



PATIENT INFORMATION: PARATHYROIDECTOMY

FAQS

What are the causes of Primary Hyperparathyroidism (PHPT)

1. Solitary benign parathyroid tumour = Adenoma (90%).
2. Four gland parathyroid enlargement = Hyperplasia (8%).
3. Double benign parathyroid tumour = Double Adenoma (1-2%).
4. Malignant parathyroid tumour = Carcinoma (1%).

What are the benefits of surgery for PHPT?

Parathyroid Hormone (PTH) is produced in large quantities in this condition. PTH increase blood levels of Calcium by taking it from bones. Bones are weakened and osteoporosis is made worse. High blood calcium is associated with kidney stones, gastric reflux and ulcers, pancreatitis, tiredness, muscle weakness, bone pain, poor memory and depressed mood.

Primary hyperparathyroidism is commonly due to a benign tumour of a parathyroid gland. Surgery is the only way to permanently treat this problem. Following surgery, the PTH levels normalise rapidly, there is an improvement of quality of life and improvement of bone mineral density. We believe that all patients with primary hyperparathyroidism who are fit for surgery should have this surgery.

What is MIPS?

Minimally Invasive Parathyroid Surgery is a focused procedure performed through a small incision, usually 2-3 cm long. It relies on accurate localisation of the abnormal parathyroid gland through pre-operative imaging. This minimises operative trauma and makes the procedure quicker and even safer.

Am I a suitable candidate for MIPS?

MIPS can be offer the patient who have there parathyroid tumour adequately localised on a 4D CT, Sestamibi scan or an Ultrasound scan. Approximately 70-80% of patients with primary hyperparathyroidism have adequate localisation. Patients who are not suitable for this procedure have non-localising scan, previous neck surgery or neck radiotherapy, suspicion of cancer, familial hyperparathyroidism, more than one overactive gland or are on lithium treatment. The majority of our patients with primary hyperparathyroidism will be suitable for MIP.

Is parathyroid 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.

Parathyroidectomy 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, parathyroidectomy does carry a very small risk of more serious complication.

What are the specific risks of parathyroid surgery?

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

The nerves to the voice box run in very close proximity to the thyroid and parathyroid glands and are carefully preserved by your endocrine surgeon.

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 2% of patients. Nerve bruising accounts for only half of these. Other causes include bruising of the voice box (e.g; anaesthetic tube) or wound swelling.

Permanent paralysis on one nerve occurs in <0.5% of patients and hoarseness of voice is permanent although with voice strengthening exercises improves over time.

2. Failure to find the abnormal parathyroid gland:

98% of patients are cured after parathyroid surgery. Those who are not cure usually are found to have an ectopic or supernumerary gland. Parathyroid's are occasionally found outside of their usual position and even in some cases within the chest or within the thyroid gland itself. A capable parathyroid surgeon will be able to find most parathyroid glands in the neck. If this proves difficult your surgeon may need to remove half of the thyroid gland or the thymus gland which very occasionally contain parathyroid tissue.

3. Bleeding:

Even a small amount of blood collecting around the throat can cause swelling and breathing problems. For this reason we watch parathyroid patients closely after their surgery to look for any signs of swelling. Bleeding occurs in <0.5% 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.

What about the scar?

Most MIPS wounds are about 2-3 centimetres in length and very heal well. If a parathyroid exploration is necessary, the wound will be 5-6 cm long. 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).

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 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.

Late Complications

If the skin around your 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.

Calcium Supplements

The calcium levels drop to normal very soon after successful parathyroid surgery. Sometimes this drop is associated with symptoms such as tingling around the mouth or hands, or cramping (“tetany”) of the hands and feet. Your calcium levels will be checked prior to discharge from hospital. If they are normal no calcium supplements will be required. Should the calcium levels fall below normal you will be discharged on Caltrate. You will need to see your local doctor weekly after your 2 week post-op surgical appointment for a blood test to check your calcium and PTH level. If your levels are normal your local doctor will reduce the calcium supplementation according to the protocol overleaf (please take this document for your local doctor to refer to).

Follow-up

Surgeon:

A visit at 2 weeks to have your tape removed and first post-operative check-up.

GP or Endocrinologist:

Weekly after 2 weeks only if Calcium is abnormal, to have your calcium and PTH levels checked and reduce calcium supplementation according to the protocol. At 3 months for final check-up. Your GP or Endocrinologist may need to see you more frequently if there are any specific problems. Note that 1-3% of patients may not have a satisfactory drop in the calcium or PTH levels following surgery.

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.

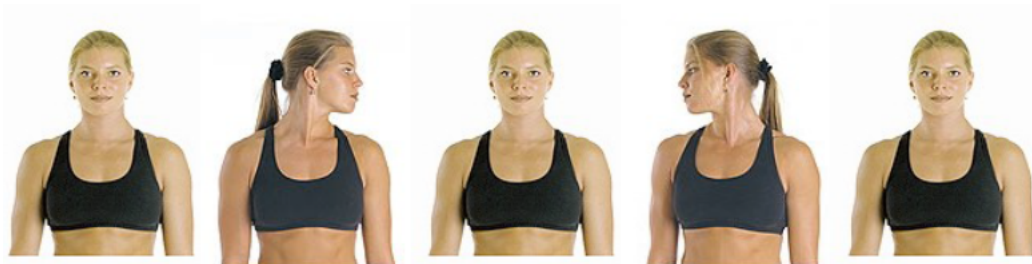
Place your fingers in a grove behind your head. Apply pressure for 5 seconds. Repeat 10 times.

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



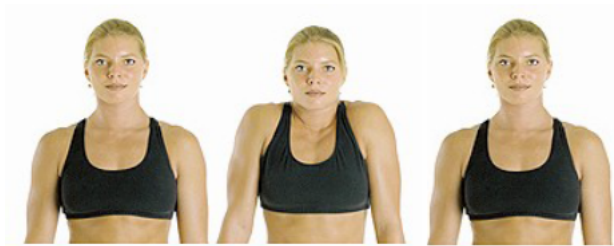
Look straight ahead. Slowly turn your head to the left and hold for 5 seconds. Then return to the starting position. Slowly turn your head to the right and hold for 5 seconds. Return to the starting position. Repeat 10 times.

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 groove behind your head. Apply pressure for 5 seconds. Repeat 10 times.