribed medications, including those medications that you buy over the counter, including herbal remedies and supplements.

If you take blood thinning medication, you may need to stop taking these for a few days or reduce your dose. **It is very important that you do not stop any blood thinning medications or change the dose without consulting with our radiology clinical staff and your own doctor.** They will give you specific instructions about when to stop and restart the medication. These drugs are usually prescribed to prevent stroke or heart attack, so it is very important that you do not stop taking them without being instructed to do so by your doctor or our clinical staff, or both. Aspirin is usually not stopped.

A blood test may be required to check your blood clotting on the day before the procedure. You should continue with pain medication and all other medications as usual.

### What do I need to do on the day of the procedure?

On the day of your appointment, please ensure you bring:

- Your referral form (if you have it)
- All previous relevant scans or x-rays
- Medicare and healthcare cards (e.g. DVA card or concession card)
- List of all medications

### What happens during the procedure?

An antiseptic solution is used to clean the skin and reduce the risk of infection. The procedure may involve the injection of local anaesthetic into the skin to reduce or prevent pain by numbing the surrounding skin, but it will not put you to sleep. The use of the local anaesthetic will be determined by the radiologist. Local anaesthetic causes a pinprick and stinging sensation that is uncomfortable for a few seconds.

Under the guidance of ultrasound, the radiologist will place a fine needle (similar to that used to take a blood sample) into the thyroid nodule or lesion to collect some cells. It is common for two to three samples to be collected. If you have more than one thyroid nodule, this procedure may need to be repeated for each nodule. A cytologist may be present who will confirm that the minimum amount of cells required for testing has been collected. This reduces the risk of you having to come back for another FNA.

At the end of the procedure, a small waterproof dressing will be placed over the area and an ice pack may be applied to assist in reducing bruising.

### **Are there any after effects from the treatment?**

It is common to have some pain, swelling and even a little bruise where the needle was inserted into your neck. Simple 'over the counter' pain medication available from the chemist, such as paracetamol, can be taken for this. Pain and swelling should be minimal after 48 hours.

If you are experiencing difficulty breathing after the procedure, you should go immediately to the nearest hospital Emergency Department.

### **What happens after the procedure?**

You will be able to eat and drink as normal following the procedure. Our staff will provide you with clear written instructions on ways to look after yourself following an FNA. This includes information such as: avoiding strenuous activity for a few days, arranging a follow-up appointment with your referring doctor and how to look after the FNA site.

### **What are the benefits?**

If there is an area of concern in your thyroid, FNA samples of this area are taken for examination by a pathologist. FNA is a quick and simple procedure to investigate a thyroid nodule or lesion to gain accurate information without the need for an operation to surgically remove tissue for testing.

### **Are there any risks?**

In referring you for this procedure, your doctor believes that the benefits of this procedure for you are greater than the risks. There are some risks and complications associated with a FNA. The use of ultrasound to guide the procedure minimises these risks.

The most common risk is an uncertain diagnosis, even after the tissue sample is looked at thoroughly by the pathologist. This happens up to 20% of the time.

The second most common risk is bleeding at the site of the FNA. This happens to approximately 1 in 10 people, and generally produces some local pain, tenderness and a lump. Simple pain medication available at the chemist (paracetamol) is generally sufficient to help the pain and it settles with the swelling over a few days. It is best to avoid aspirin for pain relief unless you are taking this daily for other reasons. Aspirin makes it harder for blood to clot, so paracetamol is better for pain relief after the thyroid FNA. Bleeding or bruising at the site is more likely if you take blood thinning medication or regularly take fish oil supplements.

Less common risks and complications may include infection or damage to surrounding structures such as blood vessels, organs and nerves. Everyone has an individual pain threshold so tell the nurse or our specialist doctor, a radiologist, if you feel pain during the procedure. If you sometimes faint during medical procedures, please tell the doctor before the procedure starts. Sometimes, the procedure may not be possible due to medical and/or technical reasons.

Rare risks and complications include major haemorrhage; enough to cause compression of your airway and problems breathing. This is very rare (less than 1 in 1000 people). You need to go to a hospital Emergency Department immediately if this happens, and sometimes surgery is needed to stop the bleeding, but this too is very rare. Some people may have an allergy to injected drugs (e.g. local anaesthetic).

Rarer complications after thyroid FNA include:

- General swelling of the thyroid or neck area that is not painful and not related to bleeding.
- Change in voice (hoarseness). This can be a result of temporary injury of one of the nerves near the thyroid. It generally goes away over weeks to months when the nerve recovers.
- Difficulty or discomfort swallowing.
- Temporarily abnormally increased thyroid function. This is thought to be a result of stimulation of the release of thyroid hormones by the FNA. It is very rare but can produce excessive sweating or a 'racing' pulse or chest 'palpitations'.

### **When do I get the results?**

The radiologist will send a report outlining the procedure to your referring doctor (this could be your family doctor or a specialist) and your regular GP. It is important that you make a follow-up appointment with your referring doctor so that they can discuss the results with you.

The pathologist who studies the FNA samples will provide a detailed report to your referring doctor. The cytology results are usually available and sent to your doctor within 3 days. Usually your doctor will already have made arrangements to discuss the results with you.

### **I still have questions, who can I ask?**

Medical information can be complex, and you may receive information that you do not fully understand. It is important for you to consider the risks and outcomes of the procedure as well as your personal needs before making a decision to undergo the procedure.

If you have read this online information and are still unsure if this is the correct procedure for you; before making a booking, you should discuss your questions or concerns with your referring doctor in the first instance. Your regular GP and/ or your family may also be a useful resource. Your referring doctor can answer questions about the risks and benefits of not having the procedure and other options for treatment.

If you have questions before your appointment about what is involved on the day, our staff would be happy to assist. Please contact the Lumus Imaging centre where you have made your appointment.