PERTH THYROID CANCER CLINIC

PATIENT INFORMATION: THYROIDECTOMY

FAQS

Why is thyroid surgery performed?

1. A Known or Suspicious mass for Thyroid Cancer.

2. Benign Thyroid Conditions which by needing repeated investigation such as needle biopsy over time are proving a source of anxiety and inconvenience for the patient.

3. Compressive Thyroid Enlargement to the point where there are symptoms of obstruction to swallowing, breathing, speaking or a constant cough.

4. Cosmetically Unacceptable Thyroid Enlargement.

5. Thyroid Overactivity where other types of control are less effective.

6. Painful Thyroid Conditions that rarely do not settle with time or have not responded to treatment.

7. Genetic Thyroid Diseases that may lead to the development of thyroid cancer in the future where pre-emptive surgery reduces the risk of cancer spreading.

Is thyroid surgery safe?

All operations, even small ones can have complications. All surgeons have a few complications, and these can happen even when the operation went well. The only way to be absolutely certain of not having a complication is not to have surgery at all. When a problem arises, we try to recognise it as early as possible and take steps to correct the problem. I only recommend an operation if the condition being treated is significant or there is a risk of serious illness if the condition is not treated.

Thyroidectomy is generally safe and very commonly performed surgical procedure. In most instances the operation proceeds without incident and patients recover very quickly. However, like all surgical procedures, thyroidectomy does carry a very small risk of more serious complication.

What are the specific risks?

1. Injury to the nerves which supply the voice box:

The nerves to the voice box run in very close proximity to the thyroid gland and are carefully preserved by the thyroid surgeon.

Thyroid surgeons who perform more than 100 thyroid operations per year have been shown to have a significantly lower complication rate than surgeons who perform less. Our surgeons perform well in excess of 100 thyroid operations per year.

We recommend using the voice as much as is comfortable as the larynx muscles like muscles in the arms and legs recover better if they are being exercised. If there are voice problems, we like to know from patients early after discharge from hospital as we plan voice rehabilitation and may ask a speech pathologist for help.

Temporary hoarseness occurs in about 10% of patients. Nerve bruising accounts for only half of these. Other causes include bruising of the voice box (eg; anaesthetic tube) or wound swelling.

Permanent paralysis on one nerve occurs in about 1% of patients and hoarseness of voice is permanent although with voice strengthening exercises improves over time.

Very rarely (mostly with advanced thyroid cancer) both nerves do not work and a tracheostomy (breathing tube in the neck) is necessary, in some cases permanently.

2. Injury to the parathyroid glands:

The parathyroid glands are located in close proximity to the thyroid and are responsible for regulating the body's blood calcium level. They are about the size of a grain of rice and easily bruised. The parathyroid glands have the same blood supply as the thyroid, and even with very careful surgery, they can be injured.

If we are worried about the health of one or more parathyroid glands we may implant them into the left sternomastoid muscle (the large diagonal muscle on the front of the neck). Here they develop a new blood supply like a skin graft and work well after 2-3 months. Hypoparathyroidism (lack of parathyroid function) does not usually interfere with normal daily living or work.

Temporary injury to the parathyroid glands occurs in about 10%. Patients who have had previous thyroid surgery, thyroid cancer surgery or Graves' disease are more susceptible. Injury results in a low blood calcium level. Early symptoms of low calcium include numbness, cramps, and pins & needles commonly affecting the hands, feet and lips. These are easily fixed by giving Calcium or Calcitriol (Vitamin D). If there is a temporary problem this is usually better within 2-3 weeks but sometimes takes 6-12 months to settle. We supply all thyroidectomy patients with caltrate (calcium) and calcitriol (Vitamin D) to circumvent symptomatic hypocalcaemia.

Permanent parathyroid injury occurs in 1-2% and this requires lifelong Calcium replacement. Long term lowered calcium can lead to a loss of bone substance or osteoporosis. There may also be an increased risk of developing cataracts, so an eye check and measurement of bone strength may be needed.

3. Bleeding:

The thyroid gland being an endocrine organ has a profuse blood supply. Even a small amount of blood collecting around the throat can cause swelling and breathing problems. For this reason we watch thyroid patients closely after their surgery to look for any signs of swelling. A drain tube may be used which will help in this regard.

Bleeding occurs in about 1 in 100 cases. It most often happens in the first 6 hours after surgery and this is a period during which you will be closely observed following your surgery. It is important to stop aspirin, arthritis medicines and anti-platelet drugs at least 10 days before surgery. Warfarin treatment needs special arrangements.

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What about the scar?

Most thyroidectomy wounds are about six centimetres in length and very heal well. Your surgeon may make an incision larger than this if the thyroid gland is particularly large or the neck short. Surgical safety should always take precedence over cosmesis. The wound is sewn with a dissolvable suture so that no suture material will need to be removed after surgery and provides a good cosmetic result in most patients.

People of Asian and African descent have a tendency to form thicker scars (hypertrophic scars) than those of Caucasian origin. This is seen more in young people with darker skin. The scar usually gets better with time but may take 6 to 18 months. Occasionally a plastic surgeon may be consulted regarding treatment of thicker scars however we would normally wait at least a year post-operatively before referring.

Some patients experience a feeling of tightness in the neck. This symptom settles in most cases over 2 weeks but may take up to 6 months to subside. There may be a feeling of difficulty swallowing during that time and sometimes pain and an irritating cough (see neck exercise section).

Do you perform robotic thyroidectomy?

No. Whilst this procedure avoids a neck incision, it requires considerable more dissection to reach the thyroid, with incisions made in the armpit, behind the ear or on the chest wall. This can result in extensive bruising, shoulder stiffness, more pain, and numbness.

This technique was developed in Korea where for cultural reasons patients are reluctant to have a neck scar. In addition, poor wound healing is more common in Asia populations. Traditional surgery here in Australia achieves exceptionally good cosmetic results in the vast majority of patients. For these reasons robotic thyroidectomy is more common in Asia and has largely not

been adopted in the rest of the world. Indeed, the FDA in America has withdrawn support for robotic thyroidectomy in the USA.

Will any other treatments be necessary after total thyroidectomy?

1. Thyroid hormone replacement:

Thyroxine controls metabolic activity and is essential for your well-being. When the whole thyroid gland is removed, life-long replacement of thyroxine (trade name Oroxine) will be necessary. Usually 100 to 150 µg per day is enough. We test this with a blood test 6 weeks after surgery and 6 monthly afterwards. You should not adjust the dose according to how you feel as the effect of changing the dose is delayed.

Thyroxine dose lasts a few days in the blood stream so missing a dose and catching up occasionally is not a problem. Most people get in to a routine of taking the tablet on getting up in the morning. Thyroxine is absorbed through the intestine and the absorption can be affected by binding to calcium in calcium tablets and vitamin supplements containing calcium. Milk and soy products have large amounts of calcium which can have this effect. Thyroxine is best taken a half an hour before breakfast and should not be taken with caltrate which should be taken with food.

2. Calcium supplements:

A transient drop in you calcium level is common following total thyroidectomy. Your calcium level will be measured in hospital. Depending on the result, you will be discharged on Caltrate and Calcitriol for 2 weeks. You will need to see your local doctor after 2 weeks for a blood test to check your calcium and PTH level. If your levels are normal your then stop Calcium and Calcitriol then. Alternatively, if Calcium or PTH are still low after 2 weeks, continue taking them and get your local doctor to reduce the calcium supplementation according to the protocol overleaf (please take this document for your local doctor to refer to). Symptoms of low calcium are tingling around the mouth or hands, or cramping (“tetany”) of the hands and feet. Should you develop these symptoms you should see your local doctor or emergency department after-hours, to arrange for your calcium level to be checked immediately. 1-2% of patient will require calcium supplementation in the long term.

3. Radioactive Iodine Ablation.

Thyroid cancer patients may need one or more treatments with oral radioiodine to complete the cancer treatment after surgery. This is administered under the supervision of a nuclear medicine specialist to whom your thyroid surgeon will refer you if needed.

POST-OP INSTRUCTIONS:

Wound Care

Your wound will be covered with a tape which should be left in place for 2 weeks. This will be removed by your surgeon at your first post-op visit. You will be able to wash with the tape in place and pat it dry with a towel when you are finished. If the dressing becomes soggy, it will need to be replaced. Do not be concerned by a small amount of dried blood under the tape.

Activity

You should avoid strenuous activity for 2 weeks following surgery. Most non-vigorous activities can be performed without need to worry. Apply commonsense and if an activity causes discomfort than stop.

Local Symptoms

There are a variety of neck symptoms which are common post-operatively and should not cause you any concern as they are usually self-limiting after several weeks. These include neck tightness, choking and having difficulty swallowing. Neck exercises will help alleviate some of these symptoms (see the accompanying pamphlet). In addition, swelling around the neck wound is common and also usually self-limiting. This may benefit from daily massage of the neck. If the swelling is bothering you, needle aspiration can be arranged with your surgeon. Numbness of the skin above the wound may also be experienced and may last several months before returning to normal.

Late Complications

If the skin around you wound becomes red, hot and swollen or if you notice a pusy discharge, you may be developing a wound infection. This is a rare complication. You will need to seek the attention of your local doctor straight away who will prescribe antibiotics.

Follow-up

Surgeon:

A visit at 1 week to have your tape removed and first post-operative check-up.

If thyroid cancer is diagnosed after this procedure, depending on the pathology, a completion thyroidectomy will be arranged within 2 weeks of the initial procedure.

If re-operation is not possible in this time frame, the tissue will be too hostile until a further 2-3 months have passed. Thyroid cancer patients need to be seen 6 monthly for 2 years and annually thereafter depending on risk for recurrence.

GP:

TFT blood test should be checked 6 weeks after surgery to ensure the remaining thyroid is producing adequate levels of thyroid hormone. If thyroxine replacement is necessary a blood test will again be necessary to ensure the thyroxine dose is adequate. This should not be performed before 6 weeks have passed.

INSTRUCTIONS FOR GPs WEANING CALCIUM

Your patient has recently had a thyroidectomy. Thank you for overseeing calcium withdrawal as per the following schedule. They have been asked to see you weekly for calcium and PTH check. *Note that serum Calcium will be normal on replacement but don't wean until PTH has normalised.*

If your patient is on caltrate alone:

For patient taking Caltrate 2 tab twice daily

If Calcium and PTH normal after 2 weeks:

Caltrate 1 tab twice daily

If Calcium is normal the following week:

Caltrate 1 tab once daily

If Calcium is normal the next week:

Cease Caltrate

If your patient is taking caltrate + calcitriol:

For patients taking Caltrate 2 tab twice daily + calcitriol 1 tab twice daily

If Calcium and PTH normal after 2 weeks:

Caltrate 2 tab twice daily + calcitriol 1 tab twice daily

If Calcium is normal the following week:

Caltrate 2 tab twice daily

If Calcium normal the following week:

Caltrate 1 tab twice daily

If Calcium is normal the following week:

Caltrate 1 tab once daily

If Calcium is normal the next week:

Cease Caltrate

If you have any concerns during withdrawal please do not hesitate to contact your patient's surgeon.

NECK EXERCISES:

Neck pain and stiffness is common following thyroid surgery. During your surgery the neck is extended (bent backward) for the duration of the procedure which can in some case last for several hours. It is not surprising that many people will experience neck tension and muscle spasm. Patients with pre-existing neck problems will be more susceptible.

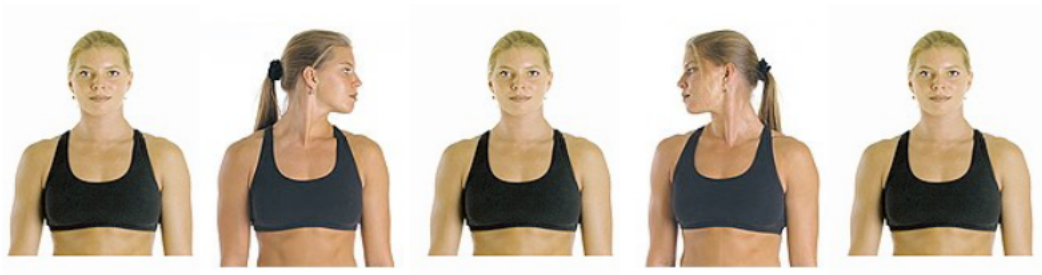
To reduce the impact of neck strain during surgery we recommend neck exercised before and after surgery. Exercises should be performed until a gentle tension is felt. Hold the position for 5 seconds before returning to the starting position. Each exercise should be performed for 10 counts, 10 day before and 10 days after surgery.

Place your fingers in a grove behind your head. Apply pressure for 5 seconds. Repeat 10 times.

1. Flexion / Extension

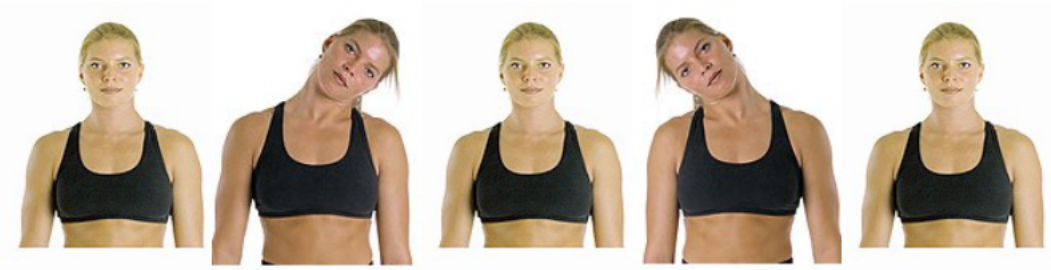
Look straight ahead. Slowly lower your chin towards your chest and hold for 5 seconds. Then return to the starting position. Repeat 10 times.

2. Left and Right Rotation



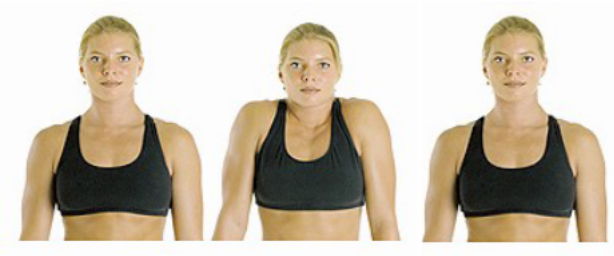
Look straight ahead. Slowly turn your head to the left and hold for 5 seconds. Then return to the starting position. Slowly turn your head to the right and hold for 5 seconds. Return to the starting position. Repeat 10 times.

3. Left and Right Lateral Extension



Look straight ahead. Slowly turn your left ear towards the left shoulder and hold for 5 seconds. Return to starting position and repeat on the right hand side. Repeat 10 times.

4. Shoulder Shrug



Look straight ahead. Slowly raise both shoulders up and hold for 5 seconds. Repeat 10 times.

5. Acupressure points

Place your fingers in a grove behind your head. Apply pressure for 5 seconds. Repeat 10 times.