



PATIENT INFORMATION

Hiatus Hernia Surgery

*Please bring this book to the hospital
on the day of your surgery.*

THE OTTAWA HOSPITAL

Disclaimer

This is general information developed by The Ottawa Hospital. It is not intended to replace the advice of a qualified health-care provider. Please consult your health-care provider who will be able to determine the appropriateness of the information for your specific situation.

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Introduction

You are being admitted to The Ottawa Hospital for Hiatus Hernia Repair Surgery. This book will tell you how to prepare for surgery, your hospital stay and care at home after surgery.

Please read and bring this book to the hospital. The Health-Care Team members will refer to this book during your hospital stay.



Health-Care Team

The following members of the health-care team will help you during your hospital stay.

Thoracic Surgeon

The thoracic surgeon and team of surgical residents will discuss your care and answer any questions you might have. The thoracic surgeon will be in charge of your care.

Clinical Manager

The clinical manager provides leadership, direction and supervision to ensure the clinical unit is running effectively and efficiently.

Clinical Care Leader

The clinical care leader assists the manager to ensure the clinical unit is running effectively and efficiently.

Nurse Educator

The nurse educator is responsible for designing, implementing, evaluating and revising academic and continuing education for nurses.

Nurse

The nurse will be responsible for the management of your care; through on-going assessment, and by ensuring that your learning and teaching needs have been met.

Patient Care Assistant

The patient care assistant (PCA) will work with the team to help with your care, for example, by providing baths, getting you out of bed, and assisting you to the toilet.

Physiotherapist

The physiotherapist will help you regain your functional ability after your surgery **as needed**. This can include improving your lung hygiene, regaining your mobility and building your endurance. You may also work with the physiotherapy or rehab assistant.

Occupational Therapist

The occupational therapist (OT) will help you to become more independent with the activities of daily living **as needed** and determine if you need special equipment or strategies that will help you when you go home.

Social Work

The social worker will meet with you and your family for discharge planning services, counseling, and community information **as needed**.

Dietitian

The dietitian will help you after surgery by reviewing your nutritional needs and teaching you about nutritional management after hiatus hernia surgery.

Home Care

The home care nurse will meet you a few days before you leave the hospital to make plans for nursing care at home **as needed**.

6th Floor Observation Unit (Room 6330)

The 6th Floor Observation Unit is a monitoring area located on the thoracic unit. The Observation Unit team includes doctors, nurses, physiotherapists, respiratory therapists, social worker, dietitian and occupational therapists. **You may not need to be admitted to this unit.**

6 North-West Thoracic Unit

The Thoracic Unit Team includes doctors, nurses, physiotherapists, respiratory therapists, social worker, dietician and occupational therapists.

Things to remember:

- **Your** information is personal and confidential and family cannot be given information over the telephone
- Leave all valuables at home
- There is a visitor's/patient lounge on the 6 North West Unit
- You will be given information about our units upon your arrival.

Clinical Pathway – Minimally Invasive Surgery for Hiatus Hernia				
	Day of Admission / Surgery Post-Op	Post-Op Day 1	Post-Op Day 2	Discharge Day Day 3
Tests		<ul style="list-style-type: none"> Blood work (if ordered) 		
Consults			<ul style="list-style-type: none"> Dietitian 	
Treatments	<ul style="list-style-type: none"> Wound dressing Intravenous (IV) Sequential Compression Device Urinary catheter Gastrostomy tube (G-tube) Nasogastric tube (NG) 	<ul style="list-style-type: none"> Wound dressing Intravenous (IV) Sequential Compression Device Urinary catheter out Gastrostomy tube (G-tube) Nasogastric tube (NG) 	<ul style="list-style-type: none"> Wound dressing Gastrostomy tube (G-tube) Nasogastric tube (NG) 	<ul style="list-style-type: none"> Wound dressing Gastrostomy tube (G-tube) Nasogastric tube (NG)
Medications	<ul style="list-style-type: none"> Pain medication by IV or by injection 	<ul style="list-style-type: none"> Patient specific medications Pain medication 	<ul style="list-style-type: none"> Patient specific medications Pain medication 	<ul style="list-style-type: none"> Patient specific medications Pain medication
Activity	<ul style="list-style-type: none"> Bedrest Head of bed up Foot and ankle exercise 	<ul style="list-style-type: none"> Activity as tolerated 	<ul style="list-style-type: none"> Activity as tolerated 	<ul style="list-style-type: none"> Activity as tolerated
Nutrition	<ul style="list-style-type: none"> Diet as ordered 	<ul style="list-style-type: none"> Diet as ordered For Myotomy-Hypaque test 	<ul style="list-style-type: none"> Diet as ordered 	<ul style="list-style-type: none"> Diet as tolerated For Anti-Reflux-Barium Swallow test
Patient and Family Teaching/Discharge Planning	Patient Teaching: <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> deep breathing and coughing exercises foot and ankle exercise pain control goals Discharge to 6th Floor Observation Unit when criteria met 	Patient Teaching: <ul style="list-style-type: none"> Patient has Hiatus Hernia Surgery education booklet Reinforce: <ul style="list-style-type: none"> deep breathing and coughing exercises foot and ankle exercise diet activity pain control goals Discharge Planning: <ul style="list-style-type: none"> Review discharge issues/discharge plan with patient/family 	Patient Teaching: <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> pain control goals diet activity Review Discharge Teaching Instructions as per education booklet Discharge Planning: <ul style="list-style-type: none"> Review discharge issues/discharge plan with patient/family Confirm 10 a.m. discharge Confirm Hiatus Hernia Surgery education booklet 	Patient Teaching: <ul style="list-style-type: none"> Review Discharge Teaching Instructions as per education booklet Discharge Planning: <ul style="list-style-type: none"> Prescriptions provided Follow-up appointment provided Discharge home at 10 a.m.

Clinical Pathway – Open Surgery for Hiatus Hernia			
	Day of Admission / Surgery Post-Op	Post-Op Day 1	Post-Op Day 2
Tests		<ul style="list-style-type: none"> Blood work (if ordered) 	
Consults		<ul style="list-style-type: none"> Physiotherapy 	
Treatments	<ul style="list-style-type: none"> Intravenous (IV) Sequential Compression Device Urinary catheter Nasogastric tube (NG)/ Gastrostomy tube (G-tube) Arterial line 	<ul style="list-style-type: none"> Wound dressing Intravenous (IV) Sequential Compression Device Urinary catheter Nasogastric tube (NG)/ Gastrostomy tube (G-tube) 	<ul style="list-style-type: none"> Wound dressing Foley catheter Sequential Compression Device Nasogastric tube (NG)/ Gastrostomy tube (G-tube)
Medications	<ul style="list-style-type: none"> Pain medication by IV or Epidural or injection Oxygen 	<ul style="list-style-type: none"> Patient specific medications Pain medication 	<ul style="list-style-type: none"> Patient specific medications Pain medication
Activity	<ul style="list-style-type: none"> Bedrest Head of bed up Foot and ankle exercise 	<ul style="list-style-type: none"> Head of bed up Up in chair 1 hour × 2 minimum Activity as tolerated 	<ul style="list-style-type: none"> Activity as tolerated Head of bed up Up in chair more than 1 hour × 3 Ambulate in hall with assistance Post-op day 1 – 2 exercises
Nutrition	<ul style="list-style-type: none"> Nothing by mouth 	<ul style="list-style-type: none"> Nothing by mouth 	<ul style="list-style-type: none"> Nothing by mouth
Patient and Family Teaching/ Discharge Planning	Patient Teaching: <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> smoking cessation deep breathing and coughing exercises foot and ankle exercise pain control goals positioning diet Discharge to 6th Floor Observation Unit when criteria met 	Patient Teaching: <ul style="list-style-type: none"> Patient has Hiatus Hernia Surgery education booklet Reinforce: <ul style="list-style-type: none"> smoking cessation deep breathing and coughing exercises foot and ankle exercise pain control goals positioning diet Discharge Planning: <ul style="list-style-type: none"> Review discharge issues/ discharge plan with patient/ family 	Patient Teaching: <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> smoking cessation deep breathing and coughing exercises exercise and assistance with ambulation pain control goals diet: Blue dye test and or Hypaque test Review Discharge Teaching Instructions as per education booklet Discharge Planning: <ul style="list-style-type: none"> Review discharge issues/ discharge plan with patient/ family

Clinical Pathway – Open Surgery for Hiatus Hernia			
	Post-Op Day 3	Post-Op Day 4	Post-Op Day 5
Consults	<ul style="list-style-type: none"> Dietitian 		
Treatments	<ul style="list-style-type: none"> Wound dressing Urinary catheter discontinued post removal of epidural Sequential Compression Device NG tube removal Gastrostomy tube (G-tube) 	<ul style="list-style-type: none"> Wound dressing Sequential Compression Device 	<ul style="list-style-type: none"> Wound dressing
Medications	<ul style="list-style-type: none"> Patient specific medications Pain medication 	<ul style="list-style-type: none"> Patient specific medications Pain medication 	<ul style="list-style-type: none"> Patient specific medications Pain medication
Activity	<ul style="list-style-type: none"> Activity as tolerated Head of bed up Up in chair more than 4 times per day Progressive independent ambulation 	<ul style="list-style-type: none"> Activity as tolerated Head of bed up Up in chair more than 4 times per day Independent ambulation 	<ul style="list-style-type: none"> Activity as tolerated Head of bed up
Nutrition	<ul style="list-style-type: none"> Diet as ordered Blue dye test and/or Hypaque test 	<ul style="list-style-type: none"> Diet as ordered Blue dye test and/or Hypaque test (if not done post-op day 3) 	<ul style="list-style-type: none"> Diet as ordered Dietitian to reinforce diet
Patient and Family Teaching/ Discharge Planning	<p>Patient Teaching:</p> <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> deep breathing and coughing exercises exercise and assistance with ambulation pain control goals diet Review Discharge Teaching Instructions as per education booklet: <ul style="list-style-type: none"> G-tube flush Additional teaching booklets as required <p>Discharge Planning:</p> <ul style="list-style-type: none"> Review discharge issues/ discharge plan with patient/ family 	<p>Patient Teaching:</p> <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> deep breathing and coughing exercises independent ambulation pain control goals Review Discharge Teaching Instructions as per education booklet: <ul style="list-style-type: none"> G-tube flush Additional teaching booklets as required Meet with dietitian: <ul style="list-style-type: none"> review diet for post hiatus hernia repair <p>Discharge Planning:</p> <ul style="list-style-type: none"> Review discharge issues/ discharge plan with patient/ family 	<p>Patient Teaching:</p> <ul style="list-style-type: none"> Reinforce: <ul style="list-style-type: none"> deep breathing and coughing exercises independent ambulation pain control goals Review Discharge Teaching Instructions as per education booklet: <ul style="list-style-type: none"> G-tube flush Additional teaching booklets as required <p>Discharge Planning:</p> <ul style="list-style-type: none"> Review discharge issues/ discharge plan with patient/ family Confirm 10 a.m. discharge Confirm Hiatus Hernia education booklet

Clinical Pathway – Open Surgery for Hiatus Hernia	
	Discharge Day – Day 6
Treatments	<ul style="list-style-type: none"> • Wound dressing
Medications	<ul style="list-style-type: none"> • Patient specific medications • Pain medication
Activity	<ul style="list-style-type: none"> • Activity as tolerated
Nutrition	<ul style="list-style-type: none"> • Diet as ordered
Patient and Family Teaching/Discharge Planning	<p>Patient Teaching:</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions as per education booklet: <ul style="list-style-type: none"> – G-tube flush • Additional teaching booklets as required <p>Discharge Planning:</p> <ul style="list-style-type: none"> • Review discharge issues/discharge plan with patient/family • Prescription(s) provided • Follow-up appointment(s) provided • Discharge home by 10 a.m.



Preparing For Surgery

Helpful points before coming to hospital

- **Stop Smoking!** Tobacco in any form should be avoided. This includes pipes, cigars, cigarettes, and chewing tobacco. Tobacco smoke has many harmful substances that damage cells. Smoking places you at risk for lung complications after surgery. Cilia (lining of the airway) help expel secretions. Long term exposure to tobacco smoke destroys cilia and, as a result, you may have more difficulty clearing secretions after surgery.

It is never too late to stop smoking. Smoking cessation programs can help you stop smoking. Ask for help today.

Heart Health Education Center: 613-761-4753

- This six month program involves behavioural therapy; addictive disorders therapy; pharmacologic therapy (nicotine patch or gum); and relapse prevention.
- Covered by the Ontario Health Card or the Régie d'assurance maladie du Québec
- Offered in English and in French

The Public Health Information Line at 613-724-4179

- Multilingual
- Make plans for help in the home (after surgery), before coming into hospital.
- Look at your Clinical Pathway so you and your family know what to expect on a daily basis.



The Pre-Admission Unit Visit

Before you are admitted for surgery you will have an appointment at the Pre-Admission Unit (PAU). Please bring all of your regular medications, including your over the counter medication and herbal remedies to this appointment.

- We will ask you questions and tell you about leg exercises, deep breathing and coughing exercises, pain control and skin preparation. It is helpful if you practice deep breathing and coughing exercises before your surgery (See pages 13 to 18).
- Walking at a moderate pace twice a day for 30 to 40 minutes will improve your conditioning before your surgery.



Morning of Your Surgery (Pre-Op)

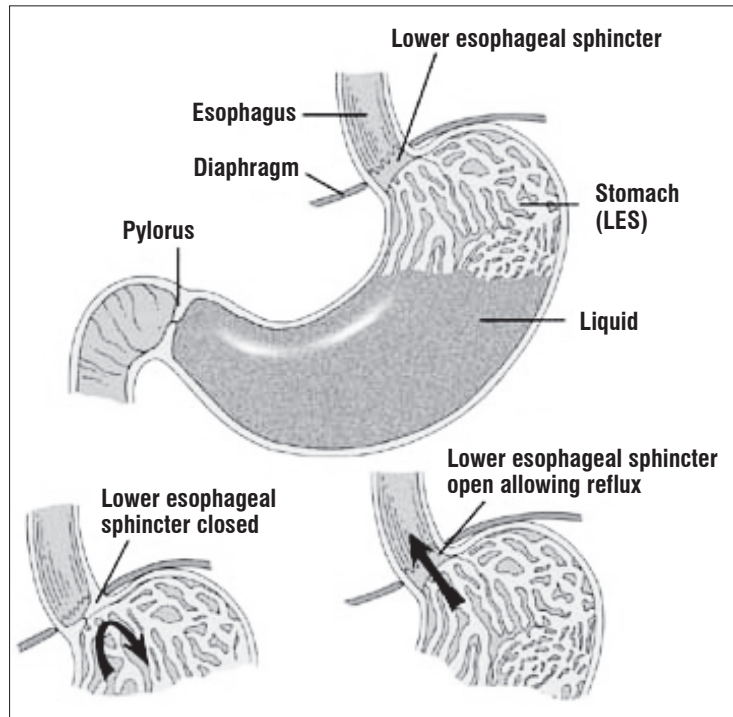
Please follow the pre-op instructions provided by the nurse during your PAU visit.

- If you have been told to take some of your usual medications (such as your blood pressure pills or heart pills) on the morning of surgery, you may take them with a sip of water.
- Bring in your personal care items such as a toothbrush, comb, and shampoo.
- Bring telephone numbers of your spouse/relative who will be helping you, so they can be contacted if needed. Include the home, cell and work numbers.



GERD: A Common Problem

Occurrences of heartburn (harsh, burning sensation in the area in between your ribs or just below your neck) and sour tasting fluid in your throat are classic symptoms of a common health problem called **gastroesophageal reflux disease, or GERD** (also known as **reflux disease**). The heartburn caused by GERD may occur after you eat a large meal or when you bend over or lie down. Without treatment, GERD can lead to serious problems, even cancer. GERD can sometimes be controlled with simple lifestyle changes and medication. If your symptoms persist, surgery may offer more lasting relief from GERD.



What Causes GERD?

GERD is caused by acid that escapes from your stomach through a weakened one-way valve near the top of your stomach (LES). The acid can travel backward as far as your throat. Eating certain foods and taking certain medications can add to the problem. Smoking, caffeine and alcohol all lower the pressure of the LES and therefore increases the level of acid in your stomach and can make your symptoms worse.

What are Symptoms of GERD?

The symptoms of GERD may include:

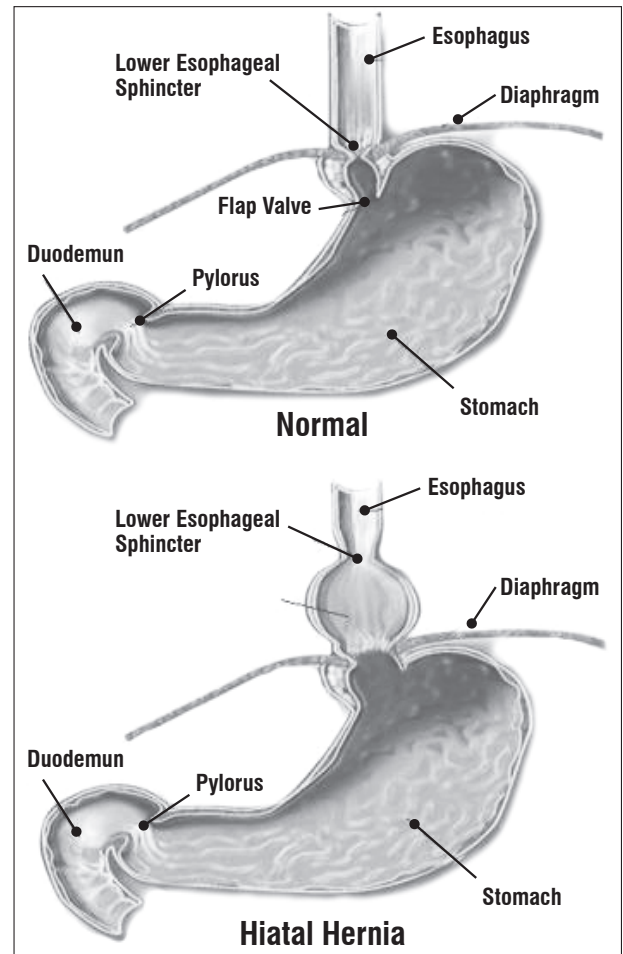
- A burning feeling in the chest (heartburn)
- A bitter or sour taste in the back of the mouth
- Regurgitation
- Belching
- Pain in the upper abdomen
- Worsening of the above symptoms when bending over or lying down
- Chronic cough and hoarseness

Lifestyle Changes

Raising the head of the bed or avoiding food close to bedtime can ease the discomfort of GERD for many people. Losing excess weight can also help. Some over-the-counter antacids may offer relief. If symptoms continue, your doctor may prescribe medications that reduce acid or speed up digestion.

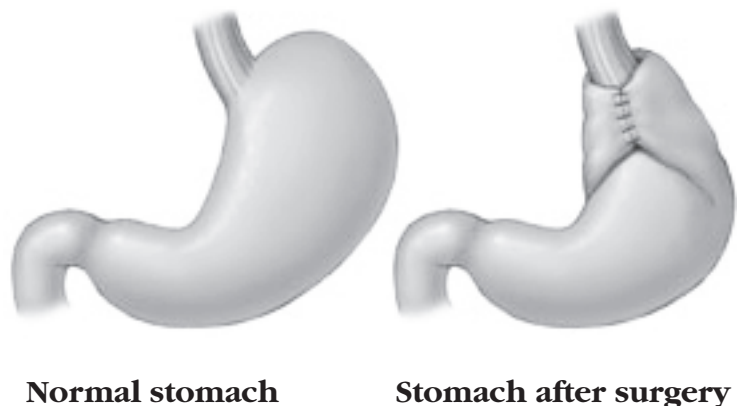
Surgery

If other attempts to control your GERD don't offer relief, you may be a candidate for **laparoscopic surgery**. This surgery is done using a **laparoscope**, a small telescope attached to a camera. The laparoscope allows the doctor to see clearly into your abdomen. During surgery, the doctor re-creates the one-way valve where the **esophagus** (the tube that food travels through) meets the stomach. Any other necessary repairs can be done at this time.



Minimally Invasive Surgery for Hiatus Hernia

During this procedure, the doctor wraps the very top of the stomach around the lower part of the esophagus. The surgery is performed through several small incisions. As a result, there is usually less pain, a faster recovery time, a hospital stay of two to four days and a low risk of infection.



Your abdomen will be inflated with carbon dioxide (CO₂) gas to provide more space for your doctor to see and work. The laparoscope, which has a camera attached, is then inserted through an incision to send images to a video screen. Small surgical instruments may be inserted through other incisions. The CO₂ gas is removed at the end of the surgery.

The surgery is performed under a general anesthetic; therefore you will not be awake. The length of the surgery may take up to four hours.

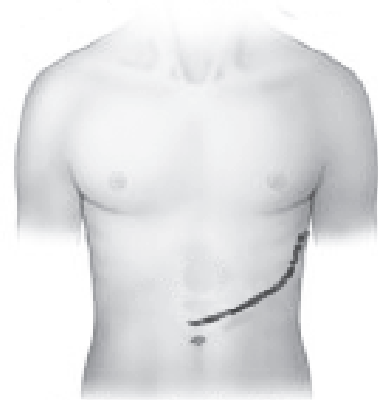


Abdominal incisions



Open Surgery for Hiatus Hernia

If your doctor feels it isn't safe to continue with a laparoscopic procedure once the surgery has started, he or she will complete the operation through a larger incision in your abdomen. This is called an open procedure. This surgery requires a longer recovery time and a hospital stay of about six days. The length of the surgery may take up to four to six hours.



Abdominal incision



After Surgery (Post-Op)

Following surgery, you will awaken in the Post-Anesthetic Care Unit (PACU). You will remain there for four to six hours and then be transferred to the 6th Floor Observation Unit (room 6330) **if needed**. You will be transferred to the 6 North West Thoracic Unit when you no longer require frequent observation and monitoring.

Pain Management

The goal is well-controlled pain at rest and with activity. With good pain control at rest, you will be comfortable enough to sleep. With activity, there may be some increase in pain but the pain should not prevent you from deep breathing and coughing and moving about as well as you like.

If you are having the **Minimally Invasive Surgery**, you may receive pain medication by mouth, IV or by injection.

If you are having the **Open Surgery**, you will have a pump containing medication to help control your pain. The pump will be connected to your intravenous (I.V.) or a small tube placed in your lower back (epidural catheter). The anesthesiologist will decide what type of pain medication and the best method of receiving this medication in order to control your pain. There are two types of medication used:

- **Pain killers (opioids):** This may be given IV or with the epidural catheter. If you receive pain killers only, you will be given a hand held controller. Press the button on the controller as soon as the pain starts, or if you know your pain will worsen when you start walking or doing breathing exercises. Do not permit family or friends to push the handset for you.
- **Freezing (local anesthetics):** This is used only with the epidural catheter. If you receive freezing you will not have a controller. The pump will work by delivering medication continuously through the epidural catheter.

Your pain will be assessed using a scale of 0–10. Zero is no pain and 10 is the worst pain possible. You will be asked to rate your pain level, both while resting and during activity. In addition, you will be asked if the pain prevents you from moving and if you are satisfied with your pain control.

If you have received “freezing”, the nurse will ask you to move your legs and will also test the feeling in your legs and around your epidural catheter. These assessments will help determine how effective your treatment is and whether changes in the pump or medication is needed.

Inform your nurse if you have any of the following:

- itchy skin
- nausea and/or vomiting
- unrelieved pain
- heaviness in your legs
- tingling or numbness
- increased sleepiness

If you are having **open surgery**, after a few days and when you are able to take pain medication by mouth, the pump will be removed.

Intravenous (IV)

You will have an IV to replace your fluids until you are able to drink well. At that time the nurse will change it to a saline lock. A saline lock will be in place until you are discharged. Do not pull on the IV tubing. When walking, push the IV pole using your hand that does not have the IV.

Urinary Catheter

You will have a urinary catheter (tube) to drain urine out of your bladder. This catheter will be removed after a few days. The nurse will clean your catheter site every 8 hours to prevent infection.

Nasogastric Tube (N/G)

After **open surgery**, you will have a tube inserted through your nose and into your stomach. This N/G tube drains fluid from your stomach while you are healing and will be connected to wall suction. The tube is usually removed after a few days.

Gastrostomy Tube (G-tube)

You may have a G-tube inserted into the stomach through a surgical opening.

Wound Care – Minimally Invasive Surgery

You will have small incisions, in your abdomen area. The incisions are usually closed with sutures/staples and protected with light bandages. The bandages are usually removed after a few days.

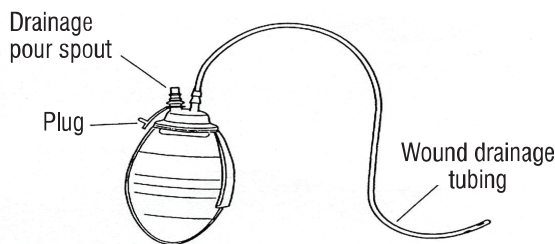
Wound Care – Open Surgery

You will have an incision on your abdomen or your chest that will be closed with sutures/staples. The dressing is usually removed after a few days. Sutures/staples are usually removed after seven to 10 days or at your follow-up appointment.

You will have a dressing at your chest tube site that will be changed every three days and as needed.

Jackson-Pratt Drain (if required for Open Surgery)

The surgeon *may* insert a small drainage tube at the time of surgery. It is used to collect excess discharge that sometimes collects around the area of the anastomosis. It will be in place for a couple of days before being removed by the nurse.



A **Jackson-Pratt** removes fluid that would collect at the incision.

Oxygen

Oxygen is an important part of the air we breathe. Sometimes the body may require extra oxygen. During your hospital stay, you may receive extra oxygen. This is given through a mask placed over your nose and mouth or small tubes placed in your nostrils (nasal cannula).

The amount of oxygen in your blood is tested by placing a small clip on your finger. This is called pulse oximetry. This test is used to check that your body is getting the right amount of oxygen. When you no longer need extra oxygen, it will be removed.

Deep Breathing and Coughing

Deep breathing exercises work best when you are sitting up in a chair or on the side of the bed.

- Take a deep breath in through your nose. Hold for three seconds. Breathe out through your mouth slowly.
- Repeat this exercise 10 times each hour while you are awake and until your activity level increases.

Coughing exercises help to loosen any secretions that may be in your lungs. These can be done after your first five deep breaths.

To produce an effective cough:

- Support your incision with a small pillow or blanket.
- Take a deep breath and cough.

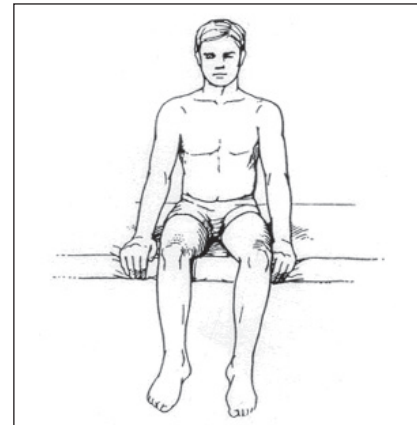
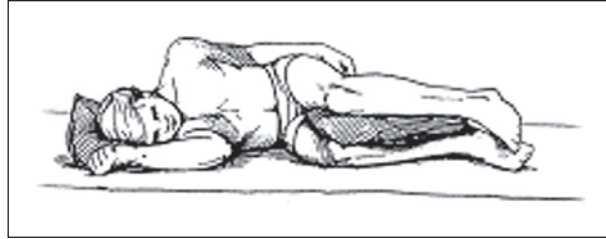
Moving in Bed

While you are in bed, it is important to change positions. Do not worry about the tubes you have in place, however; avoid lying on your incision and chest tube. Move every two hours while awake.

- Support your incision with a small pillow or blanket.
- Bend your knees and roll from your non-operative side to your back.

Getting Out of Bed

- Roll onto your side where there is no incision or chest tube(s).
- Place your upper hand on the bed below your elbow.
- Raise your upper body off the bed by pushing down on the bed with your upper hand and pushing up with your lower elbow.
- Swing your feet and legs over the edge of the bed and bring your body to a sitting position.
- Practice doing this at home.

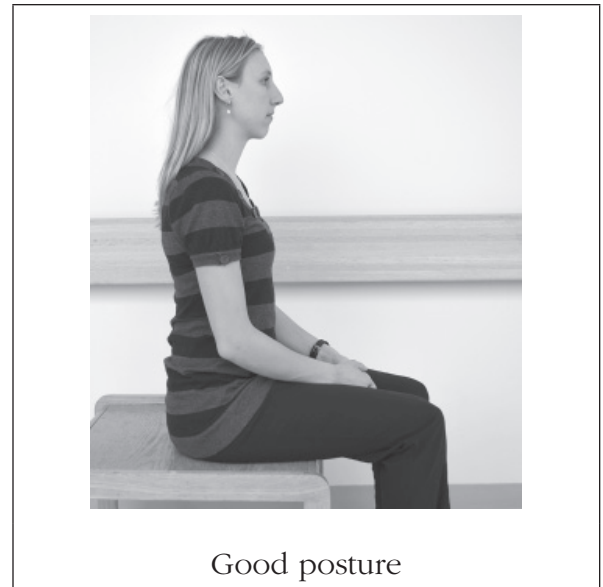
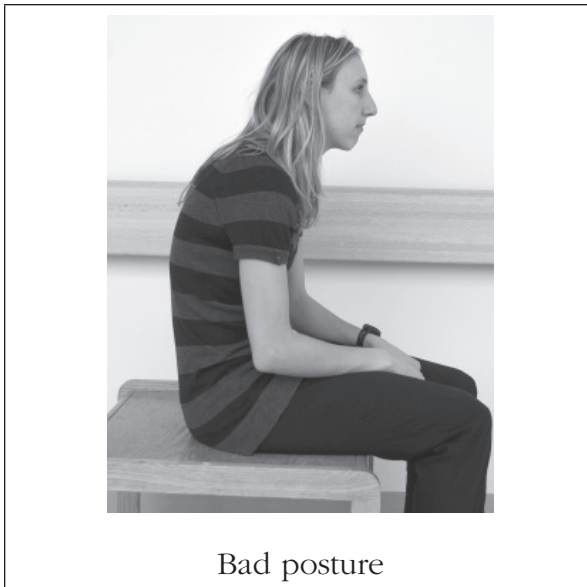


Post-Thoracotomy Exercises – Open Surgery

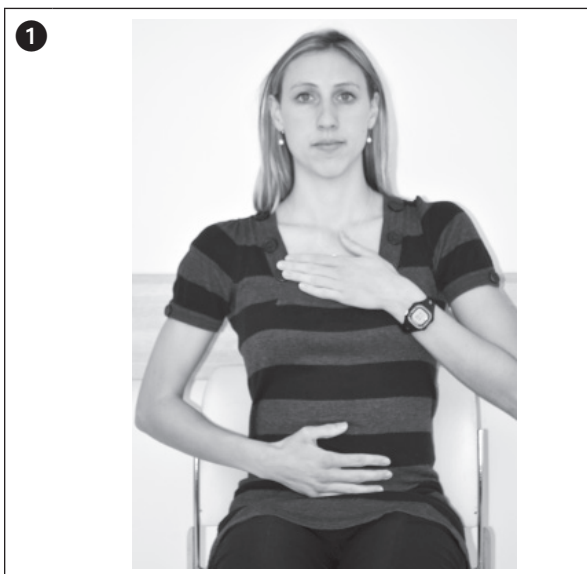
Initially, exercises should be done hourly while awake. Repeat exercises five to 10 times or as advised by your physiotherapist. All exercises should be done slowly and continued once at home for at least two weeks.

The goal of these exercises is to help fill your lungs with air and to clear your lungs of secretions.

Verify your posture regularly in front of a mirror. You may tend to lean towards your operated side and that shoulder may drop down and forward. Try to correct yourself as much as possible:



Deep Breathing Exercises



- Relax your shoulders while sitting with one hand gently on your stomach just below the rib cage.
- Breathe in slowly while trying to inflate your stomach (you should feel it expand). Hold for three seconds and relax. This is diaphragmatic breathing.



- Sit with your hand on the surgical side of your rib cage.
- Breathe in deeply while trying to expand your rib cage sideways against your hand.
- Hold for three seconds and breathe out.

3

- Take a **deep** breath in and hold for three seconds.
- Let the air out slowly through your mouth breathing out **as long as you can**.
- This may help to cough up secretions.

4

- Supported cough: put a folded blanket or pillow on your incision.
- While squeezing blanket or pillow over your incision, take a deep breath and try coughing as hard as you possibly can.

5



- Ankle pumping: move ankles up and down regularly to achieve a pumping effect.

Arm and Shoulder Exercises

6

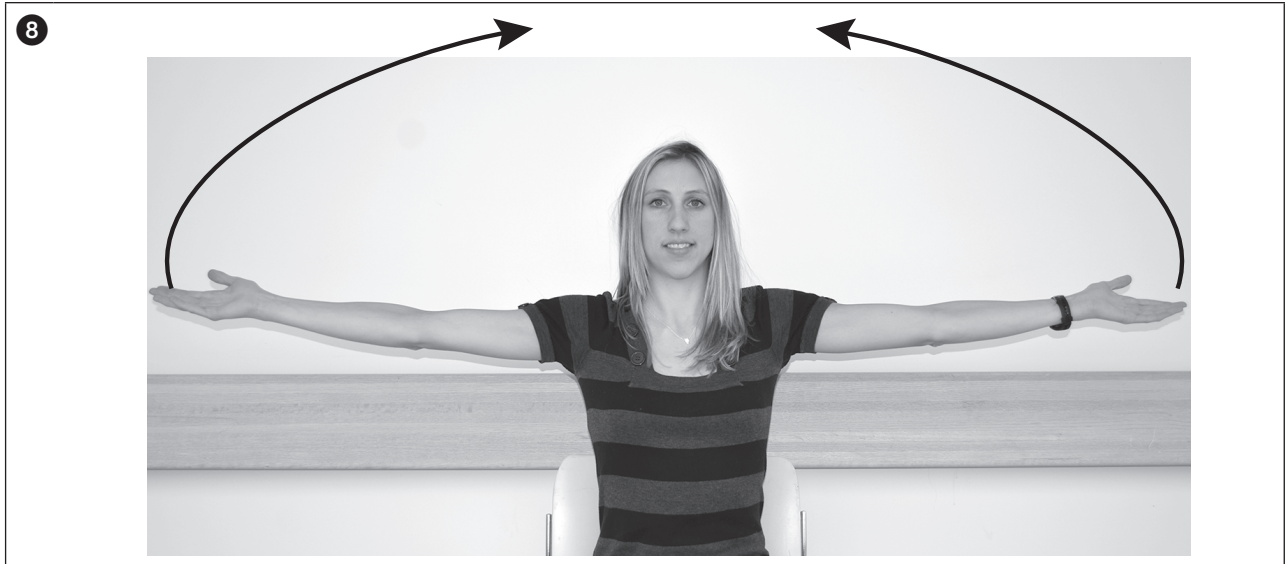


- Sitting, lift arms up in front of you (elbows straight) while breathing in.
- Lower arms while breathing out.

7



- Sitting or standing, roll your shoulders in one direction then repeat in the other direction.



- Sitting, lift arms up sideways (elbows straight and palms facing the ceiling) as high as possible reaching for the ceiling.
- Breathe in while going up and out while coming down.

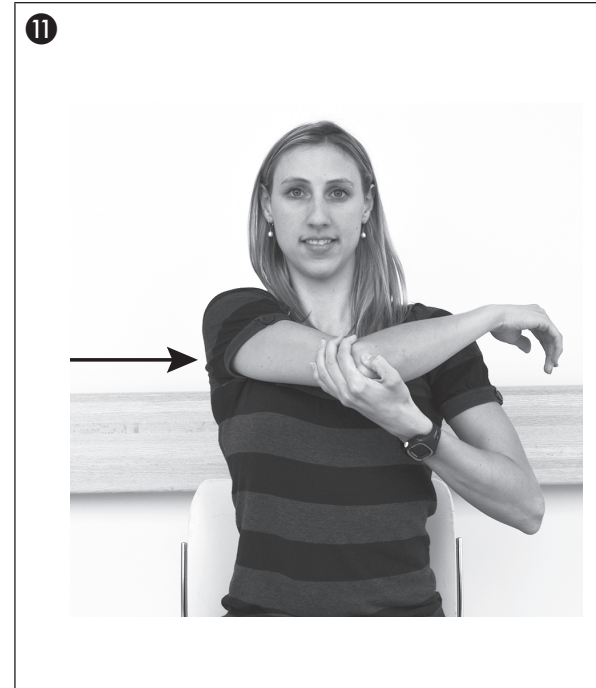
Rib Cage Mobility Exercises



- Sitting or standing, bring one arm up sideways as high as possible while the other arm is reaching towards the floor.
- Try not to lean forwards or backwards for better stretch.
- Hold for five seconds and relax. Repeat with other arm.



- Sitting with crossed arms on your chest, rotate the upper trunk in one direction.
- During the exercise, keep your trunk straight.
- Hold for five seconds and repeat in other direction.



- Sitting or standing, with your hand on the side of surgery, reach to touch your opposite shoulder.
- Use your other hand to pull on the elbow in the direction of movement—hold for five seconds and relax.



- Sitting or standing, lift both arms so that your shoulders and elbows are at 90 degree angles.
- Squeeze your shoulder blades together backwards and hold for five seconds.
- Keeping your elbows at the height of your shoulders, try touching them together forward and hold for five seconds.

Walking

Walking is an important part of your recovery. At first you will need help from your physiotherapist or nurse. Frequent short walks during your hospital stay will help fill your lungs with air and regain your strength. You should continue these walks at home while slowly increasing the distance walked. The goal is to walk 30 minutes twice daily within two to four weeks of being home.

Going Home

- This exercise program should be done slowly and continued at home for at least two weeks.
- Do not lift more than 10 pounds for six weeks.



Discharge Teaching Instructions

When you are discharged from hospital, you may need general help at home. **It is best to make plans before being admitted to hospital for your surgery.** Discuss your discharge plans with your nurse.

Look at your Clinical Pathway as this will give you and your family an idea of what to expect on a daily basis.

Before leaving the hospital, make sure you have:

- Your prescription for your medication.
- Information regarding a follow-up appointment to see your Thoracic Surgeon in about one to two weeks.
- Arranged for someone to pick you up at **10 a.m.** on the day of discharge.

Be sure you understand information related to the following, as well as any additional information not provided in this booklet.

Activity – Open Surgery

- Continue with the shoulder/arm exercises, deep breathing exercises, and walking as discussed with your physiotherapist (if open surgery).
- Stairs are encouraged and a great exercise during your recovery.
- Avoid strenuous exercise including lifting heavy objects, grocery bags, shoveling snow and pushing a lawn mower until after you have seen your doctor at your first follow-up appointment.

- Resume your regular activities gradually over six weeks. Discuss any specific concerns with your doctor.
- Do not drive your car until after you have seen your surgeon at your first follow-up appointment if **open surgery**, and while taking narcotics to manage your pain.
- Take frequent rest periods as necessary. Let your body be your guide.

Wound Care

- Observe the incision for increased redness, tenderness, drainage, and open areas. Notify your doctor if any of these occur.
- Swelling or bruising may appear around the wound. This may continue for several weeks.
- There may be a dressing at the chest tube site when you go home. You can remove the dressing 48 hours after the tube(s) were taken out. There may also be a stitch at the chest tube site. This may be removed by your family doctor/walk-in clinic (48 hours after your chest tube is removed).
- You should let your Steri-Strips fall off on their own, do not pull them off yourself. **Steri-Strips may remain for a maximum of 14 days.**
- Shower or tub bath as you prefer. Avoid hot tubs, jacuzzis and saunas. Soaking in a tub for long periods may delay healing of your incision. Clean your incision with mild soapy water. Pat incision dry.
- Wear loose clothing while your wound is still tender.
- Continue with exercises to prevent scar tissue and prevent chronic pain – **open surgery**.

Medication

- Take pain medication as you need to, for example, before going to bed, prior to activities. You should expect pain for a length of time after discharge.
- If you are permitted, add fiber to your diet to avoid constipation from the pain medication, e.g. bran, whole grains, fruit. A laxative or stool softener may be necessary until your bowels are regular.

Nutritional Management After Hiatus Hernia Surgery

This diet is designed to ensure good healing, to ease swallowing and to prevent bloating and discomfort.

Your surgeon has requested that you:

- ☐ Follow a **full fluid** diet (page 21) for _____ then progress to the **soft diet** (pages 21 to 23) and follow this diet for six to eight weeks.
- ☐ Follow the **soft diet** (pages 21 to 23) for six to eight weeks.

Full Fluid Diet: General guidelines

1. Eat frequent small meals (five to six per day) – small volumes approximately two cups at a time or less if you feel full.
2. Sit upright and eat/drink slowly. Wait 30 to 45 minutes before lying down.
3. Avoid swallowing air:
 - Eat and drink with your mouth closed.
 - Do not use a straw.
 - Do not chew gum.
4. Do not eat or drink two hours before bedtime.
 - **Beverages:** Water, weak tea, decaffeinated coffee, milk, milkshake, commercial oral supplement (Ensure, Boost, Breakfast Essentials), juice (avoid citrus and tomato).
 - **No soft drink, no mineral water, no sparkling water, no alcohol.**
 - **Soups:** Broth, cream soups (no tomato)
 - **Cereals:** Cream of wheat, oatmeal (thinned with milk)
 - **Desserts:** Jell-O, ice cream, smooth puddings, yogurt (without nuts and seeds)
 - **To add calories:** Add sugar, honey, syrup to your tea, coffee, milk, hot cereals. Oral supplement (e.g. Ensure, Boost, and Breakfast Essentials) could be needed twice a day as mid-morning or mid-afternoon snacks for example.
 - **To add protein:** Add skim milk powder or protein powder supplement (discuss with the dietitian) to soup, milk, and hot cereals.

Soft Diet: General guidelines

1. Follow this diet for eight weeks after your surgery.
2. Follow Canada's Food Guide.
3. Sit upright and eat slowly in a relaxed atmosphere.
4. Take small bites and chew food well. The food should feel like a smooth paste before you swallow.
5. Eat small amounts – five or six small meals a day – small volumes approximately two cups at a time (including liquids) or less if you feel full.
6. Do not eat or drink two hours before bedtime.
7. Sip fluids with solids – do not gulp beverages.
8. Avoid swallowing air:
 - Chew with your mouth closed.
 - Do not use a straw.
 - Avoid carbonated beverages (pops, mineral water).
 - Do not chew gum.
9. Avoid foods that cause discomfort. Avoid orange and tomato juice. Avoid strong spices, very hot or very cold beverages and food.

Food Group	Foods generally well tolerated	Foods which may cause discomfort
<i>Milk and Milk Products</i>	All	None
<i>Breads and Cereals</i>	Cooked cereals, dry cereal softened with milk; pasta; rice; crackers; melba toast; dry crisp toast ; plain cookies	All fresh or “doughy” breads, rolls and bagels, untoasted bread ; all those containing coconut, nuts, seeds or dried fruits; coarse cereals (e.g. All Bran, Shredded Wheat)
<i>Meats/Alternatives</i>	Minced or very tender meat, fish and poultry moistened with gravy, sauce or broth; soft moist casseroles or tender stews; scrambled, soft poached or boiled eggs, omelet and soufflé; all cheeses, cottage cheese, tofu; smooth peanut butter	Stringy meat Steak, pork chop, dry sausage or any other hard meat, fish or poultry Fish with bones Nuts and seeds Crunchy peanut butter Fried food Hot, spicy foods Legumes
<i>Fruits</i>	Soft fresh fruits with skin, seeds and membranes removed ; all canned fruits; apple juice, low acid orange juice, fruit nectars	Hard fruits (apple, pear); stringy raw or cooked fruits (e.g. rhubarb, pineapple, papaya); dry fruits (e.g. raisins, dates)
<i>Vegetables</i>	All soft cooked vegetables except those on opposite list; all vegetable juices	All raw vegetables (e.g. salad, carrot sticks); tough and stringy cooked vegetables; (e.g. asparagus, spinach, greens, celery, Brussels sprouts, cabbage); potato skins, corn
<i>Soups</i>	All cream soups, pasta or rice based soups	All those containing foods not recommended

Food Group	Foods generally well tolerated	Foods which may cause discomfort
<i>Fats</i>	Butter, margarine, oil, mayonnaise	None
<i>Desserts</i>	Puddings custard, yogurt, gelatin desserts, fruit whips, ice cream, sherbet	Cake, pie or pastries; all those containing nuts, seeds, dried fruit, or other foods which may not be tolerated
<i>Miscellaneous Beverages</i>	All except those on opposite list	Any soft drinks or carbonated beverages; any cold drinks; alcohol Do not use a straw
<i>Sweets</i>	All except those on opposite list	All candies and foods containing coconut, nuts or seeds; popcorn

When to Call the Doctor

Call your doctor if you have any of the following:

- Chills or fever (temperature greater than 38.5°C)
- Increased pain, redness, swelling or drainage or open areas in the incision(s).
- Increased abdominal swelling or pain
- Persistent cough
- Difficulty breathing
- Blood in sputum
- Increased trouble swallowing or increased nausea and vomiting.
- Swelling in your leg(s)



Follow-Up

You will see your Thoracic Surgeon in two to three weeks after you leave the hospital. Your appointment will be at the 6th Floor Clinic located at the General Campus, 6th Floor, Room 6310.

You will need to have the chest x-ray before your appointment. Please go to Module X on the 2nd floor 45 minutes before your appointment. The requisition for your chest x-ray will be there. During this visit, your thoracic surgeon will listen to your lungs, check your incision, and review your chest x-ray. Discuss any specific concerns you may have at this time with your surgeon.

If you wish to contact your thoracic surgeon for any post-operative issues or to reschedule your appointment, etc. please call **613-737-8845** for assistance.

The Thoracic Surgeons:

- Dr. S. Gilbert
- Dr. D.E. Maziak
- Dr. A.J.E. Seely
- Dr. F.M. Shamji
- Dr. R.S. Sundaresan
- Dr. P. J. Villeneuve



Resources

The Ottawa Hospital Learning Services

Do you need help finding more information about your disease?
Please email Learning Services at learningservices@toh.on.ca.

Web Resources

The Ottawa Hospital website – Thoracic Surgery section: www.ottawahospital.on.ca
Click on: Health Professionals → Surgery → Thoracic Surgery → Patient Information

The Division of Thoracic Surgery asks for your support in attaining Excellence in Patient Care, Research and Education. The Division of Thoracic Surgery has research accounts. Please consider a donation. All donations are tax receiptable. Your gift is greatly appreciated.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.