Laparoscopic Assisted Esophagectomy

What to expect, how to prepare for your operation, and how to plan for your recovery

An esophagectomy is done to remove diseased portions of your esophagus, the tube that carries food and drink from your mouth to your stomach. The diseased portions of the esophagus are removed and the stomach is pulled up into the chest or up to the neck. At first, your diet will be changed to help you heal. In time, you will be able to eat normal food. The recovery time is 2 to 4 months.

Activity Restriction
Walk 3 to 4 times a day. Do not drive for 4 weeks after your operation or until your doctor says it is okay.

Follow-up Visit
A return visit will be scheduled for you to see your surgeon 1 to 2 weeks after your operation. You will have a follow-up chest X-ray before your visit.

Call the Nurse Advice Line or Your Doctor If:
- You are sick to your stomach, throwing up, or having problems swallowing.
- You have pain or tightness in your chest.
- You have an increase in shortness of breath, or difficulty breathing.
- You have bleeding or drainage that soaks your dressing.
- Your temperature is greater than 100°F or 38°C, or you have chills.
- You have any sign of infection: redness, increased pain, swelling, foul-smelling drainage, or an increase in the amount of drainage from your incision.
- You have concerns that cannot wait until your follow-up visit.
Tests Done Before Your Operation
Keep in mind that you may not need all of these tests:

- **Barium swallow** – You swallow medicine that will show your esophagus on X-ray.
- **Blood tests.**
- **ECG** (electrocardiogram) – A monitor will be attached to electrodes placed on your chest. This allows your doctor to check your heart rate and rhythm.
- **Pulmonary function tests** – You will blow into a machine that measures lung volume.
- **CAT scan** – An X-ray test that takes detailed pictures of your body.
- **Endoscopy or esophagram** – Looks at the inside of your esophagus.
- **PET scan** – Medicine will be injected into your vein and then you will have an X-ray test that will show "hot spots" (problem areas).

How to Prepare for Your Operation

- **Walking** at least a mile a day for 2 weeks before your operation will help to prepare your lungs and prevent pneumonia. Walking soon after your operation helps prevent pneumonia, too. You will sit up on the same day of your operation and walk within the next 24 hours.

Going Home

**Incision Care**
Look at your incision daily for any changes. Watch for signs and symptoms of infection such as redness, increased pain, swelling, foul smelling drainage, or an increase in drainage. The incisions will heal best if you keep them uncovered. Do not use any creams or lotions on your incisions while they are healing.

**Nutrition**
A dietitian will talk to you about what you may eat and drink. The dietitian will recommend a high protein drink to add to your diet until you are able to eat a normal diet. To help you swallow when you start taking food by mouth, you will start with soft foods and work up to more textured foods. While healing, taking small bites and chewing your food thoroughly will help. You may also need to limit liquid intake during meals and eat smaller meals more often.

**Medications**
A pharmacist will review all of your medications with you before you go home. Take your pain medication before your pain gets out of control. If you need oxygen at home, this will be arranged for you.
Recovering in Your Hospital Room
You will be admitted to a unit where the nurses are familiar with your recovery needs.

Pain Control
An epidural catheter will be placed in your back in the pre-op area by your anesthesiologist. You will receive pain medicine through this catheter. The medicine will numb the surgical area so that you will be able to take deep breaths. As you recover, your pain will decrease. You will start taking pain pills and the catheter will be removed. A team of nurses, your anesthesiologist, your doctor and you will work together to make sure your pain is controlled. Be sure to tell your nurse or doctor if your pain is not under control.

Preventing Pneumonia
You will be taught several ways to help you clear mucus from your lungs.

- **An incentive spirometer** is a small device that helps you strengthen your lungs. By holding your mouth over the incentive spirometer tube and inhaling, your breath will raise a small ball. The deeper you inhale, the longer you will hold the ball up, and the more you will help your lungs. You will be shown how to do this at your clinic visit before your operation. Use your device daily before your operation. After your operation, use your incentive spirometer 10 times or more every hour that you are awake.

- **Coughing and deep breathing** will clear mucus. To help decrease your pain with coughing and deep breathing, you will be taught to hug a pillow across your incision. This will help decrease your pain.

- You will go home 7 to 10 days after your operation. You will need to have someone pick you up from the hospital and help you at home for the first week or longer as you recover.

- Let your clinic nurse know if you have any special needs. A social worker is available for any special needs that you have before or after your operation.

24 Hours Before Your Operation
- **Shower** – Using the antibacterial soap your nurse gave you, shower and soap your body. **Do not** use the antibacterial soap on your face and hair. (See directions attached to the soap bottle.) Use your own soap and shampoo on your face and hair. Use clean towels to dry off, and put on clean clothing.

- **Bowel preparation** – You will be given a strong laxative to drink before your operation to clean out your colon.

- **Arrival time** – The pre-surgery nurse will call you by **4:00 p.m.** the night before your operation. If you are having surgery on Monday, the nurse will call you on Friday. If you do not hear from the nurse by **4:00 p.m.**, please call **206-598-6334**. The pre-surgery nurse will tell you when to come to the hospital and remind you to:
  - Not eat or drink after a certain time.
  - Take or not take your regular medications.
  - Take high blood pressure, thyroid, and seizure medications the day of surgery. Use only enough water to swallow your pills.
What to Expect After Your Operation

Waking Up After Your Operation
You will wake up in the recovery room. You will feel sleepy. You will have:

- An **oxygen mask** over your face. This will be changed to nasal prongs (oxygen under the nose) when your lungs are ready.
- A **breathing tube** and **ventilator** to help you breathe. You may require sedation for the breathing tube and ventilator to remain in overnight, until your doctor is sure that you are able to breathe on your own.
- An **IV** in your arm, which will be used to give you medicine for nausea.
- An **epidural catheter**, which is a small tube, placed into your back and is used for pain medicine.
- A **nasal gastric tube** (NG tube), placed through your nose into your stomach. This keeps air out of your stomach to prevent you from throwing up, protects your stitches, and allows you to heal. This tube stays in place for 5 to 10 days. You may be on a clear liquid diet, or may not have anything to eat for 7 days.
- A **feeding tube** may be placed in your intestines, so you can receive nutrition. This stays in place for up to 6 weeks and will be removed at a clinic visit.
- **Chest tubes** may be placed through your skin on either side of your chest. They are hooked up to suction to remove old blood from surgery and to re-inflate your lungs. They will be removed a day or so after your operation.
- A **Foley catheter tube** placed into your bladder to drain your urine.

- **Inflatable stockings** for your legs. These prevent clots from forming in your legs while you are lying down by squeezing your legs every so often.

Types of Incisions

**Transhiatal Esophagectomy** – This method removes most of the esophagus, via incisions in the abdomen and neck. Usually the stomach is attached to the esophagus in the neck. Sometimes, a portion of the colon is used instead of stomach. By not making an incision through the chest wall and deflating the lung, there may be fewer lung problems such as pneumonia.

**Ivor Lewis Esophagectomy** – This method uses both abdominal and chest incisions. The lower half of the esophagus is removed and the stomach is attached to the remaining esophagus in the chest.

**Total Esophagectomy with Three Incisions** (abdomen, chest, neck) – This method is often required for a large tumor in the middle of the esophagus, to detach it from other chest structures and organs.

**Minimally Invasive Surgery** – Some of the incisions mentioned above may be replaced by very small incisions (1 cm or less) and the use of special instruments. This is called thoracoscopy (chest) or laparoscopy (abdomen). At University of Washington Medical Center, we have a great deal of experience with this type of surgery. Not all patients are candidates for this approach. If appropriate, this method may decrease pain, speed healing, and decrease problems. Your surgeon will tell you if this approach is right for you.