PROCEDURE

Thyroid gland removal

Surgery to remove part or all of the thyroid gland in the neck.

PURPOSE
Remove diseased thyroid tissue to treat enlargement, overactivity, or cancer

PROCEDURE TYPE
Therapeutic, sometimes diagnostic; surgery through a neck incision

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General

HOW LONG IT TAKES
About one to three hours, based on extent

PREPARATION
Fasting and medication adjustments, especially blood thinners

RECOVERY
Often overnight; no driving until safely moving your neck

MAIN RISKS
Bleeding, voice changes, low calcium, infection

RESULTS
Surgical findings immediately; pathology usually within several days

Overview

Thyroid gland removal, called a thyroidectomy, is surgery to remove part or all of your thyroid. The thyroid is a butterfly-shaped gland at the front of your neck. It makes hormones that help control your metabolism, heart rate, temperature, and energy use.

The amount removed depends on why you need surgery:

The removed tissue is usually examined in a laboratory. This can confirm whether a lump is cancerous and help plan further care.

- A lobectomy removes one half, or lobe, of the thyroid
- A total thyroidectomy removes all or nearly all of the gland
- A completion thyroidectomy removes remaining thyroid tissue after an earlier operation

Why the procedure is performed

Thyroid surgery may be offered to:

If cancer is present, nearby lymph nodes may also need removal. Your surgeon should explain how much thyroid tissue they plan to remove and why.

- Remove thyroid cancer or a lump that may be cancerous
- Treat a large thyroid, called a goitre, that presses on the windpipe or food pipe
- Treat an overactive thyroid when medicines or radioactive iodine are unsuitable
- Remove thyroid nodules that are growing or causing swallowing, breathing, or pressure problems
- Obtain a definite diagnosis when needle biopsy results are uncertain

Who should and should not have it

Thyroidectomy may be appropriate when the likely benefit of removing the thyroid outweighs the risks of surgery. Your options depend on the type and size of the thyroid problem, test results, symptoms, general health, and your preferences.

Surgery may be delayed if you have an uncontrolled overactive thyroid. Thyroid hormone levels may need treatment first because severe overactivity can make anaesthesia and surgery less safe.

An active infection, uncontrolled heart or lung condition, or another serious illness may also need treatment before surgery. Elective surgery is usually postponed during pregnancy unless there is a clear reason not to wait.

Blood-thinning medicines can increase bleeding risk, but stopping them can also be dangerous. Your surgical and prescribing teams should make a plan for these medicines. Do not stop them on your own.

Surgery may not be the right choice if a small, low-risk nodule can be monitored, if symptoms can be controlled with other treatments, or if the risks of anaesthesia and surgery are greater than the expected benefit.

How to prepare

Your treating facility's own instructions take priority because fasting rules and medicine plans

differ between hospitals.

Tell the surgical team about all medicines, vitamins, supplements, allergies, previous neck surgery, bleeding problems, and reactions to anaesthesia. Ask specifically what to do with blood thinners like warfarin or apixaban , diabetes medicines, and weight-loss medicines. Do not stop prescription medicine unless instructed.

You may have blood tests to check thyroid function and calcium levels. An ultrasound, biopsy, or other scan may be reviewed. If you have voice changes, previous neck surgery, or a tumour near the vocal cord nerves, your vocal cords may be examined before surgery.

Follow the facility's instructions about when to stop eating and drinking. Arrange for someone to take you home and stay with you if you are discharged the same day.

Remove jewellery from around your neck. Smoking can slow healing and increase breathing problems, so stopping before surgery can help even if the operation is close.

What happens during the procedure

You receive a general anaesthetic, so you are unconscious and do not feel the operation.

The surgeon usually makes a horizontal cut low across the front of your neck. They separate the neck muscles to reach the thyroid and carefully detach the planned amount of tissue.

The surgeon works close to the nerves that move your vocal cords and the parathyroid glands. The parathyroid glands are small glands behind the thyroid that control calcium levels. The aim is to protect both.

If cancer has spread or is suspected in nearby lymph nodes, some nodes may also be removed. A temporary drain is sometimes placed to collect fluid, but many people do not need one.

The incision is closed with stitches, surgical glue, or adhesive strips. You then move to a recovery area while the anaesthetic wears off.

Recovery and what to expect afterward

Pain: Your neck and throat may feel sore, tight, or stiff. Swallowing can be uncomfortable for a few days. Pain is usually managed with medicine recommended by your surgical team. Mild hoarseness may occur from the breathing tube or irritation around the vocal cord nerves.

Eating: You can usually drink and begin eating soon after surgery. Soft foods may be more comfortable at first. Unless told otherwise, return to your usual diet as swallowing becomes easier.

Activity: Gentle walking is encouraged. Avoid strenuous exercise, heavy lifting, and activities that pull on your neck until your team says they are safe. Follow wound-care instructions and avoid soaking the incision until it has healed.

Driving: Do not drive home. Resume driving only when you are no longer taking medicines that impair alertness and can comfortably turn your head, check blind spots, and make an emergency stop.

Work: Some people return to desk work within one or two weeks. Jobs involving lifting, driving, or strenuous activity may require more time. Your recovery may take longer after extensive surgery or lymph-node removal.

After a total thyroidectomy, you will need lifelong thyroid hormone replacement. After a lobectomy, the remaining thyroid may make enough hormone, but blood tests are needed to confirm this.

Risks and possible complications

Thyroidectomy is major surgery near important nerves, glands, blood vessels, and the windpipe. Possible complications include:

Low calcium and voice changes may be temporary or permanent. The risk is affected by the extent of surgery, the underlying condition, and whether you have had previous neck surgery.

- Bleeding in the neck: A collection of blood can cause rapid swelling and pressure on the airway
- Low calcium: Reduced parathyroid function can cause tingling around the mouth or fingers, cramps, or muscle spasms
- Voice changes: Injury or irritation to a vocal cord nerve can cause hoarseness, weakness, or difficulty projecting your voice
- Infection: The wound may become red, painful, swollen, or produce discharge
- Anaesthetic complications: These include breathing, heart, or medication reactions
- Scarring: A visible neck scar is expected, although it usually softens and fades over time

Results and follow up

Your surgeon can usually tell you what was removed and whether there were unexpected findings soon after the operation.

Laboratory examination of the tissue, called pathology, usually takes several days and sometimes longer. The report describes the type of thyroid tissue, whether cancer is present, and whether it reaches the edges of the removed tissue or nearby lymph nodes.

Routine follow-up may include a wound check, calcium testing, thyroid hormone blood tests, and review of the pathology report. If cancer is found, your team will discuss whether you need monitoring, radioactive iodine, additional surgery, or another treatment.

Take thyroid hormone or calcium supplements exactly as prescribed. Blood tests help determine whether adjustments are needed.

Alternatives

The realistic alternatives depend on the reason surgery was offered.

Ask what each option would mean for symptom control, certainty of diagnosis, future treatment, and the chance of needing another procedure.

- Monitoring: Ultrasound and sometimes repeat biopsy can follow a low-risk nodule. This avoids surgery now but requires ongoing appointments and may not provide a final diagnosis.
- Thyroid medicine: Medicine can control an overactive thyroid. It avoids an operation but may require long-term treatment, monitoring, and management of side effects.
- Radioactive iodine: This can reduce thyroid activity or shrink some overactive thyroid tissue. It avoids an incision but works gradually, does not remove a suspicious mass, and may cause permanent underactivity.
- Radiofrequency or ethanol ablation: These treatments destroy selected nodules using a probe or injected alcohol. Recovery is often shorter, but they are not suitable for every nodule, may require repeat treatment, and do not provide a complete surgical specimen.
- Active surveillance for selected small thyroid cancers: Close ultrasound monitoring may avoid immediate surgery. It accepts the possibility of growth or later treatment and requires reliable long-term follow-up.
- Removing one lobe instead of the whole thyroid: This may preserve thyroid function but can leave tissue that later needs monitoring or another operation.

When to call your healthcare team

Seek emergency help immediately for:

Contact your surgical team urgently for tingling around your mouth or fingers, muscle cramps, twitching, or spasms. These may be signs of low calcium and need prompt assessment.

Also contact the team for fever, spreading redness, pus, worsening pain, repeated vomiting, or a wound that opens.

Mild bruising, soreness, and temporary hoarseness can occur during routine recovery. Mention symptoms that are not improving at follow-up. Report persistent or worsening voice changes sooner, particularly if they affect breathing, swallowing, or drinking.

- Rapidly increasing neck swelling or tightness
- Difficulty breathing, noisy breathing, or inability to swallow saliva
- Heavy or uncontrolled bleeding

Common questions

Will I be asleep?

Yes. Thyroidectomy is usually performed under general anaesthesia, so you are unconscious throughout the operation.

Can I drive home?

No. Arrange for another adult to take you home. Wait to drive until you can turn your neck safely, are fully alert, and are no longer taking medicine that affects driving.

How painful is thyroid removal?

Most people describe soreness, tightness, or discomfort rather than severe pain. Your throat may also hurt from the breathing tube. Pain should gradually improve.

When will I know the results?

The surgeon can discuss the operation soon afterward. The final pathology report usually takes several days, although complex testing can take longer.

Will I have a scar?

Yes. The incision is usually placed low in a natural neck crease. It may look red or raised at first and often becomes less noticeable with time.

Will I need thyroid hormone tablets?

You will need lifelong replacement after a total thyroidectomy. After removal of one lobe, you may or may not need it. Follow-up blood tests will show whether your remaining thyroid makes enough hormone.

Sources

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