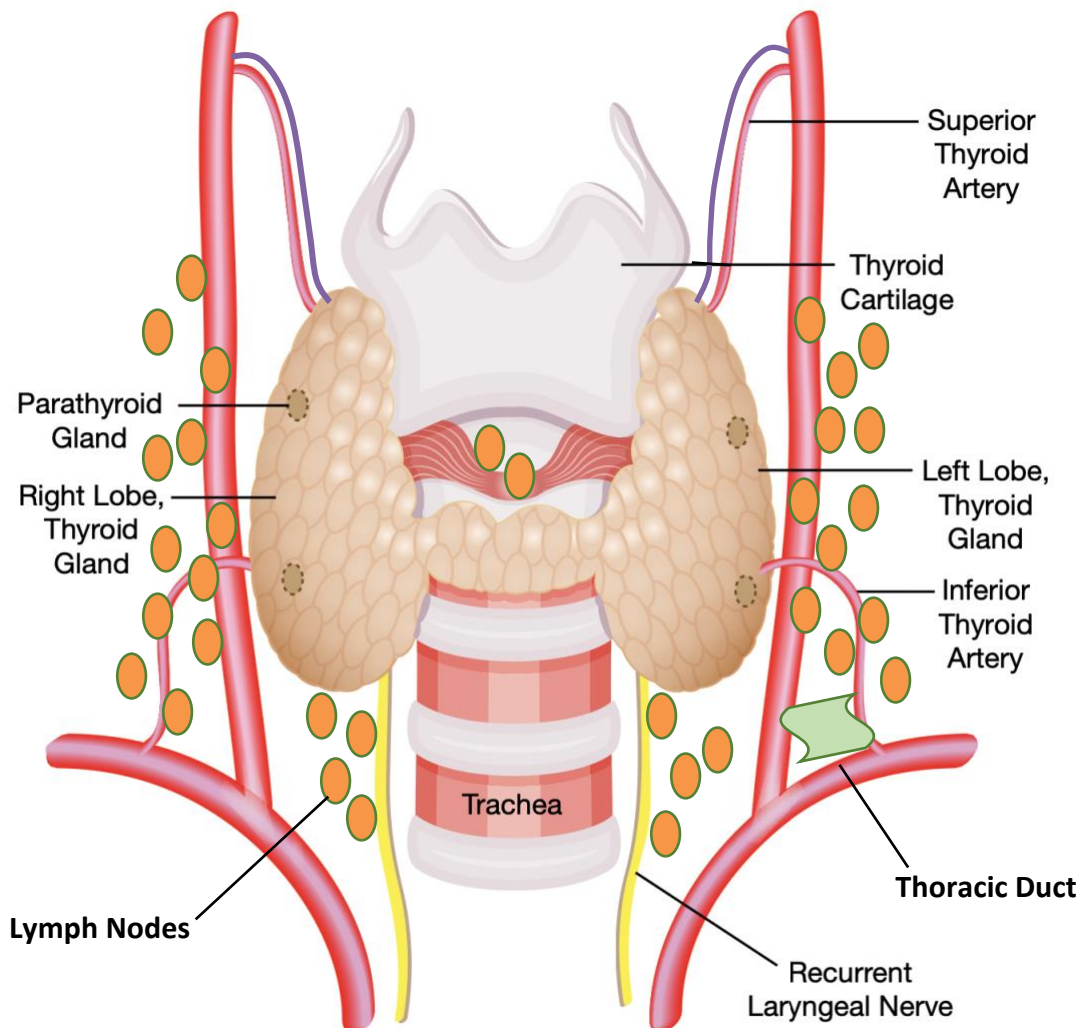


Thyroid Cancer Surgery



Thyroid and Parathyroid Glands

The **thyroid gland** is one of several important glands of the body that make up the endocrine system. The thyroid gland is located over the trachea (wind pipe), just below the Adams apple. The thyroid gland is made up of a left lobe and a right lobe that are connected by a bridge of thyroid tissue in the middle called the isthmus. There are several types of cancers that arise from different cells in the thyroid gland, the most common is **papillary** thyroid cancer. Other types of thyroid cancer are **follicular**, **Hurthle cell**, **medullary** and **anaplastic**. The thyroid gland uses **iodine** as a building block to make thyroid hormone. **Thyroid hormone** is important for regulating how all the cells in the body function and can affect the body's metabolism, brain, heart and muscles. When the thyroid gland is removed, it is necessary to take thyroid hormone replacement (levothyroxine).

Treatment of thyroid cancer involves removing the whole thyroid gland (**total thyroidectomy**). You may also need lymph nodes removed at the time of your surgery; this is called a neck dissection. You may have a **central neck dissection** (lymph nodes are removed from behind the thyroid gland) or a **selective lateral neck dissection** (lymph nodes are also removed from the side of your neck). Your endocrine team may also recommend **radioactive iodine** (I-131) treatment after your surgery.

Thyroid Cancer Surgery

Many important structures located near the thyroid gland are encountered during thyroid cancer surgery. The **parathyroid glands** are located just behind or adjacent to the thyroid gland, and sometimes parathyroid glands may be stuck to the thyroid gland or located within the thyroid gland itself. The parathyroid glands produce parathyroid hormone (PTH) and PTH is responsible for controlling calcium levels in your blood. The parathyroid glands are delicate and share the same blood supply as the thyroid, therefore they often need time to recover after thyroid surgery. While they recover, you will need to take calcium supplements to maintain a normal calcium level in your blood. If a parathyroid gland is accidentally removed during surgery, it can be put back into the muscle of your neck (parathyroid autotransplantation or reimplantation) where it will usually start to function like a normal parathyroid gland.

The right and left **recurrent laryngeal nerves** are located behind the thyroid gland. The recurrent laryngeal nerves travel to the larynx (voice box) and control the vocal cords. The recurrent laryngeal nerves are important because they control your voice and keep the vocal cords open. There are also **superior laryngeal nerves** that travel with the blood supply to the upper part of the thyroid gland. The superior laryngeal nerves control the pitch and strength of your voice. Stretching or bruising these nerves can cause hoarseness and voice changes.

The **thoracic duct** is part of the lymphatic system and collects lymph (fluid that flows through lymph nodes and lymph channels) and chyle (digested fats from your intestine) to recycle it back into the blood system. The thoracic duct and nearby small lymphatics are very thin and fragile and can be injured during a neck dissection, and most often during a selective lateral neck dissection on the left side.

After a **total thyroidectomy**, you will likely need to stay in the hospital overnight for monitoring and have your bloodwork checked in the morning. When your thyroid gland is removed, you will need to take thyroid hormone replacement (levothyroxine) and this will be started the morning after your surgery. You will need to purchase calcium supplements before your surgery because you will need to take calcium supplements after your surgery while your parathyroid glands recover. Sometimes the parathyroid glands are very stunned and you need to take a prescription form of activated vitamin D to help your body absorb calcium.

If you have a **selective lateral neck dissection** as part of your surgery, expect to have a **drain** (soft plastic tubing coming out of your skin next to your incision) after your surgery. Usually, the drain will stay in while you have one or two meals in the hospital. The output of the drain is observed after these meals and the surgeon will decide if the drain can be removed. Sometimes, the drain will need to stay in place for several days or weeks. If you go home with the **drain**, you will be given specific instructions on how to care for the drain. You will be asked to keep a log of how much is coming out of the drain and bring the log with you to your follow up clinic visit. You may also need to follow a low fat diet after surgery. If this is needed, your surgeon will explain why this is necessary and provide additional information and guidance.

Recovery usually takes 1-2 weeks. Most of the postoperative soreness and discomfort will be relieved with chloraseptic throat lozenges (Cepacol) or spray to numb the throat, acetaminophen (Tylenol) and ibuprofen to reduce inflammation, and the use of an ice pack to reduce pain and swelling. Please plan to **purchase these products and over the counter medications before your surgery**. You may be offered a short course of narcotic pain medication, though most people do not require pain pills. After surgery you can eat a regular diet. Your incision will be covered with surgical glue, and you can shower when you return home. You should not drive for a few days after surgery until your neck soreness has resolved.