

ENHANCED RECOVERY AFTER MINIMALLY INVASIVE ESOPHAGECTOMY



**PATIENT
EDUCATION**

Contact Information for Questions and Emergencies

GI Surgery Center: **716-845-4005** Hours: 8:00a.m. – 5:00p.m., Mon – Fri

- If you are having symptoms and need assistance, call the GI Center. After hours, the nurse triage or call center staff will answer your call. You can also reach Roswell Park 24/7 at **716-845-2300** or toll free at **1-800-ROSWELL (1-800-767-9355)**.
- For urgent but non-life threatening symptoms, we may ask you to come to our Assessment & Treatment Center (ATC), open 24/7. You must be referred by your provider or a provider on-call; it is not a walk-in clinic.
- **Emergencies:** If you have a life-threatening emergency, call 911 or go to your nearest hospital. Let the ER staff know the last time you were treated at Roswell Park.
- If you go to the ER or are admitted to the hospital, have someone notify your Roswell physician.

Introduction

This booklet explains the Roswell Park's *Enhanced Recovery After Surgery* (ERAS) program for people having esophageal surgery. The overall goal of this program is to shorten your recovery after surgery by:

- (1) reducing the length of your hospital stay
- (2) avoiding the use of medications (such as opioids) which may delay your recovery
- (3) lowering your risk of complications after surgery

Successful ERAS starts **before** the operation with medications and other therapies aimed at giving you a head-start on your recovery.

Minimally Invasive Esophagectomy

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

Four small incisions are made in your chest wall. Approximately five (5) small incisions are made in your upper abdomen. Often, a small incision is also made in the lower neck. The use of a specialized scope and other instruments allows the surgeon to perform this procedure through small incisions. Sometimes, the 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 postoperative visit.

About ERAS

Preparation: You are about to have a major operation. Before surgery, you play an important role in your health. Good nutrition and physical fitness are important to a smooth and shortened recovery after surgery. Eating a healthy diet of fruits, vegetables, and proteins can help maintain a healthy weight. If you smoke, stop as soon as possible. Roswell Park has programs to help you quit. Daily exercise is a great way to improve your conditioning before an operation. Even a 30 minute walk every other day is valuable.

Night before surgery

- **Do not eat or drink after midnight.**
- **You must shower the night before your surgery. When showering, please follow the instructions on the next page closely.**

- Wash your hair as usual with your regular shampoo. Then rinse your hair and body thoroughly to remove any shampoo residue.
- Wash your face and genital area with regular soap and water only.
- Thoroughly rinse your body with warm water from the neck down.
- Pat yourself dry with a clean towel.
- Do not apply powders, deodorants, lotions, creams, hair products, or make up.
- After your body has dried for 60 minutes, wipe down your entire body, except your face and genital area, with CHG (chlorhexidine gluconate) cloths**, as shown on the CHG (antimicrobial) Bathing Cloths card. The CHG cloths and instruction card will be provided to you by your nurse.
- Allow to air dry.
- Dress in freshly washed clothing.

** Using the antiseptic soap cloths we provide greatly reduces the number of germs on your skin. Do not use if you are allergic to CHG. **If rash, redness, itching, or other symptoms occur, stop using the cloths immediately. If symptoms persist, call your doctor.**

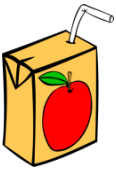



Day of surgery



Several long-acting pain pills are given to you before surgery to help control pain after surgery. These are not opioid (narcotic) medications.




After surgery

- You may have had some or all of the following inserted during your surgery:
 - ✓ A chest tube, which reinflates the lung
 - ✓ A nasogastric or NG tube, which removes excess secretions during the first few days after surgery to allow the anastomosis to heal
 - ✓ A feeding tube, called a jejunostomy or J tube, which allows you to receive supplemental nutrition while you are healing
 - ✓ A Jackson Pratt or JJP drain, which drains fluid from the site of your surgery.
- 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.
- Pain control: It is normal to be sore after surgery, and to have a pain score of 1-3. Our goal is to control your pain using as little opioid medication as possible. Other medications that are used include anti-inflammatory medications, neuropathic medications, and acetaminophen (Tylenol®). Pills you can take by mouth are preferred over intravenous (IV) medications. Spinal or epidural medications may be used in some cases.
- Nausea: Your team will give you medication to help prevent nausea.
- Early ambulation: Sitting up in a chair and walking are important to a quick recovery after surgery and help avoid complications such as pneumonia, blood clots, etc.

Minimally Invasive Esophagectomy - ERAS Care Plan

	Before Surgery	Day 1-2 After Surgery	Day 3-4 After Surgery	Day 5 After Surgery Until Discharge
Food and Drink 	Day before Surgery: Follow a clear liquid diet all day. Nothing to eat or drink after midnight	<ul style="list-style-type: none"> You will have a NG tube Tube feeds through your J Tube will start on Day 2 	<ul style="list-style-type: none"> If healing is not a problem you will start clear liquids* on Day 4 Your tube feeds will slowly be increased 	<ul style="list-style-type: none"> A dietician will give you instructions on how to modify your diet after surgery Your tube feeds will provide half your required daily calories When ready, you will advance to a full liquid** diet and stay on it for 2-3 weeks while your anastomosis heals
Comfort  Your pain goal:		<ul style="list-style-type: none"> Scheduled pain medication given in your IV to prevent and reduce pain If needed, additional medication can be given in your IV 	<ul style="list-style-type: none"> Pain medication given through your J tube lasts longer than IV medications If needed, Additional medication can be given through the J tube 	<ul style="list-style-type: none"> Continue pain medication through your J Tube
		Tell your nurse if your pain is increasing or the medicine is not working		
Breathing 	<ul style="list-style-type: none"> Use incentive spirometer to practice your breathing exercises at home Stop smoking 	<ul style="list-style-type: none"> Take deep breaths and cough often - splinting may make more comfortable. To splint, hold a pillow over your incision Coughing and deep breathing prevent breathing/lung problems You will have breathing nebulizer treatments until Day 5 Use your spirometer every hour when you are awake The night of your surgery, we may give you extra oxygen by placing a lightweight tube under your nose (nasal cannula). We will check the monitor and when the oxygen level in your blood is OK, we will remove the cannula 		

	Before Surgery	Day 1-2 After Surgery	Day 3-4 After Surgery	Day 5 After Surgery Until Discharge
Activity 	<ul style="list-style-type: none"> Stay active by walking 30 minutes every other day, if you can 	<ul style="list-style-type: none"> Your nurse will help you stand up and sit in a chair The sooner you are up and moving, the faster your recovery On the first day after surgery, Your nurse will help you to walk in the halls at least 3 times <ul style="list-style-type: none"> Walk 1 ___ Walk 2 ___ Walk 3 ___ You may meet with a physical therapist to help regain your strength 	<ul style="list-style-type: none"> Your nurse will help you to walk in the halls at least 4 times <ul style="list-style-type: none"> Walk 1 ___ Walk 2 ___ Walk 3 ___ Walk 4 ___ Spend most of the day out of bed and moving You may meet with a physical therapist to help regain your strength 	<ul style="list-style-type: none"> Walking will increase each day. We will assist you, if needed <ul style="list-style-type: none"> Walk 1 ___ Walk 2 ___ Walk 3 ___ Walk 4 ___ Walk 5 ___ <p style="text-align: right;">27 laps = 1 mile!</p> You may take a shower You may meet with a physical therapist to help regain you strength
Bladder/ Bowel 	<ul style="list-style-type: none"> During surgery, a catheter (a small flexible tube) is placed in your bladder to drain your urine 	<ul style="list-style-type: none"> The catheter is typically removed on Day 2 after surgery Your nurses will help you to the bathroom if you need to have a bowel movement 	<ul style="list-style-type: none"> Let your nurse or doctor know if you are passing gas 	<ul style="list-style-type: none"> Let your nurse or doctor know if you are passing gas or have loose stools

	Before Surgery	Day 1-2 After Surgery	Day 3-4 After Surgery	Day 5 After Surgery Until Discharge
Tubes and Drains			<ul style="list-style-type: none"> • NG tube typically removed on Day 3 	<ul style="list-style-type: none"> • Chest tube typically removed on Day 5
Tests, Labs and Procedures 		<ul style="list-style-type: none"> • While in bed, you will wear sequential compression devices (SCDs). These sleeves wrap around and gently squeeze your legs to help prevent blood clots • We will give you an injection of a mild blood thinner to help prevent blood clots • You may need blood tests to check on your status • You will receive fluids and medications through your IV 		
Education 		<ul style="list-style-type: none"> • Continue breathing and leg exercises • Safety and fall prevention • Good nutrition is important to recovery. A registered dietitian (RD) will give you instructions on how to modify your diet after surgery • We will teach you and/or your caregiver how to care for your J tube at home 		
Plans for Leaving the Hospital (Discharge) 	Plan for a 6 to 7 day hospital stay		<ul style="list-style-type: none"> • You and your nurse should start talking about discharge plans • Tell your nurse who will be your caregiver/support person when you get home • If no caregiver is available, your nurse may call a case management nurse or a social worker on staff to help make arrangements after discharge 	<ul style="list-style-type: none"> • A discharge planner will discuss discharge plans – transportation, nursing or physical therapy services in the home, presence of a caregiver, etc. • Your nurse or pharmacist will discuss your at-home medications • Are you ready for discharge? <ul style="list-style-type: none"> ✓ Pain is under control with oral medication only ✓ You are eating soft foods ✓ You are walking (with or without help) ✓ You understand how to take care of yourself at home

* Clear Liquid Diet includes...	**Full Liquid Diet includes...
Liquids you can see through at room temperature	Includes clear liquids plus....
Sports drinks like Gatorade®	Soft drinks such as ginger ale (in moderation/as tolerated)
Strained fruit juice (no pulp)	Vegetable juice (no pulp or seeds)
Water	Pudding, custard
Tea or coffee (sugar is OK but NO milk or creamer)	Milks (coconut, almond, condensed, evaporated); cream; half-n-half
Clear soup/broth (no added meats, noodles, or vegetables)	Strained/ blenderized cream soups
Hard candy	Ice cream or frozen yogurt (no fruit, nuts, seeds)
Jell-O®/gelatin (no pieces of fruit or toppings)	Nutritional supplements such as Carnation Instant Breakfast®, Ensure®, and Boost®
Popsicles or lemon ice (no sherbets, sorbets, or fruit bars)	Sherbet/sorbet/fruit ice (no pieces of fruit)

What to Expect at Home

- 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 must stay on the “Full Liquid” diet. At your first office follow-up visit, your diet will be switched to solid food. A dietician will give you instructions on how to modify your diet after the surgery.
- You will be sent home on supplemental tube feeds through your J tube. You will be on these feeds at least until your first office visit, in order to ensure you get enough calories while you are healing. You will be instructed on how to use the feeding tube.
- You may develop diarrhea 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.

Notes



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www.RoswellPark.org
1-800-ROSWELL (1-800-767-9355)