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THYROIDECTOMY for a NODULE

This document is an information sheet I have prepared about your thyroid operation to help you to make an informed decision. It describes the benefits and risks of surgery so you can decide whether to go ahead with the operation or not. If you have any further questions please let me know, or consult my website at www.endocrinesurgery.net.au

What is the thyroid gland?

The thyroid is a large butterfly-shaped gland in the neck that sits like a bow tie just below the voicebox (Figure 1). It comprises two lobes that sit on either side of the windpipe.

The thyroid releases a hormone into the bloodstream called thyroxine that regulates the body's metabolism. Too much or too little thyroxine leads to a number of different symptoms affecting many parts of the body.

Thyroid activity is controlled by a hormone called thyroid stimulating hormone (TSH), which is released from the pituitary gland in the brain. Thyroid blood tests measure this hormone as well as those released by the thyroid itself.

What has gone wrong with my thyroid gland?

The thyroid can develop a lump (nodule), which can cause problems with swallowing or breathing, and sometimes a choking feeling. The lump tends to get bigger with time, leading to discomfort and an unsightly bulge in the neck.

Generally lumps in the thyroid do not change the activity of the thyroid. More than 97 out of 100 lumps in the thyroid are benign (not a cancer). Of course, any part of the thyroid gland removed will be examined by the pathologist under the microscope.

The most common types of noncancerous thyroid nodules are known as *colloid nodules* and *follicular neoplasms*. If a nodule produces thyroid hormone without regard to the body's need, it is called a *toxic nodule*, and it can lead to a condition of overactivity called thyrotoxicosis. If the nodule is filled with fluid or blood, it is called a *thyroid cyst*. You will generally have had a needle biopsy (FNA) performed before the surgery, which provides information on the nature of the nodule, and will help to decide the need for an operation.

Why should I have the surgery?

You have been advised to have an operation on the thyroid to remove the nodule. In order to do this safely it generally means completely removing one half of the thyroid gland (a lobectomy) rather than just the lump itself.

More than 8 out of 10 people will still have normal thyroid function after the operation, but the remainder will need to take thyroid supplements for the rest of their lives.

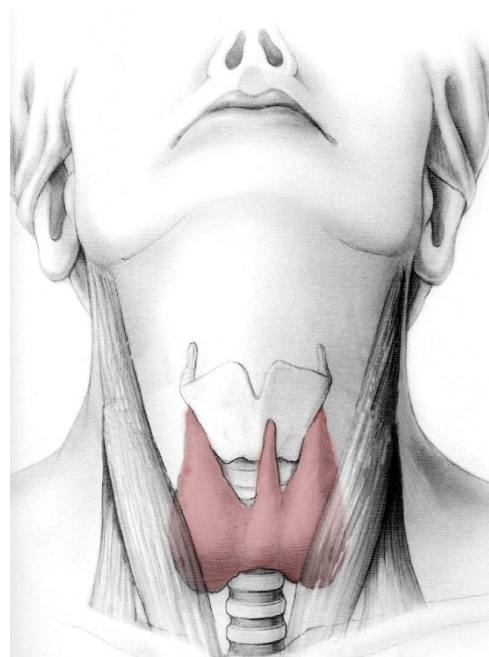


Figure 1: Anatomy of the thyroid gland, situated in the neck just below the voice box.

Surgery will remove the unsightly swelling, improve the symptoms and allow the pathologist to closely examine the whole lump under the microscope. Although the FNA of the lump will give an indication of the cause, only complete removal of the nodule will give a sure answer. It would be a risk to leave the lump untreated, especially if the FNA was unusual or suspicious, in case the lump is in fact a cancer.

If there is a cancer in the nodule then the appropriate treatment will be discussed with you soon after the operation. If there is no cancer (which is almost always the case) then no further treatment is usually needed.

How is the operation done?

Most patients with a lump in the thyroid can have a minimally invasive (small cut) operation to remove it. When the lump is larger however, a slightly larger cut may be necessary.

The operation is usually performed under a general anaesthetic, but occasionally it is done with a local anaesthetic only. Your anaesthetist and I will discuss the options with you and recommend the best method. The operation usually takes about an hour.



Figure 2: Diagram showing the usual size of the cut in the neck for thyroid surgery. A larger cut may be needed with big lumps.

While you are asleep a small cut is made in the neck in the line of one of your skin creases. I aim to make the cut as small as possible (minimally invasive surgery), usually around 4 or 5 cm long (Figure 2).

The side of the thyroid containing the nodule is removed and sent to the laboratory to be examined by the pathologist.

The wound is closed to leave a neat scar with a few stitches - removed in a few days. Very occasionally a small drain tube is left in the neck to catch any bleeding, and is then removed in a day or so.

What can go wrong with the operation?

We aim to make the operation as safe as possible, but very occasionally things can go wrong and a complication can occur. These fall into three main areas:

1. *Complications of the anaesthetic:*
Your anaesthetist will discuss with you any possible complications related to the anaesthetic.
2. *General complications of any operation:*

Bleeding

- can occur during or after the operation, causing a bruise or collection of blood (haematoma) to form in the neck. This usually gets better by itself, but occasionally a second operation may be needed to control the bleeding. The risk is less than 1 in 500 patients.

If you are taking warfarin or clopidogrel these can increase the risk of bleeding in thyroid surgery. Please tell me if you are taking either of them so that I can advise you about stopping these medications prior to the operation.

Pain

- is unusual after minimally invasive surgery as the cut is smaller, I don't cut the muscles, and I use lots of local anaesthetic in the wound to minimise discomfort after surgery. Generally only paracetamol (Panadol) is needed to control any pain.

Infection

- in the wound is extremely rare.

3. Complications specific to thyroidectomy:

Low calcium levels in the blood

- can occur after removal of one half of the thyroid (lobectomy), but is extremely rare. It is more common if the other side of the thyroid has been removed before, with unrecognised damage then to the parathyroid glands. For patients having thyroid surgery for the first time however, low calcium is extremely unusual, as there are two undisturbed glands on the other side.

You may feel tingling or numbness in the fingers or around the mouth, which is an indication that the calcium is low in the blood. The parathyroids will usually start working normally in a few days to weeks, but meanwhile you may need to take some calcium and vitamin D supplements.

If you develop any symptoms then please let me know and I can advise you what to do.

Change in the voice

- the nerves to the voicebox run very close to the back of the thyroid on each side of the neck (Figure 3).

These can be damaged or stretched during the operation, especially if the gland is very large or extending into the chest, resulting in a change in the voice or difficulty with singing or shouting.

The risk of a permanent change is less than 1 in 500. Any change in the voice is usually temporary and settles in a few weeks to months.

Low thyroid function

- can occur in up to 2 out of 10 patients having half the thyroid removed (lobectomy).

You may need to take thyroid supplements (Thyroxine) for the rest of your life, which usually only involves taking one or two small tablets a day. The need for thyroid tablets will be determined by a blood test taken 6 to 8 weeks after surgery.

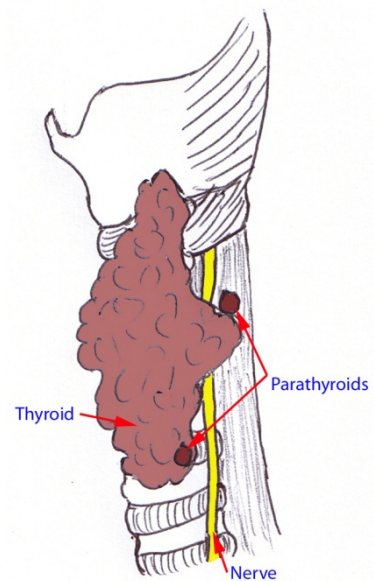


Figure 3: Left side view of the thyroid showing the position of the nerve to the voicebox and the parathyroids.

What happens after the operation?

After the surgery you will be transferred to the recovery room and then to the ward. You will be able to drink and eat soon after the operation, and can usually go home the next day. I will then see you in the rooms for removal of the stitches and to check the wound. We will also discuss the pathology results and the need for any further treatment.

Most people feel fine after the surgery with very little discomfort and can return to work and normal activities after one or two weeks. It is quite normal to feel a bit tired after an operation, but this gets better with time and regular exercise. If you are worried about anything at all please ring or email the office for information.