

# Minimally Invasive Esophagectomy for Thoracic Patients

## Minimally Invasive Esophagectomy

A minimally invasive esophagectomy is a surgical procedure to remove part of your esophagus, the tube that carries food, liquids, and saliva from your mouth to your stomach. After removal, another organ, usually the stomach, is brought up into the chest or neck and attached to the remaining upper part of the esophagus. This attachment is called an *anastomosis*.

Four small incisions are made in your chest wall. Approximately 5 small incisions are made in your upper abdomen. Sometimes, a small incision is also made in the lower neck. The use of a scope and other specialty instruments allows the surgeon to perform this procedure through the small incisions. In some circumstances, larger incisions are necessary to complete the surgery. We plan for a 2 week hospital stay, but some people will only need to stay for 8- 10 days.

We will get the final pathology report about 5-7 working days after surgery. We will review it with you while you are in the hospital or when you return for a postoperative visit.

## How to Prepare for Your Procedure

**You must tell your doctor about any use of tobacco, alcohol, or illegal drugs** in the weeks before surgery because they may increase your risk of complications, including death.

Make sure that you have had a dental visit within 6 months and discuss any mouth/throat sores or other oral problems with your doctor. If you do not have an oral exam, you may have a higher risk of pneumonia or other serious infections after the operation.

### Medications

Some over-the-counter and prescription medications can interfere with normal blood clotting and may increase the risk of bleeding. Follow the guidelines in the chart on the next page for information on when to stop taking certain medications, vitamins, and supplements.

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

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

- aspirin, aspirin products, herbal supplements, garlic tablets
- vitamins

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

- warfarin (Coumadin® or Jantoven®)
- clopidogrel (Plavix®) Some procedures will require you stop this medication 7 days before surgery.

**3 days before the procedure, stop taking non-steroidal anti-inflammatory medications (NSAIDs):**

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|------------------------------|--------------------------|
| ▪ ibuprofen (Advil®/Motrin®) | ▪ etodolac (Lodine®)     |
| ▪ naproxen (Aleve®/Anaprox®) | ▪ diclofenac (Voltaren®) |
| ▪ piroxicam (Feldene®)       | ▪ meloxicam (Mobic®)     |
| ▪ sulindac (Clinoril®)       | ▪ ketoprofen             |
| ▪ oxaprozin (Daypro®)        | ▪ diflunisal             |

**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:

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

If you take insulin for diabetes, talk to your primary doctor about what to do on the day of the surgery.

**The Day Before Surgery**

- Drink only clear liquids the day before your surgery.
- The 3 West (ASC) staff will call you between **1 p.m. and 3 p.m.** with your arrival time for the next day. If you do not receive a call by 3 p.m. please call **716-845-8476**.
- Do not eat or drink anything – including water – after **midnight except for medications that your doctor told you to take**. Take them with a very small sip of water.

**Morning of Surgery, at Home**

- You may brush your teeth and rinse with mouthwash. Do not swallow any water or mouthwash.
- Take only the medications approved by your anesthesiologist, with a very small sip of water. If you are unsure about any of your medications, please call the Anesthesia and Preoperative Center at **716-845-1673**.

## What to Expect at the Hospital

- The surgery center, 3 West, is on the 3<sup>rd</sup> floor. It is also called the Ambulatory Surgical Center or ASC.
- The morning of surgery, check in with the Patient Access representative on 3 West (ASC).
- The nurse will ask you some questions. Be sure to tell him or her about your allergies and medications.
- After you put on a gown, a nurse will start an IV (intravenous catheter) to give fluids and medications.
- We will give you medication before the surgery to relax you. If needed, you will also receive antibiotics.
- You may go directly into the operating room (OR) or to a holding area just outside the OR. Your family will not be able to join you in the holding area or the operating room.

## What to Expect After Surgery

- You may be in the intensive care unit (ICU) for the first 24-48 hours. You will then be transferred to a intermediate care or standard hospital room
- You may wake up after surgery to find some or all of these tubes were inserted during your surgery:
  - A chest tube, to re-inflate the lung and drain fluid from the surgery
  - A nasogastric (NG) tube, to remove excess stomach secretions so the anastomosis can heal
  - A feeding tube (jejunostomy or J tube), to give you supplemental nutrition while you are healing
  - A Jackson Pratt (JP) or similar small silicone drain, to drain fluid from the surgical site
- Pain: You will be given pain medication to ensure your comfort. Always let your nurse and doctor know if you are having pain. Medications may be given through the IV, the feeding tube, and the chest tube.
- Deep Breathing/Spirometer: To help prevent pneumonia, you must do coughing and deep breathing exercises. The nurses and respiratory therapists will show you how to do these exercises and use an incentive spirometer. **It is VERY important to cough up secretions and take deep breaths.**
- Walking: To help prevent blood clots and pneumonia, it is important to get up and walk as soon as possible. The nurses will assist you
- Removing Tubes. The exact removal times will depend on how quickly you heal, and where your anastomosis is located. 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.
  - NG tube is removed 2- 7 days after surgery
  - neck drain is removed 2- 4 days after surgery
  - chest tube is removed 5-7 days after surgery
- Discharge: If your recovery is proceeding normally, we expect you to be discharged 7-9 days after the surgery.
- Solid Foods: You may not start eating solid foods until after your first postoperative visit. This avoids putting strain on the anastomosis. (It may take you some time to develop a successful eating pattern since your stomach can no longer work as well in preparing the food you eat.)

## What to Expect When you are Discharged

- We will give you pain medication to take at home. Many pain medications can cause constipation, and you may need to take a stool softener and laxatives. Tell your doctor if constipation is a problem for you.
- You will be eating when you go home. Typically, you will be on a full liquid diet (pudding, ice cream, yogurt, etc.) when you go home. Your diet will be switched to soft solid food after your postoperative visit (2-3 weeks).
- 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 at your postoperative visit.
- You may shower, unless otherwise directed. Keep your incisions clean and dry.
- 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 instruct you on how to use the feeding tube and how to modify your diet after the surgery.

## What to Report to your Physician

Call your doctor at **716-845-3167** right away if you have:

- fever of **100.4°F (38°C)** or higher, or fever with chills
- increased shortness of breath
- palpitations or fast heart rate
- chest pain
- severe or persistent diarrhea or vomiting
- increased redness, drainage, or swelling around the incisions or chest tube sites
- pus-like or foul smelling drainage from an incision
- a bubbling or sucking sound from an incision

Clinic hours are Monday to Friday from 8 a.m. to 5 p.m. After hours, please call Roswell Park at **716-845-2300** and our Call Center staff will assist you. If it is determined you need to be seen, you may be asked to come to our Assessment & Treatment Center (ATC), which is open 24/7. You must be referred to the ATC by your doctor or the doctor on call. The ATC is not a walk-in clinic

If your feeding tube falls out, **call the center immediately at 716-845-3167.**

## Questions or Concerns

If you have any questions about your procedure, please call the Thoracic Center at **716-845-3167**. The Center is open Monday – Friday 8 a.m. to 5 p.m.