

## Thyroidectomy

Thyroidectomy is an operation in which one or both sides of the thyroid gland are removed. The most common reasons for thyroidectomy include a cancerous or potentially cancerous growth or nodule in the thyroid gland, hyperthyroidism, and symptoms due to pressure in the neck from a thyroid mass such as difficulty breathing or swallowing.

The procedure is usually done under general anesthesia with you completely asleep. The extent of surgery (removal of one or both lobes) may sometimes be determined in the course of surgery after microscopic examination of tissue removed during the surgery.

After surgery, it is very common to have difficulty swallowing. Occasionally, swallowing may even be a little painful. This pain usually resolves within 24 to 72 hours. Bleeding or infections are also possible short term complications. Although rare in thyroid surgery, some patients may develop an unsightly thick scar or keloid. This can be addressed in the office with steroid injections if needed.

General risks of surgery include complications related to anesthesia, bleeding, and infections. In very rare circumstances, airway obstruction may occur and a tracheotomy may become necessary to gain access to the airway. This is an extremely rare life-saving measure and every effort would be taken to avoid it. Two complications specific to thyroid surgery are hypocalcemia and vocal cord weakness or paralysis.

Hypocalcemia, or low blood levels of calcium, may occur if all the parathyroid glands aren't working properly. This condition is caused by injury, inadvertent removal, or interference with the blood supply of four tiny glands called parathyroid glands. These glands are located within or very close to the thyroid gland. If you only have one side of the thyroid removed, the risk of this problem is essentially zero presuming you haven't had any surgery on the opposite side. Hypocalcemia is usually temporary, but sometimes may require calcium supplements if sufficiently pronounced. Permanent hypocalcemia is fortunately very rare. All patients that have undergone total thyroidectomy are discharged on calcium supplements for at least a week. Some are also given a vitamin D supplement to aid in absorption of the calcium. If the parathyroid glands aren't working, this could be longer.

Vocal cord weakness or paralysis may be caused by swelling, stretching, or injury to the recurrent laryngeal nerve, which passes very close to the thyroid gland. This nerve travels to the muscles that move the vocal cords. There is one on each side of the thyroid. The vast majority of injuries to the nerve are temporary, but can take several months to resolve. Occasionally, it is permanent. If that is the case, options are available to try to improve voice quality. Your voice could also be affected by some swelling or bruising of the vocal cords by the breathing tube placed at the beginning of surgery. This generally resolves within a few days.

During surgery, a portion of your thyroid may be removed and immediately examined by a pathologist using a quick 'frozen section' analysis. In this quick interpretation, a majority of

the time, the pathologist is able to distinguish between benign and malignant (cancerous) growths. If the pathologist identifies a cancer, the entire thyroid is generally removed, and potentially also some lymph nodes in the vicinity. The pathologist will always take the specimen back to the lab after surgery and look at it more in depth over the course of several days. In a very small percentage of patients, the pathologist may identify a cancer despite the initial 'frozen section' being deemed benign. In this unfortunate scenario, we may need to return to surgery for removal of the remaining thyroid tissue.

It is important to not exercise or do any rigorous activity for 10 days after surgery to minimize the risk of a swelling, bleeding, and unsightly scarring. You will have a piece of tape holding down the sutures in your neck. Keep that in place until your follow-up visit one week after surgery. You can take a shower two days after surgery, but just allow the water to run over the tape. Don't scrub the area or peel off the tape. In the weeks after surgery, keep the incision moist with Vaseline or Dr. Rogers Restore ointment. Also, minimize sun exposure to the scar for several months to optimize healing.

All patients that have had their entire thyroid gland removed, and about 35% of patients that have had only half of the thyroid removed, will need to take a hormonal supplement for the rest of their life in the form of a pill. It takes about six weeks for the hormone levels to equilibrate after surgery, at which time you will have a blood test with Dr. Ashbach or your endocrinologist. Based on that blood test, dose adjustments may be needed. If the dose is too high or too low, your energy and overall mood may be affected.