

# NAVIN NILES

## ENDOCRINE AND HEAD & NECK SURGEON

### TOTAL THYROIDECTOMY INFORMATION SHEET

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**This information sheet is designed to help you remember and understand the conversation about the surgery that has been recommended for your thyroid problem. It can sometimes be difficult to remember all of the information, which is conveyed face to face during a consultation.**

#### **Should I be worried about having an operation?**

Thyroid surgery is generally very safe and the risks of serious complications are very small, however being anxious is a healthy defense mechanism and it is completely normal to feel a little apprehensive prior to a surgical procedure. Deciding to have surgery is a big decision and you should feel confident in going ahead; if you feel you are not confident undergoing your procedure it is important you call our rooms and arrange to speak with Associate Professor Niles. It is helpful to write your questions down and bring along a friend or family member, who can remember things that you might forget.

Patients are entitled to seek another opinion or to have another surgeon treat them if they wish. If this is the case, we are happy to facilitate an appointment with another suitably trained surgeon.

All surgeons consider these requests as a routine part of professional life and we are happy to help arrange appointments for you and forward relevant medical information.

#### **Anaesthesia**

The anaesthesia for your procedure will be provided by colleagues who have specialist training. The procedure and the risks of anaesthesia will be discussed with you by the anaesthetist prior to the operation. If you are going through the public system an appointment will be made for you at the anaesthetic clinic. If you are undergoing your procedure through the private system, you will be given contact details for the anaesthetist for your operation.

#### **Who will be doing the surgery and what are the costs involved?**

If you attend the hospital as a **public patient**, you will not be charged for the costs involved in your care. As is usual practice in the public hospital system, the registrar (a doctor who is training to be a consultant surgeon) will complete the components of the operation suitable to their level of training under the supervision of Associate Professor Niles. Associate Professor Niles will perform areas of the operation that he considers require a consultant. Simple operations are carried out by the registrar, with Associate Professor Niles available to assist or take over if difficulties arise. More complex operations are completed with Associate Professor Niles assisting to supervise all steps and to take over the most complex components.

The most complicated operations are performed by Associate Professor Niles, with the registrar assisting. Our first priority is to ensure that all operations are done to the highest possible standard.

If you elect to be a private patient, most of the operating will be carried out by Associate Professor Niles, although surgery is a team process, where some stitching and retracting is shared between two pairs of hands to make the operation safer and more efficient.

When you elect to be a **private patient**, there will be a bill from the hospital for your ward care, medications and theatre fees and for any disposable equipment. There will also be fees from the surgeon, anaesthetist, assistant surgeon, pathologists and other specialists from time to time. Medicare and your private health fund will cover all or some of these fees (usually those relating to ward care, medications and theatre fees) but often there are gap payments, which you will need to fund yourself. Our rooms will give you an estimate of surgical fees in writing prior to surgery and direct you to how you can find out about costs from the hospital, anaesthetist etc.

Private patients in public hospitals have the same access to the waiting list as public patients.

#### **Why do I need to undergo a total thyroidectomy?**

The indications for total thyroidectomy are:

- Thyroid enlargement to the point where there are 'obstructive symptoms' including difficulty swallowing, speaking, breathing or a constant cough, or pain/fullness felt in the lower neck.
- Thyroid over-activity where there is a need to take medication to control thyroid hormone levels and other types of treatment to control thyroid over-activity are less effective, or where cardiac drugs, which are beneficial for abnormalities in cardiac rhythm are causing thyroid over-activity as a side effect (amiodarone).
- Suspicion of thyroid cancer or the development of a thyroid cancer that is best treated with total removal of the thyroid gland.
- Enlargement of the thyroid that produces an unacceptable cosmetic appearance – this is usually best judged by the patient.

- Genetic thyroid diseases that may lead to thyroid cancer in the future where pre-emptive surgery reduces the risk of cancer spreading.
- Painful thyroid conditions that do not settle with time or have not responded to treatment of where the side effects of medical treatment are unacceptable.
- Benign thyroid conditions, which by needing repeated investigation such as needle biopsy over time are providing a source of anxiety and inconvenience to the patient.
- A condition, which is mainly on one side of the thyroid but which is very likely to develop within a short time on the other side as well. Most patients in this situation prefer to have only one operation, as repeat (re-do) surgery carries a higher risk of complications.

There may be one or more of these indications, which are relevant for any given patient. This list serves as a guide to making the decision about whether surgery is necessary and if so, how much surgery is needed.

### What are the risks of surgery?

It is not possible to undergo surgery completely free of risk. All surgical procedures involve some risks. Even the best surgeons have complications and the only way to be absolutely certain of not having a complication is not to have surgery at all. If a complication develops, we try to recognise it as early as possible and take steps to correct the problem.

In any operation there are complications, which are general risks (that apply to any type of surgery) and operation specific risks (which only apply to the operation being considered). In any patient undergoing surgery under general anaesthetic there is a small risk of heart attack, stroke or developing lung or kidney failure. In a person without preoperative medical problems this risk is negligible but the risk can be greater in a person with pre-existing illness. This is why your medical history is taken in detail during the preoperative consultation. Occasionally an operation, which would be quite safe for a fit person is decided against in a person with pre-existing illness because these illnesses make the operative risk prohibitive.

During any major operation precautions are taken to minimise the risk of blood clots forming in the legs and pelvic veins including compression stockings and the use of blood thinning medicines. This is necessary to minimise the risk of blood clots travelling to the lungs (pulmonary embolism), which can be life-threatening. Hospitals can harbour some infections that are resistant to many and sometimes all antibiotics. The risk of infection is greater with prolonged hospital stay, a long and complex operation, having diabetes or having a depressed immune system for some reason. All hospitals that Associate Professor Niles operates out of have systems in place to reduce the risk of infectious complications.

There are a few very rare but serious complications that can happen after surgery but simply cannot be predicted. Usually surgeons will record these complications as case reports but would never expect to see them once in their working life.

## Complications specific to thyroid surgery include:

### Voice Complications

The larynx (the organ for speaking) lies just above the thyroid and there are nerves, which supply the vocal cords allowing them to move for normal speech, they avoid food 'going down the wrong way' and for coughing. These nerves run very close to the thyroid from above and below the larynx. It is important to avoid injury to these nerves during thyroid surgery. Associate Professor Niles may check the vocal cord function before and after your thyroidectomy with a flexible telescope through the nose (nasopharyngoscopy).

Temporary hoarseness of voice affects about 10% of patients but is attributable to nerve injury in about half of these. Wound swelling and vocal cord bruising from the anaesthetic tube are the other causes.

Permanent paralysis of one nerve is uncommon (about 0.5% of cases) and this can result in permanent hoarseness of voice, although often the 'normal speaking voice' recovers over months as the other vocal cord strengthens to do the work of the other cord. Very rarely (usually in patients with advanced thyroid cancer) both nerves do not work after surgery and a tracheostomy (breathing tube in the neck) is necessary, in some cases permanently.

It is unusual for thyroidectomy patients not to be able to use their voice to the same level as before. Voice weakness and voice fatigue (losing the voice after prolonged speaking) are common symptoms that usually improve over six months. This can be due to the upper nerve to the larynx being injured and this may affect up to 30% of patients. These symptoms are usually mild.

We recommend using the voice as much as possible as the larynx muscles are like muscles in the arms and legs, which recover better if they are exercised. If there are voice problems, we like to know from patients early after discharge from hospital as we can plan voice rehabilitation and may ask a speech pathologist for help. If your work involves a lot of speaking we may recommend 'light voice duties' to help with recovery.

### Parathyroid/Calcium Complications

The parathyroid glands are located adjacent to the thyroid gland. Most people have four parathyroid glands, two on each side. These glands have an important role in regulating the amount of calcium in the body and work to ensure that the level of calcium dissolved in the blood stays within a narrow range. Having your calcium at normal and stable concentrations in the blood stream is important for normal muscle and nerve function and also in the longer term, maintaining bone strength.

The parathyroid glands are small, about the size of a grain of rice, and have a delicate blood supply, which is shared with the thyroid gland. Even with very careful surgery, this blood supply can be injured and the parathyroid glands lose their function. When this happens, the important parathyroid hormone (PTH) may fall, leading to low blood calcium levels. The immediate result of this is numbness, muscle cramps and pins and needle sensations

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(usually around the lips initially) and these symptoms relate to the important role calcium plays in regulating nerve and muscle function. This low calcium problem is usually easily fixed with giving calcium in tablet form and in more severe cases calcium through a drip and also Vitamin D.

About 25% of patients have some form of fall in calcium after surgery to remove both lobes of the thyroid gland and may require calcium tablets in the short term (a month or two). Patients who have Graves' disease or who have had previous thyroid surgery are more susceptible. Fortunately permanent failure of parathyroid function (permanent hypoparathyroidism) requiring lifelong calcium and vitamin D tablets is rare (approximately 0.5% of cases). Other than the inconvenience of taking daily tablets, these patients are otherwise generally healthy and live normal lives.

If we are worried about the viability of one or more of the parathyroid glands during surgery we may implant them into a nearby muscle in the neck (without making the neck incision any larger than normal). Here the parathyroid gland develops a new blood supply and almost always starts to work well after six weeks. This technique allows the rate of permanent hypoparathyroidism to be close to zero.

### Wound Healing

Just as every patient is different, so is every thyroidectomy scar. If you have a thin and long neck and the thyroid gland is not significantly large, the scar is usually about six centimetres along the collar line. The scar may need to be longer than this in situations where the neck is short and wide or the thyroid gland particularly large.

As the neck is a part of the body, which is usually visible in a clothed person we pay special attention to wound closure to ensure that as good a cosmetic result is achieved as possible. Most patients will have a faint and barely visible scar twelve months after surgery. Some patients are prone to form a raised and red (hypertrophic) scar. This is usually seen in people with darker skin. Even this type of scar usually fades somewhat over six to eighteen months. If a scar is particularly hypertrophic we may ask a plastic surgeon to advise regarding treatment, however we usually wait for 12 months before referring. Some patients have numbness of the skin above the scar, which can be problematic in men who shave. This numbness usually resolves over about six months. Unsatisfactory scars affect perhaps 3% of patients. Early in the postoperative period some patients experience a feeling of tightness in the neck. This symptom settles in most cases over about two weeks but may take up to six months to subside. There may be a feeling of difficulty swallowing during that time and occasionally neck pain and an irritating cough. Rarely these symptoms can be persistent, but not usually severely.

## Thyroid Replacement – Thyroxine

When the thyroid gland is removed, replacement of the main product of the thyroid gland, thyroid hormone, is necessary to maintain health. This hormone is given in the form of Thyroxine (trade name Oroxine) which is a tablet form of the same chemical that is called T4 in the blood test you have had recently. This hormone is an important regulator of the body's metabolic activity and acts a bit like an accelerator in a car.

Usually a dose of 100 to 150 mcg per day is sufficient for most people. When you start on Thyroxine following thyroidectomy we test the blood after about six weeks to assess whether the prescribed dose is appropriate. Six weekly blood tests are repeated until the correct dose of Thyroxine for the patient has been reached and thereafter approximately yearly. A stable level is usually easy to maintain, although the dose needed may gradually get less, as you grow older. It is important to appreciate that Thyroxine is required on a lifelong basis after thyroidectomy.

The prescription is inexpensive and there are 200 tablets in a bottle. We give various combinations of 50, 100 and 200 mcg tablets according to the dose prescribed. The dose lasts a few days in the blood stream so missing a dose and catching up occasionally is not a problem. Most people take Thyroxine when they first get up in the morning. Thyroxine is absorbed through the intestine and the absorption can be affected by binding to calcium on calcium tablets and vitamin supplements containing calcium. Milk and soy products have large amounts of calcium, which can have this effect. We advise taking Thyroxine on an empty stomach one hour before any of these products are consumed.

You should not adjust the dose of Thyroxine according to how you may feel on any given day because the effect of changing the dose is delayed. It is always best to determine any dose changes in Thyroxine on the basis of a blood test and advice from Associate Professor Niles or your GP.

## Getting Back to Normal Activities

Most patients recover quickly from their thyroid operation and are well enough to leave hospital the next morning or on Day 2. We advise taking it easy at home for about two weeks after the operation. Some patients feel unable to relax, or who have their own business to run return to work after about five days. Occasionally the recovery time may be longer, for example if the voice is recovering and we take this into account when providing a medical certificate.

As the neck muscles may be stiff and occasionally a little sore, it is important not to drive until you can turn your head comfortably to have full vision of the inside lane and when reversing.

Heavy household work should be avoided for two weeks and really heavy manual work, especially involving heavy lifting avoided for six weeks. Similarly, contact sport should be avoided for six weeks, but exercise to maintain fitness such as walking, running and swimming and cycling can be started after seven to ten days.

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