

Thyroid surgery



The thyroid gland is a butterfly-shaped organ found in the neck and wraps around the trachea (windpipe). The thyroid produces hormones that play a major role in regulating the body's metabolism, and it depends primarily on a sufficient supply of iodine to produce these hormones.

The vocal cord nerves (left and right recurrent laryngeal nerves), which are located in the immediate vicinity of the thyroid, are responsible for movement of the vocal cords.

As there is a slight risk of damage to the recurrent laryngeal nerves during surgery, the doctor may want to have your vocal cord function checked by an ENT specialist prior to surgery. The body has four parathyroid glands. Two parathyroid glands lie behind each "wing" of the thyroid gland: two on the left-hand side, and two on the right. The parathyroid glands are important for calcium regulation in the body.

When is surgery necessary?

There are various reasons why surgical intervention becomes necessary for your thyroid gland. Briefly summarised:

- The thyroid is overactive (hyperthyroidism). When medications alone are either not or insufficiently effective, surgery may become necessary.
- A thyroid nodule (lump) has developed in the thyroid gland. This nodule may be the cause of the hyperthyroidism; however, it may also be a malignant tumour.
- The thyroid can contain many nodules which become so large that individuals experience difficulty with breathing and swallowing.
- The nodules may also be a purely cosmetic problem.

Depending on the reason for your surgery, it may be necessary to remove all or part of the thyroid gland.

The surgery

Your specialist has discussed with you which surgery is necessary and why. Generally speaking, there are three different types of surgery:

- For a total thyroidectomy, the thyroid gland is removed entirely. This procedure is used for some forms of thyroid cancer.
- For a sub-total thyroidectomy, both of the thyroid gland lobes are largely removed. This procedure is used when the thyroid is either overactive or enlarged.
- For a hemithyroidectomy or lobectomy, one lobe of the thyroid gland is removed entirely. This procedure is performed when it is uncertain whether the nodule located in the removed lobe is benign or malignant.

You will need to fast so that your stomach is empty before the surgery.

Thyroid surgery is performed under general anaesthesia and takes between approximately one-and-a-half to two hours. The anaesthetist will give you information about the anaesthesia.

During the thyroid surgery, you will lie with your head tipped as far backwards as possible. A horizontal incision will be made low down in the front of the neck so that the thyroid gland is more readily accessible. The thyroid gland will subsequently be removed either partially or entirely. Naturally, it is important during this procedure to preserve the vocal cord nerves and the parathyroid glands. Depending on the type of surgery, one or two drains will be inserted and left behind in the area of operation to remove blood that accumulates there. These drains can usually be removed after 24 hours.

Post surgery

In general, the pain experienced by patients after this surgery is comparable to that of a light sore throat and can be well tolerated. The pain will disappear after a few days. The wound heals quickly, usually leaving behind only a “fine” scar. You will be able to go home one or two days after the surgery, and you will be able to return to work quickly. Sometimes, the doctor will have your vocal cord function re-examined by the ENT specialist after the surgery. Appointments will be scheduled for you to come for an outpatient check-up by both the surgeon and the internist.

Possible complications

No surgical procedure is entirely without the risk of complications.

Thyroid surgery carries a normal risk of complications such as thrombosis, pneumonia, secondary bleeding or a wound infection. There are a few specific complications possible as well. The more complicated the surgical procedure, the greater the risk of damaging the structures that lie nearby the thyroid gland. The risk of complications with a sub-total thyroidectomy or lobectomy is very slight. The risk of developing complications with a total thyroidectomy is somewhat greater. Specific complications can include:

- injury to the vocal cord nerve (0.5-2.5%);
- parathyroid hormone deficiency (1.5% with total thyroidectomy).

A total thyroidectomy typically involves cases of thyroid cancer; as such, it is a more extensive and, consequently, riskier procedure. Injury to the vocal cord nerve will usually only be temporary. If, due to injury, a vocal cord unexpectedly starts functioning poorly, treatment from a speech therapist can really help patients to strengthen and retrain their voices. Speaking loudly or yelling, however, will then no longer be possible.

Other changes to vocal cord function may occur even if the vocal cord nerve has not been damaged. The change in function may be due to damage to the neck muscles or other nerve branches.

Low blood calcium levels are caused by damage to or removal of small parathyroid glands during surgery. Low levels of calcium are evident through tingling in the fingertips and, in the worst case, through muscle cramps. These symptoms are treatable with calcium tablets and sometimes vitamin D preparations.

If a great deal of thyroid tissue is removed during surgery, the situation in which the thyroid gland produces insufficient hormones will remain. This may cause symptoms such as rapid fatigue, sluggishness, chilliness, constipation, dry skin, the drying out and loss of hair and swelling of the eyelids and tongue. These symptoms can be easily combated by administering thyroid hormone tablets.

If too little thyroid tissue is removed during surgery from a patient with an overactive thyroid, that situation will continue to exist. This can, however, usually be corrected with the proper medication.

Thyroidectomy, therefore, is generally a safe surgery with few complications and a smooth recovery. You will generally no longer have to take medication after surgery to regulate the functioning of your thyroid. However, you will need to be examined by your surgeon and internist in the Outpatient Clinic to check whether your thyroid is still functioning properly. Of course, the above depends on the reason you had surgery in the first place. In case of a malignant tumour, the after-treatment may be entirely different and will be further specified.

Finally

Should you have any questions, please contact the Surgery Outpatient Clinic at +31 (0)88 - 979 42 86 from Monday to Friday inclusive between 8.00 to 17.00 hours.

Outside of these hours, you can call +31 (0)88 - 979 40 40.

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