

# Minimally Invasive Esophagectomy - GI Patients

During this surgery, part of your esophagus (your “food pipe”) is removed. The portion below, usually the stomach, is pulled up into the chest cavity and reattached to the upper portion of your esophagus. The attachment is called an **anastomosis**.

We make 4 small cuts (incisions) in your chest wall. Approximately 5 small incisions are made in your upper abdomen. Often, a small incision is made in the lower neck. The use of a special scope and instruments allows the surgeon to perform the procedure through these small incisions. Sometimes, a larger incision is necessary to complete the surgery. Larger incisions can require hospital stays of 10 days or more.

The final pathology report will take up to 5-7 working days. We will review it with you in the hospital or when you return for a follow-up visit.

## How to Prepare for Your Procedure

### Medications

Some over-the-counter and prescription medications can interfere with normal blood clotting and may increase the risk of bleeding. Follow the chart to find out if/when to stop taking certain medications.

**If your doctor gives you different instructions, always follow your doctor’s instructions.**

#### **7 days (1 week) before the procedure, stop taking:**

- aspirin and products containing aspirin such as: Alka Seltzer®, Anacin®, Excedrin®, and Midol®. Aspirin is also known as acetylsalicylic acid and ASA
- herbal supplements (fish oil), garlic tablets, vitamins, and minerals i

#### **5 days before the procedure, stop taking:**

- warfarin (Coumadin® or Jantoven®)
- clopidogrel (Plavix®) Note: Your doctor may tell you to stop clopidogrel 7 days before surgery

#### **3 days before your procedure, stop taking:**

- non-steroidal anti-inflammatory medications (NSAIDs):
  - ibuprofen (Advil®/Motrin®)    – etodolac (Lodine®)
  - naproxen (Aleve®/Anaprox®)    – diclofenac (Voltaren®)
  - piroxicam (Feldene®)    – meloxicam (Mobic®)
  - sulindac (Clinoril®)    – nabumetone (Relafen®)
  - oxaprozin (Daypro®)    – ketoprofen

Note: For minor aches and pain control before your procedure, you can take acetaminophen (Tylenol®), unless otherwise instructed by your doctor.

**1 day (24 hours) before your procedure, stop taking enoxaparin (Lovenox®)**

If you take medications to treat or prevent blood clots, talk to your doctor about when, or if, you should stop taking your medication before surgery. These medications include:

- apixaban (Eliquis®)
- cilostazol (Pletal®)
- dabigatran (Pradaxa®)
- dalteparin (Fragmin®)
- eptifibatide (Integrilin®)
- fondaparinux (Arixtra®)
- lepirudin (Refludan®)
- prasurgel (Effient®)
- rivaroxaban (Xarelto®)
- ticagrelor (Brilinta®)
- ticlopidine (Ticlid®)
- tinzaparin (Innohep®)
- tirofiban (Aggrastat®)

## Day Before Surgery

You will be on a **clear liquid diet** the day before surgery so that your esophagus and stomach are empty on the day of your surgery. Clear liquids are ones that you can see through at room temperature (about 72°-78°). **Avoid all red and purple fluids, regardless of whether the coloring is natural or a dye.**

Beverages include:

- Soft drinks (orange, ginger ale, cola, lemon/lime, etc.)
- Gatorade® or Kool-Aid®
- Strained fruit juice without pulp (apple or lemonade)
- Water, flavored waters, tea/coffee (No milk / cream)
- Soups; chicken, beef, vegetable broth or bouillon (no added meats, noodles, or vegetables)

Desserts include:

- Hard candy
- Jell-O® (no fruit toppings or whipped cream)
- Popsicles or lemon ice (no sherbets, sorbets, or fruit bars)

## Evening Before Surgery

- **Do not eat or drink anything after midnight.**

## What to Expect: Day of Your Procedure

- On the day of your surgery, take only the medications approved by your anesthesiologist. Take them with a tiny sip of water. If you are unsure of which medications to take, please call **716-845-3167**.
- When you arrive at the hospital, please go to the 3rd floor (3 West/ASC) and check in with Patient Access (Registration).
- You will need to change into a gown, and the nurse will ask you some questions. Be sure to tell him or her about your allergies and medications. An intravenous (IV) catheter will be placed in a vein in your arm. We can give you fluids and medications through the IV before, during, and after the surgery.
- You may be taken to a “holding area” where the anesthesiologist will meet you before you are taken into the operating room. Your family can’t join you here; they must wait in the surgical waiting area.

## **What You Can Expect: After Your Procedure**

- You may be in the intensive care unit (ICU) for the first 24-48 hours. You will then be transferred to a general surgical floor.
- You may have had some or all of the following inserted during your surgery:
  - a chest tube, which re-inflates the lung
  - a nasogastric tube (NG tube), which removes any excess secretions during the first few days after the surgery to allow the anastomosis to heal
  - a feeding tube (jejunostomy or J tube), which will allow you to receive supplemental nutrition while you are healing
  - a Jackson Pratt (JP) drain, which drains fluid from the surgical incision
- You may have pain from the incisions and tube sites. You will be given pain medication throughout your hospital stay to ensure your comfort. Medications can be given by various routes, including through the IV, the feeding tube, and the chest tube.
- Typically, the NG tube will be removed on the 2nd day after surgery. The neck drain will be removed on the 4th day after surgery and the chest tube on the 5th day after surgery. The exact removal time for these tubes will depend on how quickly you heal. The feeding tube will stay in until you are eating well, and maintaining your nutrition and weight; this can be a few weeks to a few months.
- If you've had minimally invasive surgery and your recovery is proceeding normally, we expect you to be discharged 6-7 days after the surgery.
- You must do coughing and deep breathing exercises so you do not develop pneumonia after surgery. The nurses and respiratory therapists will show you how to perform these exercises using an "incentive spirometer". It is VERY important that you cough up secretions and take deep breaths to prevent breathing and lung problems.

## **What to Expect: Discharge**

- You will be sent home with pain medications. Pain medication can be constipating and you may need a stool softener while you are on the pain medications. Let your doctor know if this is a problem.
- You will be eating when you go home. Typically, it will be a full liquid diet (pudding, ice cream, yogurt, etc.) for about 2-3 weeks. Then your diet will be switched to soft solid food after your postop visit.
- You may develop diarrhea after you go home, which can be due to your diet and/or tube feedings. Let your doctor know if this is a problem.
- You may have sutures (stitches). We will remove them when you return for a postoperative visit.
- Keep your incisions clean and dry. You may shower, unless otherwise directed.
- The chest tube site may drain bloody or straw-colored (yellow) fluid. This is normal. Your clothing can be protected by covering the incision with gauze.
- A dietitian will give you instructions on how to modify your diet after the surgery. You will also be instructed on how to use the feeding tube.

## What to Report to Your Physician

- **Fever of 100.4°F (38°C) or higher**, or fever with chills
- Increased shortness of breath
- Chest pain
- Severe diarrhea
- Persistent vomiting
- Increased redness, drainage, or swelling around the incisions or chest tube sites
- Pus-like or foul smelling drainage from incisions
- A bubbling or sucking sound from an incision
- Feeding tube falls out

## Important Phone Numbers

If you are having symptoms, please call the GI Center at **716-845-4005**. The Center is open Monday to Friday, 8:00 a.m. – 5:00 p.m. Your call will be answered even if the center is closed.

If it is determined you need to be seen, we may ask you to come to the Roswell Assessment and Treatment Center (ATC), which is open 24/7. This is not a walk-in clinic, you need a referral from your provider or the on-call provider.

If you have a life-threatening situation, call 911 or go to the nearest hospital emergency room. Please let us know you have gone to the ER or if you are being admitted to the hospital.