

## Thyroidectomy

Thyroidectomy is an operation in which one or both lobes of the thyroid gland are removed. The most common indications for thyroidectomy include a large mass in the thyroid gland, difficulties with breathing related to a thyroid mass, difficulties with swallowing, suspected or proven cancer of the thyroid gland and hyperthyroidism (overproduction of the thyroid hormone). Your physician will discuss the need for lobectomy or thyroidectomy based on your history, the results of a physical examination and tests. The most common tests to determine whether thyroid surgery is necessary include a fine needle aspiration (FNA) biopsy, thyroid scan, ultrasound, x-rays and/or CT scan, and assessment of thyroid hormone levels.

The thyroidectomy or lobectomy procedure, done under general anesthesia, generally takes one and a half to two hours. The incision will be placed in a natural skin crease, thus minimizing any scarring. The extent of surgery (a partial lobectomy vs. a total thyroidectomy) may be determined 1) preoperatively by the results of an FNA or other tests, 2) by the results of a frozen section (microscopic examination of tissue removed during surgery) or 3) by results of the final pathology following an initial surgery.

1. An FNA biopsy provides an accurate diagnosis approximately 85% of the time. If the FNA biopsy results indicate a benign (noncancerous) process, a partial lobectomy may be all that is indicated. However, when the FNA results are nondiagnostic (15% of the time) or when a thyroid lesion is suspicious despite a benign FNA, a frozen section is helpful to confirm that there is no malignancy. If the FNA biopsy or frozen section provides results consistent with a malignant (cancerous) process, a total thyroidectomy is indicated.
2. If the results of the preoperative FNA or other tests are unclear, the extent of surgery may be determined during the course of surgery by a frozen section. A frozen section provides an immediate reading by a pathologist to clarify a benign vs. a malignant process and may be helpful in determining if the total thyroid gland should be removed. When a frozen section is used approximately 90% of the time the results help to guide the surgeon in his decision to stop and remove no more thyroid tissue or proceed to remove the entire thyroid gland, and/or other tissue in the neck.
3. Approximately 8-10% of the time when a frozen section is indicated during surgery, the pathologist cannot make a definitive diagnosis. If this occurs, the decision on how best to proceed is left up the discretion of the surgeon. If the lesion looks highly suspicious in the nature, then your surgeon may elect to perform a total thyroidectomy. However, most of the time, your surgeon will elect to be conservative, only doing the lesser procedure and wait until a final pathology report (usually one to two weeks) is available. This means that there is the chance of a second procedure depending on the final pathology.

## KNOWN RISKS AND COMPLICATIONS

<b>Risks</b>	Two complications specific to thyroid surgery are hypocalcemia and vocal cord weakness or paralysis. Hypocalcemia – low blood levels of calcium – may occur after complete removal of both thyroid lobes. This condition is caused by injury to four tiny glands called parathyroid glands, which are located within or very close to the thyroid gland. Hypocalcemia is usually temporary, but sometimes may require calcium supplements if sufficiently pronounced. Fortunately, permanent hypocalcemia is rare. Patients who have all of the thyroid gland removed have a higher risk of hypocalcemia postoperatively.
<b>Hoarseness</b>	Swelling, stretching, or injury to the recurrent laryngeal nerve, which passes very close to the thyroid gland, may cause vocal cord weakness or paralysis. Temporary hoarseness may result. Again, this is uncommon, usually a temporary complication. Permanent vocal cord paralysis is rare.
<b>Scarring</b>	Although rare in thyroid surgery, some patients may develop a thick scar or keloid. Please notify your doctor or nurse if you have any history of keloid scars.
<b>Swallowing</b>	After surgery it is very common to have difficulties and/or pain with swallowing. The pain usually resolves within 24-72 hours.
<b>Bleeding or Infection</b>	Bleeding or infection is also a possible short-term complication as is numbness and stiffness in the neck. Numbness and stiffness most commonly lasts about six weeks while the incision heals with permanent numbness being a rare exception.
<b>IV for Fluids</b>	Because swallowing may be uncomfortable after surgery there may be poor oral intake of fluids. You will have an IV for fluids postoperatively until you are able to drink a quantity sufficient to maintain hydration.
<b>Anesthesia</b>	Complications from anesthesia are known to exist. These complications are quite uncommon in otherwise healthy patients but may occur in any patient.

## PREOPERATIVE INSTRUCTIONS

<b>Map and Directions</b>	At the preoperative visit, your surgeon's staff will provide a map and directions to the hospital including where to meet the hospital nurses and anesthesiology team.
<b>Food and Drink</b>	Nothing to eat or drink after midnight the evening before the procedure. This includes all food, liquids, water, candy, mints or gum. You may brush your teeth. Your procedure will be cancelled if you do not follow these instructions.
<b>Medications</b>	Please notify us of any medications and the dosage (including insulin) or allergies you may have. Your hospital nurse will inform you as to which daily medication to take the morning of surgery with just a sip of water.
<b>What to Avoid</b>	Please avoid any aspirin or ibuprofen (Advil®, Aleve®, etc.) or Vitamin E for one week before and one week after surgery. Tylenol® or acetaminophen is ok. If you are on any medications that affect bleeding (such as Coumadin® or Warfarin®) please notify the office immediately.
<b>Do Not Bring</b>	Do not bring valuables (cash, credit cards, watches, jewelry, etc.) to the hospital.
<b>Remove</b>	Please remove all make-up, nail polish and fake nails before surgery. This will help your surgical team evaluate the blood oxygen during your procedure.
<b>Confirm Arrival</b>	Surgery times are established by the hospital, not the surgeon's office. You will be asked to call the hospital on the business day before the procedure to confirm your arrival time, which will be about an hour prior to the procedure. Upon your arrival you will talk with a nurse (who will start an IV), an anesthesiologist and your surgeon before the procedure. You will be given a bag for your personal belongings. These will be given to your family to take to the unit where you will be admitted postoperatively.

Depending on the extent of the surgery, the total perioperative period (which includes the preoperative preparation, the procedure, the recovery room and admission to the post-surgical hospital unit) is about five hours.

## POSTOPERATIVE INSTRUCTIONS

### Wound Care

Following surgery you will have steri-strips along the incision line and a bulb drain just below the surgical incision. The drain will be removed when the drainage is minimal, usually on postoperative day 1 or 2. Removal of this drain has been described by most patients as discomfort rather than pain. You will go home with steri-strips along the incision line which must be kept dry to remain in place. After surgery it is not uncommon to have sensation of fullness or numbness, stiffness and discomfort of the neck. Therefore, hair dryers, curling irons and extremely hot bath water should be avoided or used with the utmost care in the immediate postoperative period. No heavy lifting, bending or straining for 2 weeks.

### Hospital Stay

The length of hospital admission for observation is usually for one or two nights, although length of stay is determined by the extent of surgery. Prior to your hospital discharge, the nurse will assist you to meet the discharge criteria: to drink liquids, walk with a steady gait, urinate, manage your discomfort and to have any drainage under control.

### Results

Pathology results may take anywhere up to two weeks but usually are available after one week to ten days. Our office will notify you as soon as the results are available. If you have not received the results after one week, please call our office at (585) 256-3550.

### Diet

Advance diet from liquids to soft foods to solids as tolerated. Avoid hot liquids or food.

### Medications

You will be given two prescriptions: 1) for pain (Vicodin/hydrocodone) and 2) an antibiotic (Amoxicillin). It is important that you complete the antibiotic as prescribed. Use the pain medication for the first few days. After that, acetaminophen or ibuprofen may be used according to package directions. Most patients will be given a prescription for thyroid replacement hormone (Cytomel® or Synthroid®). Please take it until you are advised to alter the dosage or discontinue it prior to a Nuclear Medicine appointment. No heavy lifting, bending or straining for two weeks following surgery.

### Please Call for

- Difficulty breathing or painful swallowing
- Coughing up blood or persistent bleeding (you may notice some blood-tinged sputum, which is not uncommon)
- Significant swelling of the neck or back of throat
- Pain unrelieved by your prescribed pain medication

### Appointments

Your first follow-up appointment in your surgeon's office will be scheduled for two weeks postoperatively. Immediately following that appointment you will be asked to go to the lab (to check your thyroid hormone and calcium levels). A copy of these laboratory tests will also be forwarded to your primary care physician. If you did not make an appointment before your surgery for a two week postoperative visit, please call the office at (585) 256-3550 to schedule one.

Depending on the final diagnosis of the removed gland, follow-up by your primary care physician, endocrinologist and/or surgeon may be indicated. Your primary care and/or endocrinologists are the experts at adjusting medication dosages as well as monitoring how thyroid medications interact with other medications you may be taking.

If you have not heard the final pathology results after 10 days following your surgery, please call our office to make a follow-up plan.

### Questions?

If you have any questions, please do not hesitate to call on us at (585) 256-3550 and ask for our nurse. We are all here to assist you in any way we can.

### Emergencies

If you have an emergency after hours or on the weekend please call our professional answering service at (585) 258-4840.