

# LARYNGECTOMY

Johns Hopkins Otolaryngology–  
Head and Neck Surgery

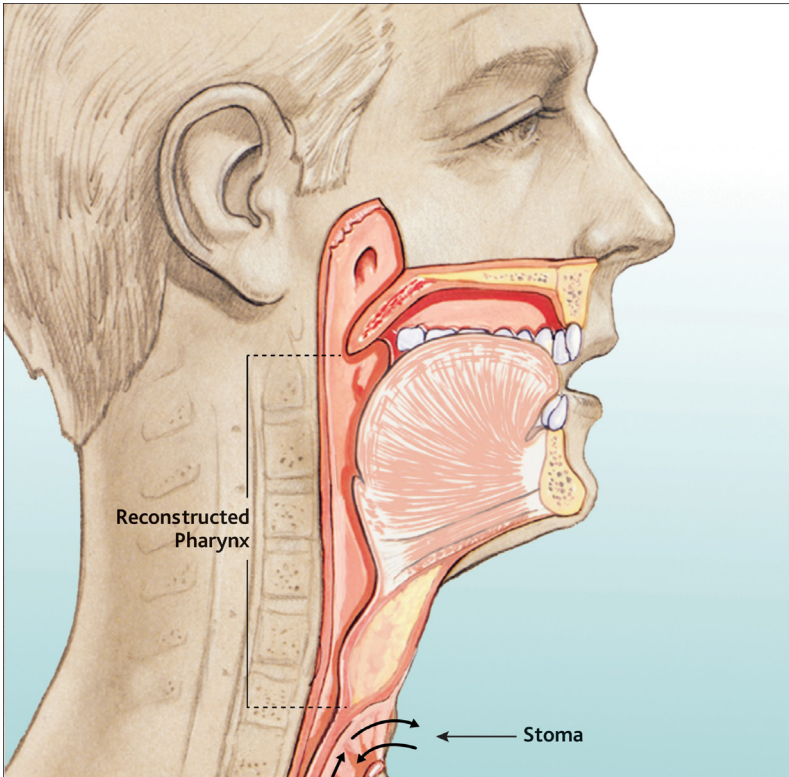


JOHNS HOPKINS  
MEDICINE



## What is a laryngectomy?

- A surgery to remove the voice box (also known as the larynx)
- The breathing passage (also known as the windpipe or trachea) is then brought to the surface of your neck.



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## Why do I need a laryngectomy?

Your surgeon will explain to you why your voice box needs to be removed. The most common reasons for removal are:

- Cancer involving the voice box
- A nonworking voice box that does not allow you to use your voice or to eat safely without food going into your lungs (this is also called aspiration). When a laryngectomy for this reason is performed, the patient may already have a feeding tube through the stomach, and/or a tracheostomy. The goal of the surgery is to give you the ability to eat by mouth safely.

## How will I breathe after a laryngectomy?

- A laryngectomy brings the breathing passage (windpipe) to the neck so that you will no longer breathe through your mouth and nose.
- The stoma is the hole in the neck through which breathing will occur. This hole is the opening to the windpipe. This hole will never close as it is your only way to breathe.

## How will I eat after a laryngectomy?

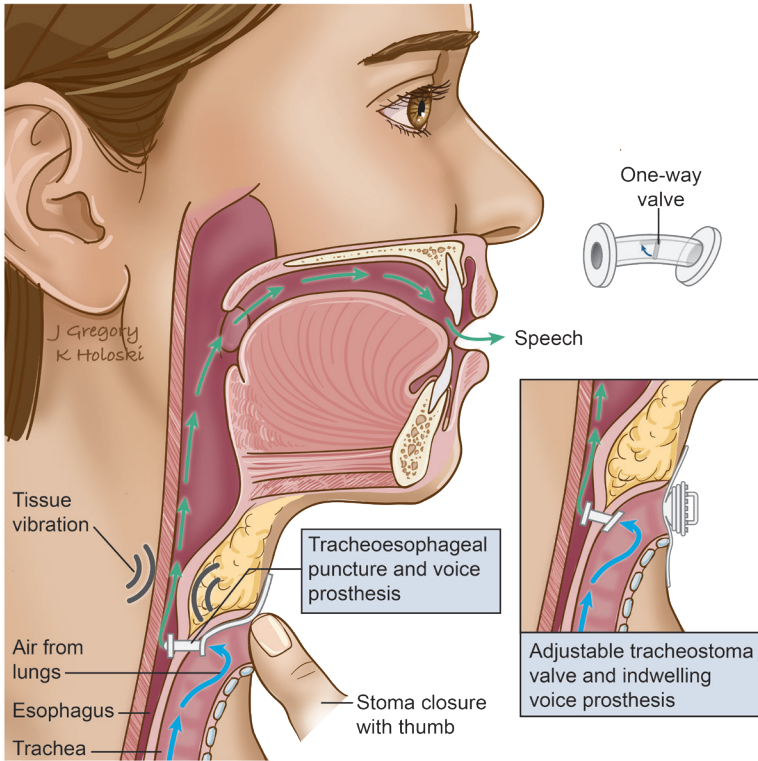
- Patients can swallow relatively normally after recovering from the surgery. Most people return to eating a normal diet.
- Immediately after your laryngectomy, you will not be able to eat by mouth for at least seven days to allow you to heal.
- During this time, you will have a feeding tube that was placed during surgery. This tube, which can be placed through the nose or the belly, will be used to give you liquid nutrition while your body heals.
- The tube may be in place for a short period (e.g., weeks) or it may need to remain longer (e.g., months).
- About a week after surgery, we make sure you are able to swallow without saliva or fluids leaking from inside your throat and into your neck. This will start by taking small sips of liquid and moving slowly toward thicker substances if there is no leak.

## How will I speak after a laryngectomy?

- You will be able to speak after a laryngectomy, however it will not be with your normal voice. There are several options to help you speak after surgery.

### Electrolarynx

- An electronic hand-held device creates vibrations that are passed through the neck, cheek or mouth (with a plastic tube) so your mouth and throat can produce understandable speech.
- You will get an electrolarynx during your hospital stay and a speech language pathologist will teach you how to use it. It is important to practice using it often to feel more comfortable using it.



## Tracheoesophageal puncture (TEP)

- A tracheoesophageal puncture creates an opening between the windpipe (trachea) and food tube (esophagus). A one-way valve allows air to be directed from the trachea to the esophagus.
- The stoma must be covered with a finger to produce sound.
- Vibrations created by air going through the TEP into the throat and mouth are shaped into intelligible speech.
- TEP placement requires a minor procedure that can sometimes be performed at the same time as the laryngectomy. Other times it is done later. This decision depends on other factors.
- If you get a TEP at the time of surgery, you will not be able to use it for speech immediately. You will use an electrolarynx during your hospital stay.



## Esophageal speech

- This method does not require any equipment.
- Air is swallowed down your esophagus and belched out to create vibrations that are used to form words.
- This method is more difficult to learn and is less commonly used

You will meet with a speech-language pathologist prior to surgery to discuss the options above. During this visit, you can try using an electrolarynx. You will be shown models of the TEP and you can watch videos demonstrating all three of these speaking options.

## What can I expect immediately after surgery?

- In the early days after surgery, you may need to depend on nonverbal communication such as with pen and paper, dry erase board, a picture board, text-to-speech apps and pointing/gesturing.
- You will not be allowed to eat or drink anything by mouth for at least seven days while you recover (this is detailed on page 2).
- A speech-language pathologist will help coach you throughout the process of communicating with these different methods. When you are allowed to eat by mouth, the speech language pathologist may also help you learn to swallow more effectively.

## What complications can happen?

### Hematoma (blood collection)

- Bleeding is a possible complication after any surgery. The surgeon ensures there is no active bleeding when the surgical incision is closed.
- This may look like an area of swelling in the neck. The skin may look bruised.

### Seroma

- A seroma is a fluid collection at the surgical site that looks like an area of swelling in the neck. A drain is usually placed in the neck to minimize the possibility of a seroma occurring. A seroma can usually be managed by removing the accumulated fluid with a needle.

## Salivary Leak

- A salivary leak can sometimes be detected by drinking fluids that are dyed and seeing if colored fluids come out of the neck drains.
- Sometimes, an X-ray is performed while the patient drinks a liquid with contrast to see if there is any leak into the neck.
- A salivary leak may show up as neck swelling or may appear as a possible infection.
- A salivary leak may also look like an opening in the neck skin with saliva draining through it.
- If you have a salivary leak, we will most likely have you stop eating and drinking by mouth. You will be fed through a feeding tube for some time, until the leak is healed.
- We may also open your neck incision and pack it with gauze to help with healing from the inside out.
- Most cases can resolve with packing alone, but sometimes, additional surgery is needed.

## Does this treatment follow published guidelines?

We follow the most updated guidelines provided by the National Comprehensive Cancer Network.

## What will I need to do to prepare for surgery?

- Days to weeks before surgery, you will meet with one of our speech-language pathologists. They are excellent at helping patients anticipate the changes they will experience with communication and eating after a laryngectomy.
- We can also arrange for you to meet with other patients who have had a laryngectomy before your surgery.
- We will begin ordering the appropriate equipment that is needed after surgery. This will occur during your preoperative teaching visit by one of our nurses.
- You need to arrange for someone to be with you at home for about one to two weeks after you leave the hospital.



- For your safety, you cannot eat or drink anything after midnight on the day of your surgery.
- Your doctor will let you know which medicines you may need to stop taking on the day of surgery or sooner.
- Your surgeon's office will contact you about any lab tests and consultations that are required.
- Ask a family member or friend to pick you up from the hospital and help you at home during the first week or two after you arrive home.

## **Will I need general anesthesia?**

Yes, this procedure requires general anesthesia.

## **When will I find out about my final pathology results?**

Your pathology results will be available one or two weeks after surgery. You will receive the results in Epic MyChart at the same time your care team gets the results. If anything about your pathology is unexpected, a member of the team will contact you within 48 hours.

## **How will I feel after surgery?**

Patients experience recovery at different rates. You may feel tired for the first couple weeks after surgery. Be kind to yourself — it is important to allow time to rest and recover. Remember that a lot of the discomfort you experience initially is temporary and will improve with time.

## **How long will I be in the hospital?**

You will likely be in the hospital for about seven to 10 days after surgery. You may spend the first postoperative day in the intensive care unit (ICU). You should be able to go to a regular general medical unit the next day.

## **What is normal after surgery?**

- Feeling like it is difficult to breathe is normal. Breathing out of your neck is a completely new and foreign sensation.

- There may be some swelling, redness or puffiness around the incision and neck.
- Pain is very normal after surgery. The goal is not to eliminate the pain completely but to reduce it to manageable levels. However, using too much pain medicine may delay or complicate your recovery.
- Many symptoms may last for several weeks but will eventually improve with time.

### **What else about pain?**

- Pain around the throat and the surgery site is normal.
- Pain is expected after surgery, and the goal is to make you as comfortable as possible.
- You may be given medication to help relieve your pain:
  - If you do not have liver problems, use acetaminophen (e.g., Tylenol or Ofirmev) first. You may need to take it every six hours. Do not take more than 4 grams in 24 hours. If you have additional pain, your doctor may prescribe a narcotic medication. You will need to ask for the narcotic as it is not given to you routinely.
  - If pain is not controlled by medication, let your doctor know.

### **How will I shower? What about swimming?**

- You can shower two days after the surgery. Keep your wound dry, and make sure water does not enter your stoma. Pat the wound dry and do not rub the wound. You will be given a shower shield in the hospital to protect your stoma while showering.
- Swimming or submerging yourself under water can be dangerous. Any water that enters the lungs can cause serious complications such as pneumonia (lung infection) or drowning.

### **How do I care for my wound?**

- You may have stitches with long tails along the edge of your stoma. These can become crusted. Be sure to apply ointment such as petroleum jelly (e.g. Vaseline or Aquaphor) along your stitches twice each day until they are removed. The products will be provided to you by the hospital.



- Keep the head of your bed raised with pillows when you sleep (at least 30 to 45 degrees). This will help reduce swelling.

### **Drains:**

- For most of our patients who have a laryngectomy, a drain is placed in the neck to remove blood and fluid in the wound after surgery. This will be emptied and measured every four hours in the hospital. If you leave the hospital with a drain in place, you will need to empty the fluid at least every 8 hours, and measure and record the amount. You will also need to strip the drain, which you will learn how to do while in the hospital.
- At home, you will need to call a nurse to have your drain removed once the 24-hour output is minimal (typically < 25 cubic centimeter). Details about how to contact the nurse will be included in your discharge instructions.

### **When do I need to see the doctor after surgery?**

- If an appointment is not already made for you, call to make an appointment to see your surgeon about one to two weeks after your surgery.

- If you have staples or nondissolving sutures, they need to be removed about one to two weeks following surgery.

## **Will I require additional treatment following surgery?**

- There is a possibility that you will need more treatment, such as radiation therapy with or without chemotherapy after surgery, depending on your surgical pathology. You will be referred to a radiation oncologist and a medical oncologist if additional therapy is needed.
- Follow-up visits with your surgeon are needed to monitor for return of the disease.

## **How can I prepare for everything I need when I return home?**

- If you go home with a feeding tube, you and your family/loved one will be taught in the hospital how to care for the tube and how to give yourself tube feedings.
- Before you leave the hospital, you and your family will receive all of the instructions needed to care for your laryngectomy at home. It will be important for you to suction yourself in the hospital so that you will feel comfortable suctioning at home.
- Before you leave the hospital, your team will coordinate getting you the supplies and equipment needed to care for your airway at home. Supplies include a portable, battery-operated suction machine, suction catheters, saline bullets and supplies to clean your stoma. The team will arrange for a durable medical equipment company to provide your supplies. Also, during preoperative visits, your speech-language pathologist will help you to obtain the specific laryngectomy products you may need.

## **How will I take care of myself after I leave the hospital?**

- It is normal and expected for the airway to make mucus. Before the surgery, you clear mucus from your nose and mouth. After the surgery, mucus will come out through your stoma (hole).



- Any time you hear or feel mucus rattling in the airway, you must clear it to prevent a mucus plug from blocking the airway and stopping your breathing.
- To clear the mucus, bend forward and cough. If you cannot clear the airway, squirt a sterile saline bullet into the stoma to help clear the mucus, then cough again. Then you will need to suction.

## **Suction**

1. Wash your hands and open the suction kit.
2. Disconnect the Yankauer (blue) suction tip from the suction tubing.
3. Turn on the suction machine.
4. Put on gloves.
5. Open the suction catheter and attach it to the suction machine.
6. Test the setup by dipping the end into a cup of saline water and covering the suction port.
7. Insert saline into the stoma.

8. Breathe in deeply and cough.
  9. Insert the suction tube catheter into the stoma until you start to cough.
  10. Breathe out and try to cough.
  11. Pull the mucus out of your airway:
    - a. Cover the suction port with your thumb.
    - b. Rotate the catheter in a circle-like motion to reach all areas inside the trachea while slowly pulling out the catheter, then catching your breath.
  12. Repeat the steps in number 11 above as many times as needed to clear the airway of extra mucus.
  13. Clear the suction catheter of mucus by pulling saline up through it until it is clear.
  14. Wash your hands when you are done.
- The medical supply company will send up to 90 catheters to you per month. If you use more than three catheters per day, you will need to clean the third catheter for that day with soap and water so that the catheters will last until your new supply arrives. One cleaning kit will be sent per day — clean the kit with soap and water between uses for that day.

## **What if an emergency occurs at home?**

- Until you are able to speak, you might want to keep a tape-recorded message by the telephone that says, “Please send an ambulance immediately to [your address]. I have had surgery and cannot speak. This is a tape-recorded message. My phone number is [your number].” Repeat the message.
- By doing this, you will have a way to ask for help when calling 911. Also notify your local rescue squads about your condition for their records.

## How can I be safe with my new airway at home?

- Do not smoke or be around smoke.
- Do not swim!
- Cover your stoma in the shower.
- Cover your stoma at all times. You will be provided with heat moisture exchange (HME) covers while in the hospital. These should be worn 24-hours a day.
- Be sure your smoke alarm is working. Your sense of smell may be decreased and you might not smell smoke or a gas leak.
- Wear emergency “Neck Breather” bracelet which is provided in the hospital.

**We encourage you to sign up for Johns Hopkins MyChart to communicate with your care team after surgery.**

## Are there other resources or support groups outside of the hospital?

- The American Cancer Society (ACS) (800-227-2345) is a source of information, and it can offer financial support for short term needs related to cancer treatment and rehabilitation. ACS sponsors support groups such as I Can Cope groups and laryngectomy groups. It sponsors housing (Hope Lodge) for people with cancer and their families that may be available at no cost while the patient is receiving treatment.
- The Laryngectomy Club of Montgomery County is a support group for people who have had total laryngectomy surgery. The organizer, Herb Simon, can be reached at 301-588-2352. For more information, visit [theialvoice.org/newpage](http://theialvoice.org/newpage).
- Support for People with Oral and Head and Neck Cancer (SPOHNC) is a national group with local chapters for people with all types of head and neck cancers. Participants, many of whom have had total laryngectomy surgery, meet virtually several times each year. For more information, visit [spohnc.org](http://spohnc.org).



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