Wolfson Diabetes and Endocrine Clinic - IMS

Thyroid biopsy clinic

Why am I being seen in the thyroid biopsy clinic?

You have been referred to this clinic because further examination of your thyroid gland is necessary. This clinic has three teams:

- endocrinologists (thyroid specialists)
- radiologists (ultrasound specialists)
- cytologists (experts in preparing biopsy samples for assessment)

What happens at the thyroid biopsy clinic?

If not done previously, you will be asked about your thyroid gland problems and your neck may be examined. You will have an ultrasound scan of the thyroid gland. If any nodules (lumps) or cysts are detected, a biopsy, also called a ‘fine needle aspiration’ (FNA), may be advised by the doctor in clinic. If you are to have a biopsy, it will be undertaken later on in this clinic.

What is thyroid ultrasound and how is it done?

An ultrasound is a scan that uses sound waves to create an image of the thyroid gland. It is similar to the type of scan used to image a baby while growing in the womb. It involves no exposure to radiation and is very safe.

During the ultrasound scan you will be positioned on a bed with your neck extended. A small handheld device called a transducer is placed onto your skin, and moved over the area of the thyroid gland at the front of the neck. Lubricating gel is used to allow continuous contact between the transducer and the skin. The transducer is connected to a computer and a monitor displaying an image of your thyroid gland.

Thyroid ultrasound is becoming increasingly useful and is a vital diagnostic tool that can reduce the need for thyroid biopsy in some cases; if a biopsy is not required, you may be monitored in a future clinic or with further scans. Alternatively, it may still be necessary to collect a sample of thyroid cells by fine needle biopsy to obtain a diagnosis.
What are thyroid nodules and cysts?

Thyroid nodules are ‘lumps’ within the thyroid gland and are very common. Most thyroid nodules are benign (i.e. are not due to cancer) and require no specific treatment; however, a very small number are due to thyroid cancer. Thyroid cancer is very treatable and the majority of patients have a good response to treatment (surgery, radioiodine) and an excellent long-term (10-20 years) outcome.

Thyroid cysts are fluid-filled lumps within the thyroid gland. They can sometimes enlarge and cause discomfort or problems swallowing. The doctor can remove the fluid by passing a small needle into the cyst and aspirating (drawing off) fluid. If the cyst recurs repeatedly after aspiration, we may recommend surgery to remove the cyst completely.

Will I have to have a thyroid biopsy?

Biopsy of a thyroid nodule is not always necessary. When considering whether to perform a biopsy, your doctor will consider the size and appearance of the nodule on ultrasound. Thyroid cysts that are causing pressure on surrounding tissue/structures are drained wherever possible.

What happens during a thyroid biopsy or cyst aspiration?

Preparation for this procedure involves laying flat on a bed with a pillow under your shoulders. Your neck will be cleaned with antiseptic and local anaesthetic is usually injected into the skin to numb the area. Once the anaesthetic has had time to take effect, the biopsy will be undertaken, usually using ultrasound guidance. You may feel pressure as the needle is passed through the skin and further movement as it passes through thyroid tissue and cells are aspirated. Usually a number of samples are taken immediately after each other. The biopsy takes between 5-15 minutes.

The biopsy sample will be examined under a microscope by a technician in the clinic to ensure that enough cells have been taken to allow a diagnosis to be made later in the laboratory. As special staining of cells and expertise (by a pathologist) are required, we do not make a diagnosis straightaway in the clinic.

How are the thyroid biopsy results interpreted?

The cells removed during the biopsy are reviewed by a pathologist (a doctor who specialises in interpreting changes in cells and body tissues). The appearance of cells is then classified into one of five categories:

- Thy 1: Not enough cells are seen to be able to determine the cause of the nodule. The biopsy may need to be repeated to obtain more cells.
- Thy 2: Only benign (non cancerous) cells are seen.
- Thy 3: Some abnormal cells seen and these are probably not cancerous but we cannot be sure. We may recommend a repeat biopsy or surgical removal
of part of the thyroid gland containing the nodule to determine its cause. About 20-30% of nodules in this category are cancerous.

- Thy 4: Abnormal cells are seen and the nodule is likely to be cancerous. We sometimes recommend a repeat biopsy. Often thyroid surgery is advised to remove the nodule.
- Thy 5: Abnormal cells are seen and the nodule is almost certainly due to a cancer. We almost always recommend removal of all, or part, of the thyroid gland.

**When will I hear the result of my biopsy?**

The doctor in charge of the thyroid biopsy clinic will contact you within three weeks of having the biopsy performed. You may be notified of the result of your thyroid biopsy in a letter, or we may arrange an outpatient appointment for you so that the doctor can describe the results in person. **If you have not received notification of your result or an outpatient appointment within three weeks of your biopsy, please let us know via the endocrine nurses on 01223 217848.**

The British Thyroid Foundation is a reliable resource with a range of information on thyroid disorders including nodules. Tel: 01423 709707 or 709448
Website: [www.btf-thyroid.org](http://www.btf-thyroid.org)

**Please be advised that there are sometimes delays with consultations in this clinic, due to the unpredictable duration of individual consultations. Whenever possible, we aim to avoid delays and will advise you of the length of time you may have to wait; your patience and understanding are appreciated.**

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We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk. Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**

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