Why do I need surgery?
Surgery is the recommended treatment for several disorders of the thyroid gland. These may include one of the following:

- Large thyroid or multi-nodular goitre (a goitre is an enlarged thyroid gland) causing obstructive symptoms of breathing or swallowing difficulties
- Solitary nodule or thyroid adenoma (a benign tumour)
- Thyroid cancer
- Graves’ disease (hyperthyroidism or thyrotoxicosis)
- Recurrent thyroid cyst
- Where the type of nodule is unclear

It is important that your surgery is performed by an experienced surgeon who regularly performs thyroid operations. Do not hesitate to ask the surgeon any questions that are on your mind, such as the number of thyroid operations they perform, any possible complications (including their own complication rates), as well as any alternatives to surgery. The medical profession recognises your right to participate in decisions about such an important matter, and you will be asked to give your informed consent before surgery.

What can I expect before the operation?
Once you decide to have surgery you will have a pre-operative assessment, which includes thyroid function, calcium, and other blood tests. You may also have a chest X-ray, CT scan and/or an electrocardiogram (ECG). Your vocal cords may also be checked. The hospital will explain how long you can expect to stay in hospital (usually one to four days), and what to take into hospital with you.

What happens during the operation?
The operation is performed under a general anaesthetic. Thyroid operations are usually straightforward when performed by an experienced surgeon. The main types of thyroid surgery are:

- total thyroidectomy (removing all of the thyroid gland)
- lobectomy or hemithyroidectomy (removing half of the thyroid gland)
- near-total thyroidectomy (removing most of the thyroid gland but leaving a little tissue on one side)
- occasionally, isthmusectomy (removal of the central part of the thyroid gland) is performed

The incision is usually made through a lower crease in your neck. Many structures pass through the neck and during the operation the surgeon will take care to identify the various arteries, veins and nerves. Special attention is paid to the nerves that supply your voice box, as well as the blood supply to the parathyroid glands which control your calcium metabolism. The thyroid gland has a very rich blood supply, and to avoid bleeding, the arteries are carefully tied off before removing the gland. After the part of the thyroid that needs to be removed has been taken out, the wound is closed together with the skin. This can be done with stitches (sutures), clips, strips of sticky tape (steristrips) or glue. If stitches are used, these are removed after a few days. Sometimes soluble stitches are used. Small drainage tubes are sometimes placed in the neck to drain away any extra fluid for the first 24-48 hours.

What can I expect after surgery?
After surgery you may feel a little uncomfortable, but this soon passes. If there are no complications you will be ready to go home after a day or so. If there is significant bleeding within the wound you will need to be taken back to theatre, but this is extremely rare and usually within the first 12 hours.
Can the operation affect my voice?
Your voice may sound a little hoarse after surgery, but this is usually temporary. If the main nerve to
the voice box is damaged then your voice may sound husky or breathy, and may be slightly weaker
before. Usually this recovers within six months. When the damage is just on one side, the other
vocal cord often compensates and the voice is often normal or near normal. Permanent problems
arise in approximately one to two per cent of cases. If you have on-going problems with your voice
there are operations available to help. You should ask to be referred to a speech therapy unit and
you may need to see a surgeon who specialises in laryngeal surgery. A small operation can be
performed to help correct the problem with the vocal cords.

Professional singers, public speakers, teachers and others who deal with young children may notice
that it is harder to project their voice after surgery, and sometimes the voice may appear to ‘wobble’. This
is because another nerve that supplies one small muscle in the voice box has been affected by
the surgery. This is also uncommon but happens in about six cases in every 100, but usually
recovers within six months of surgery. If there is temporary or permanent damage to the nerve then
speech therapy and a referral to a specialist voice unit can help.

If you use your voice professionally it is important that you discuss this fully with your surgeon before
the operation.

Can the operation affect my parathyroids?
The parathyroids are four small glands the size of a small pea that are next to, or occasionally within,
the thyroid. They control the calcium balance in your body. Your surgeon will make every effort to
preserve these, but even in the best of hands their blood supply may be affected as a result of thyroid
surgery so that they may stop working. In addition, one or more parathyroids may be unavoidably
removed. This can result in hypoparathyroidism (or low blood calcium level) which can be temporary
or permanent. Fortunately you do not need all four parathyroids, but sometimes it takes days, weeks,
or even months after the operation for the remaining parathyroids to be able to completely control
your calcium balance. This is because the parathyroids often get part of their blood supply from the
thyroid and have to adjust to a slightly different blood supply after the operation.

If you experience a tingling sensation in your hands, fingers or around your mouth after surgery you must alert the medical staff since this may be a sign that your calcium levels have dropped, usually
as a result of a decreased blood supply or damage to one or more parathyroids.

Routinely blood tests are taken on the evening of your surgery, or the next morning, to check the
calcium level. If it is too low, it may be checked later. This is the most common cause of delayed
discharge from the hospital. Overall over 40% of patients are discharged home with some calcium
and/or Vitamin D tablets but these will be able to be stopped in the majority of patients and it does
not mean that you will need to take calcium tablets for life.

The parathyroid glands often recover their function within six to eight weeks. After total thyroidectomy
about five to ten per cent may have permanent hypoparathyroidism and will need to take calcium
and/or vitamin D for life. Lymph node surgery for thyroid cancer increases these risks.

What will my scar look like?
Once the scar heals it is usually hardly noticeable. In some people, though, it can become tender, red
and thickened. This is called a hypertrophic or keloid scar. Keloids are more common in young
people especially those with red hair and those from Africa or the West Indies, but they can arise in
all races in an unpredictable but fortunately rare way. Steroid tape and injections can be used to
decrease the redness and elevation. Laser treatment can sometimes help. If you have had problems
with previous scars, mention this to your surgeon.

What about follow-up after the operation?
You will be given a date for a follow-up appointment to check on how you are, and your doctor will
arrange for blood tests to check your thyroid function about six to eight weeks after the operation. If
you have a total thyroidectomy you will need to take levothyroxine tablets for the rest of your life immediately after surgery to replace the thyroxine that was produced by your thyroid gland. If you have a lobectomy or hemithyroidectomy you may develop hypothyroidism (under-active thyroid) if the amount of gland left is unable to maintain normal thyroid function. About one in five of patients who have part of their thyroid removed will need to take a small amount of levothyroxine to top up the thyroxine produced by the remaining thyroid gland. If you have had more extensive neck surgery to remove some of your lymph nodes you may be referred to a physiotherapist.

Some important points….

- Thyroid surgery should be performed by an experienced thyroid surgeon
- You will be asked for your informed consent. Don't hesitate to ask any questions beforehand
- Alert medical staff immediately if you have any tingling in your hands, fingers or face after surgery. You may need calcium supplements
- The scar is usually hardly noticeable after six months to a year
- After thyroid surgery you should have a thyroid function blood test approximately once a year
- If you notice any symptoms of hypothyroidism such as lethargy, weight gain, or mood changes, you should see your doctor and ask for a blood test
- The main complications of thyroid surgery are voice problems and low calcium. These are usually temporary but in a small number of cases may be permanent
- Alternatives to thyroid surgery for hyperthyroidism are antithyroid drug therapy or radioactive iodine treatment

Thyroid problems often run in families and if family members are unwell they should be encouraged to discuss with their own GP whether thyroid testing is warranted.

If you have questions or concerns about your thyroid disorder, you should talk to your doctor or specialist as they will be best placed to advise you. You may also contact the British Thyroid Foundation for further information and support, or if you have any comments about the information contained in this leaflet.

**The British Thyroid Foundation**

[www.btf-thyroid.org](http://www.btf-thyroid.org)

The British Thyroid Foundation is a registered charity: England and Wales No 1006391, Scotland SC046037

Endorsed by:
The British Thyroid Association - medical professionals encouraging the highest standards in patient care and research

[www.british-thyroid-association.org](http://www.british-thyroid-association.org)

The British Association of Endocrine and Thyroid Surgeons - the representative body of British surgeons who have a specialist interest in surgery of the endocrine glands (thymoid, parathyroid and adrenal)

[www.baets.org.uk](http://www.baets.org.uk)

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