



ALL CORRESPONDENCE & APPOINTMENTS:

Freemasons Day Procedure Centre - Suite 112, 320 Victoria Parade, East Melbourne VIC 3002

Telephone: +61 3 9417 6634 Fax: +61 3 9415 7422 Email: rooms@endocrinesurgery.net.au

THYROIDECTOMY for THYROID CANCER

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 understand what is involved in the surgery for your thyroid cancer. 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?

Your thyroid has developed a cancer, which was found at the needle biopsy (FNA). The outcome for thyroid cancers is generally exceptionally good, but you will need an operation to remove the thyroid completely to minimise the risk to your future health.

In addition, as a routine part of thyroid cancer surgery, the lymph glands close to the thyroid cancer on the same side will also be removed. Occasionally more extensive removal of lymph glands, in other parts of the neck, may be needed if they are proven or suspected to be involved. The pathologist will examine under the microscope all of the thyroid gland and the lymph glands that have been removed, to give a more complete picture of how the cancer has progressed.

Why should I have the surgery?

You have been advised to have an operation on the thyroid, as it is the only effective way to remove the cancer, and to minimise the risk of recurrence later. The only way to achieve the entire treatment plan is to start with complete removal the thyroid gland (a total thyroidectomy) rather than just part of the thyroid. All patients will then need to take thyroid supplements for the rest of their lives, but the risk of the cancer growing back is minimised.

Surgery will not only remove the known cancer, but it will also remove any further cancers that might be unsuspected in the other side of the thyroid. After the cancer has been removed, appropriate further treatment will be discussed with you soon after the operation, which usually means radioiodine treatment (RAI). This is the second part of the treatment (after the surgery), and the final part is to commence thyroxine suppression treatment, with a slightly higher than normal dose of thyroid tablets.

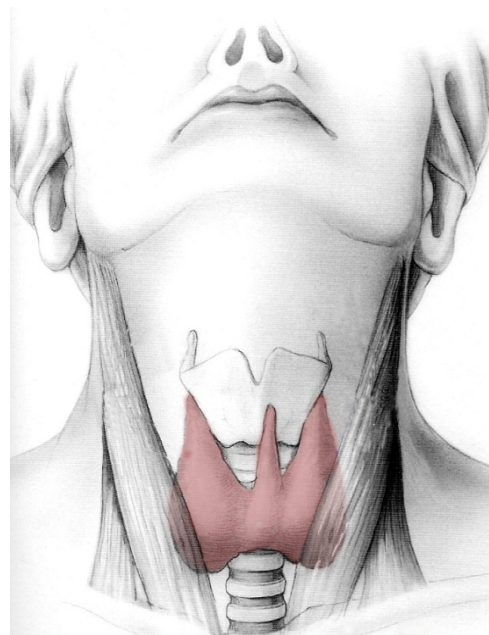


Figure 1: Anatomy of the thyroid gland, situated in the neck just below the voice box.

How is the operation done?

Most patients with a cancer in the thyroid can still have a minimally invasive (small cut) operation to remove it. When the thyroid is larger, extends into the chest, or there is extensive lymph node involvement however, a slightly extended cut may be necessary, or even a second parallel cut. The operation is performed under a general anaesthetic and usually takes about two hours.

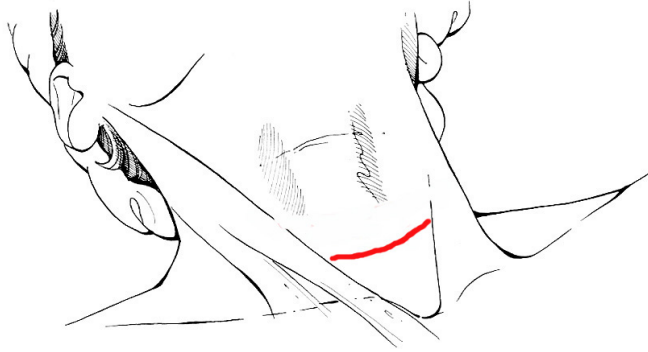


Figure 2: Diagram showing the usual size of the cut in the neck for thyroid surgery. A larger cut may be needed with big goitres.

While you are asleep a 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), but this of course depends on the size and placement of the cancer in the thyroid, and where the lymph glands are located in the neck.

whether the cancer has spread outside the thyroid gland. The whole thyroid and attached lymph gland tissue is sent to the laboratory to be examined by the pathologist.

While the whole thyroid is being removed the local lymph glands will also be removed (usually just on the side of the cancer) to allow assessment of

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, but is higher when extensive lymph gland surgery has been required.

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, rather than morphine.

Infection

- in the wound is extremely rare.

3. Complications specific to thyroidectomy:

Low calcium levels in the blood

- can occur after removal of the thyroid, and is more common if you have had a more extensive operation because of lymph gland involvement.

Low calcium can occur if the tiny parathyroid glands, which are found at the back of the thyroid, are inadvertently damaged or removed as part of the cancer operation. Every effort is made to preserve the parathyroids but they may still not function for a time after the operation. You will have a blood test to check the calcium and parathyroid hormone levels after the surgery.

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 to relieve the symptoms. There is a 2 in 100 risk of a permanent loss of parathyroid function.

It is a good idea to purchase some Caltrate (calcium) tablets from your chemist before your surgery, so they are on hand at home if you develop any tingling after the operation. I will advise you if the tablets are necessary and how much to take.

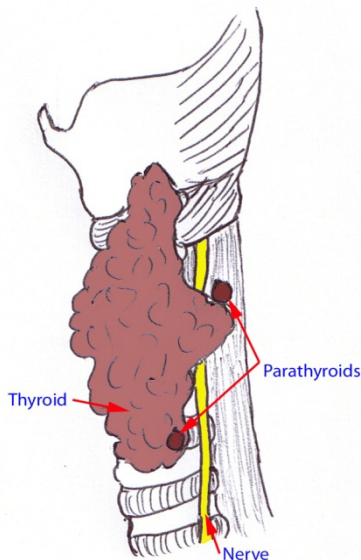


Figure 3: Left side view of the thyroid showing the position of the nerve to the voicebox and the parathyroids.

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, or a lot of dissection has been needed to clear the cancer, 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.

Damage to both nerves is exceedingly rare, but can result in breathing difficulties, which may need another operation to allow an adequate airway.

Low thyroid function

- will occur after total thyroidectomy without replacement, so you will need to take thyroid supplements (Thyroxine) for the rest of your life. This usually only involves taking one or two small tablets a day, which will be commenced while you are in hospital. The final thyroxine dose will be determined by a blood test 6 to 8 weeks after the operation.

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 or the day after. I will then see you in my 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 and emotionally drained, particularly after an operation for cancer, but this gets better with time and regular exercise. It is important to remember that the cure rate is exceptionally high for most thyroid cancers.

If you are worried about anything at all, or have questions, please ring or email the office for information.