Baylor Medicine

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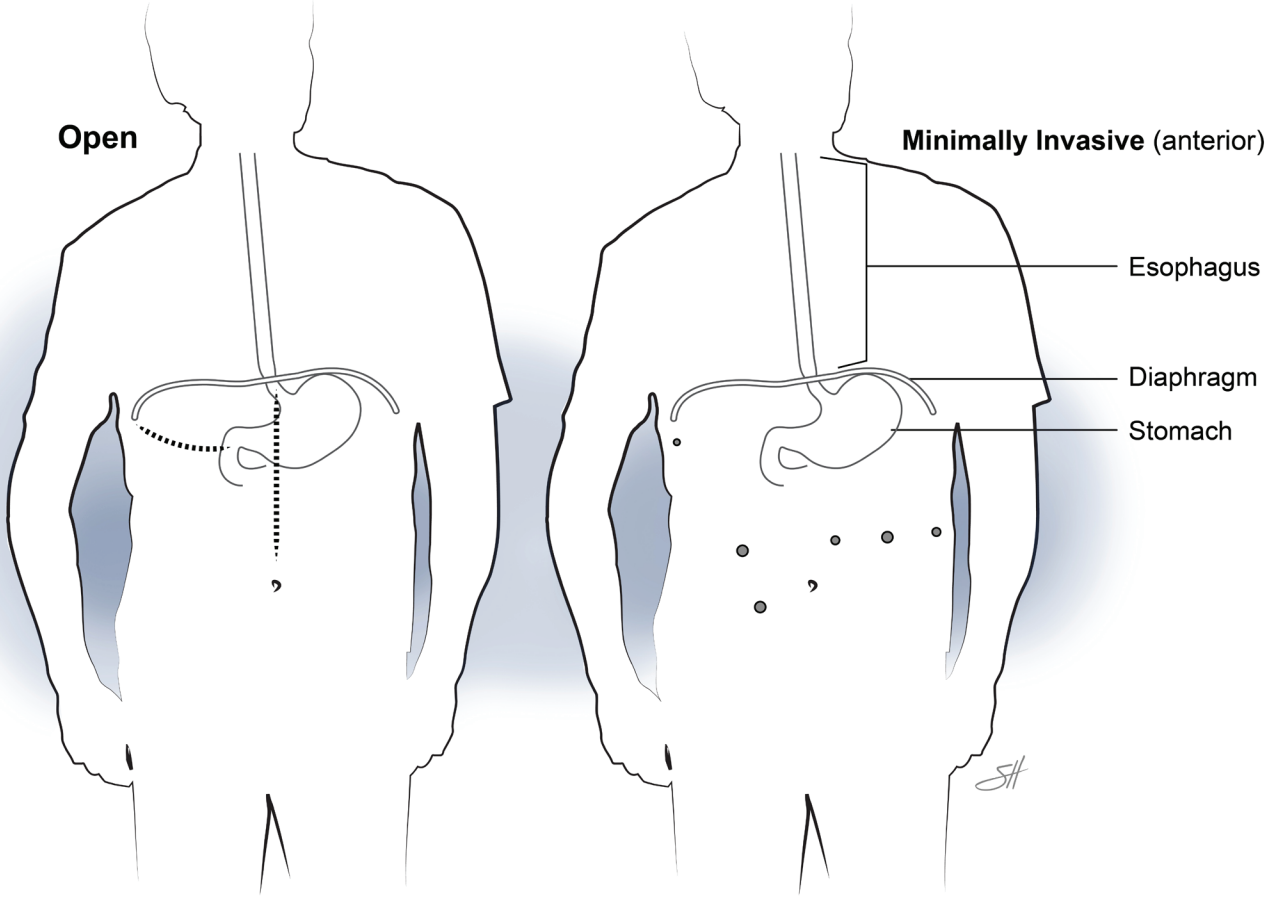
PATIENT EDUCATION

Surgery
Esophagectomy



What is an esophagectomy?

An esophagectomy is a surgical procedure to remove the part of the esophagus and part of the stomach. Usually, the esophagus is replaced by building a new one out of the stomach. Occasionally, the colon or small intestine is used. Even if the problem only involves the lower part of the esophagus, your surgeon will remove at least half of the esophagus due to problems with reflux and swallowing caused when less is removed. Typically, an esophagectomy is performed to remove esophageal cancer. Occasionally, esophagectomy is performed for a benign process such as achalasia or strictures.

Types of Esophagectomy

There are various approaches for performing an esophagectomy. Your surgical team will work with you to select the best operation for your specific tumor location.

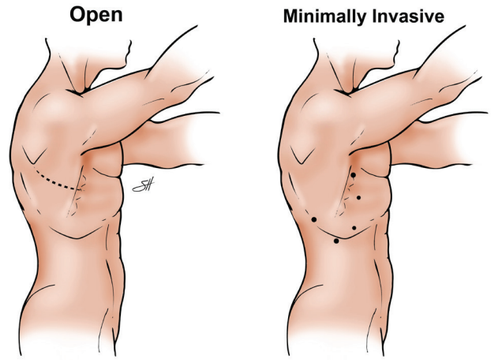
Thoracic surgeons at Baylor Medicine are experts in minimally invasive techniques and, whenever feasible, use a minimally invasive approach. This approach has proven benefits over the traditional esophagectomy (with large incisions) without compromising quality. These benefits include lower complication rates, less pain, faster recovery, and better long-term quality of life.

Minimally Invasive Esophagectomy

A minimally invasive esophagectomy involves no large incisions. Instead, surgery is performed through smaller incisions.

Laparoscopy: long instruments are used through small incisions on the abdomen to perform the portion of the surgery involving the stomach and/or intestines. The abdomen is inflated with carbon dioxide to provide room for the procedure.

Thoracoscopy: long instruments are used through small incisions on the chest to perform the portion of the surgery on the esophagus. No rib spreading is necessary.

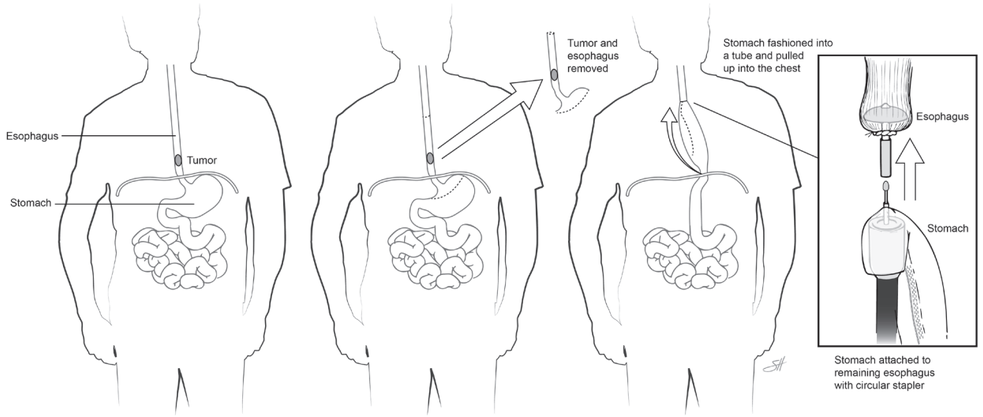


Ivor Lewis versus Three-Hole

The surgeons at Baylor Medicine typically choose from these two methods of esophagectomy:

Ivor Lewis: involves surgery in the abdomen and chest. This approach is often preferred when the problem involves the lower part of the esophagus/top of the stomach.

Three Hole (also known as modified McKeown): involves surgery in the abdomen, chest and left side of neck (three incision sites, or "holes"). This approach allows for a more extensive view and access to the surgical site, enabling precise removal of the affected tissue and reconstruction.



During Surgery

- You will be given anesthesia, so you will be asleep and pain-free.
- Through an IV, you will be receiving fluids and other medicines like antibiotics during the surgery.
- After you are completely asleep, a breathing tube will be put into your windpipe through your mouth to help you breathe.
- You will have a tube placed into your bladder to drain your urine. This will be removed once you are able to get up and move around comfortably after surgery.
- The surgeon will make small incisions in two or three areas including your chest and abdomen.
- Through these incisions, the surgeon cuts out and removes the portion of the esophagus with the problem and any involved lymph nodes.
- Next your surgery team will fashion the stomach into a tube to become the new esophagus. Sometimes this procedure is performed first. They may cut, dilate, or Botox the last portion of the stomach, called the pylorus, to allow food to pass more smoothly.
- If the stomach is not suitable to become the new esophagus, a piece of intestine may be cut out to be used instead.
- Finally, the surgeon will create a new connection between the new "esophagus" (stomach or intestine) and the healthy part of your old esophagus.
- A small drain is placed next to the new connection between the esophagus and the stomach. This helps the surgery team monitor any problems as it heals. Sometimes more than one drain may be used.
- Your surgery team may place a temporary feeding tube (jejunostomy tube) if you don't already have one.
- A chest tube is placed to help your lung re-expand and collect the normal fluid that builds up after chest surgery. Sometimes more than one chest tube may be used.
- A tube is placed down your nose into the new esophagus to relieve any pressure as it heals.
- The incisions are closed with stitches or staples and a dressing.

After Surgery

Recovery – What to Expect

Most patients spend one to three days in the ICU and then another five to seven days on a normal hospital floor. You will have several tubes, catheters and IVs in place when you wake up. These are gradually removed during the hospital stay when your surgical team feels it is safe.

Walking

- It is very important that you are up and walking in the hospital halls immediately after surgery. On the first day after surgery, you will do three laps around the nursing station in the halls in the morning, afternoon and evening. This is the most important thing you can do for your recovery!
- Walking prevents blood clots in your legs, helps prevent lung problems, keeps you from getting weak and wakes up your bowels from surgery. It also boosts your immune system and your mood. Continue walking frequently after you go home.
- Avoid sleeping on your stomach for the first six weeks.

Pain

Your surgery team will use various pain medications to make sure your pain is controlled while in the hospital. These will be used to minimize your pain and decrease inflammation.

Nutrition

After surgery, you will not be allowed to eat for several days while your new esophagus heals. Instead, you will be receiving nutrition through your feeding tube. This will continue for several weeks until you are able to eat enough calories by mouth for proper nutrition and healing.

Esophageal Leak

One possible complication of an esophagectomy is a leak between the old esophagus and the new one. Small leaks will often heal without major surgery. Your surgery team will do a few things to watch for a leak as you heal:

- They will watch the color of your drain(s) closely.
- You will have a special imaging study called an esophagram where you will drink special dye and watch it go down with X-rays to check the connection and make sure the new esophagus is emptying properly. This is typically done five days after surgery. You will not be allowed to eat by mouth at all until after this study.

Deep breathing

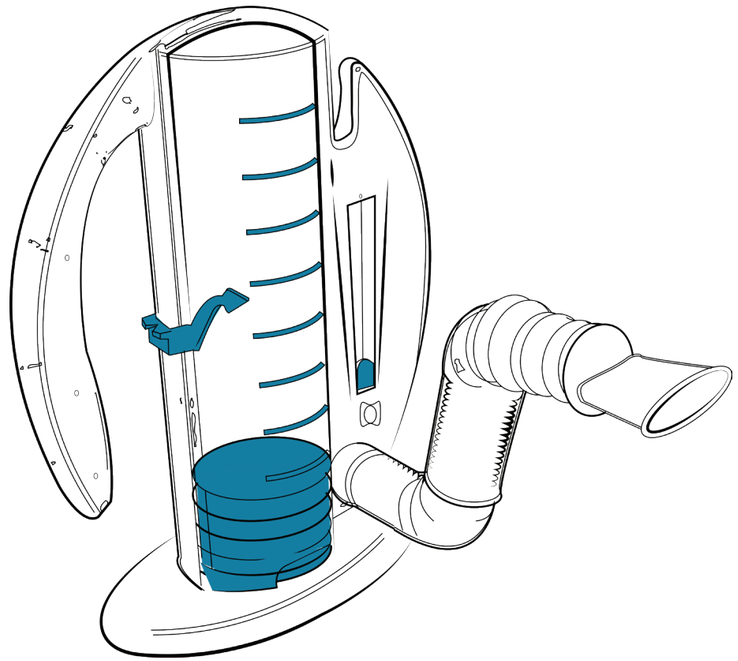
Your lungs may be weak after surgery, so it's important to get them back in shape. To do this, you may be asked to:

- Take deep breaths
- Cough a lot
- Press a pillow against your abdomen as you cough so your incision hurts less

An incentive spirometer will also be given to you to help guide you take deep breaths. This helps expand your lungs after surgery and prevents infection and fluid from building up in your lungs. You will also take this home with you and continue to use it after surgery. This device helps you in a very important part of your recovery.

To use:

1. Put the mouthpiece in your mouth.
2. Breathe in slowly, and as deep as you can.
3. Hold the breath for as long as you can.
4. Let the air out.
5. Do this ten times every hour.



Recovery at Home

Nutrition

When you leave the hospital, you will be on a fully liquid diet for two weeks. You will come back for a follow-up visit around two weeks after surgery. At this point, your team will likely advance you to a soft diet and then eventually to a regular diet. The key to your healing is small frequent meals. When you are able to swallow enough food and calories to maintain your weight, your feeding tube will be removed. This is done in the office and typically painless.

Incision Site Care

- To help prevent an infection, keep your incision clean and dry.
- It is safe to shower and get the incision wet with running water. Pat dry gently.
- Do not soak the incision underwater for the first few weeks.
- Do not go swimming or take baths until your doctor says it's okay.
- Inspect the incision site every day for increased redness, drainage, swelling or separation of the skin.

Drain Care

You may still have your drain when you go home. It is important that you understand how to take care of the drain before going home. You and your care provider (family member or friend) will be instructed about drain care and maintenance.

- It is okay to shower and get soap and water on the drain but do not take a bath or go swimming.
- Measure and record the fluid before emptying. There are markings on the side to help you measure. Empty the fluid and keep the bulb squeezed as you put the cap back on, which keeps the drain on suction. Take the drain output record to your follow-up appointment.
- If you notice a change in the color of the drain fluid, especially green or brown fluid, this is not normal, and you should call your surgical team right away.

Activity

- It is important to stay active. Walk three or four times a day after your return home.
- Do not lift more than 10 pounds for at least six weeks.
- You may drive once you are not taking narcotic pain medications.

Pain

- You will be given a prescription for pain medicine to use at home after the surgery. Take these as needed. If it is in tablet form, be sure to crush the pills well. You may be given a liquid form. You may also be given a prescription for nerve pain (gabapentin) to take three times a day.
- You should wean off the strong pain medications by using over-the-counter pain medications such as acetaminophen (Tylenol) and ibuprofen (Motrin) as soon as you are able. While you are on the liquid diet, you will need to get the liquid (children's) form of these medications. Follow the dosing instructions indicated on the label of these medications.

Long-term precautions

After this surgery, you should do the following to prevent uncomfortable symptoms of reflux:

- Eat small frequent meals
- Take a daily medication that reduces stomach acid (H2 blocker or PPI)
- Avoid eating or drinking within four of going to bed
- Sleep with a gentle incline (use two pillows or elevate the head of the bed)

For non-urgent concerns, MyChart is a great way to get in touch with your surgery team by sending secure messages. You may also attach photos if you have concerns about your incision site. If you do not have Baylor MyChart, call the office and the staff will assist you in setting it up.

If you have an urgent surgical concern after hours, please call the office number. The answering service will connect you with the on-call surgeon.

Call your doctor right away if you have any of the following symptoms:

- Chest pain
- Shortness of breath
- Rapid, irregular heartbeat
- Any unusual bleeding
- Fever of 101degrees F or higher, or chills
- Signs of infection around the incision (redness, drainage, warmth, or pain)
- Incisions that opens up or pulls apart
- Persistent nausea or diarrhea
- Trouble concentrating
- Dizziness or lightheadedness

Call 911, or go to Baylor St. Luke's if you experience the following:

- Chest pain
- Shortness of breath
- Rapid, irregular heartbeat
- Changes in your speech, difficulty concentrating, or weakness on one side of your body.