



PATIENT INFORMATION

Pulmonary Resection

*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 Pulmonary Resection. 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 **as needed**.

Respiratory Therapist

The Respiratory Therapist will monitor, assess and treat individuals who have difficulty breathing **as needed**.

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 unit located on the thoracic unit. The Observation Unit team includes doctors, nurses, physiotherapist, respiratory therapist, social worker, dietitian and occupational therapist.

6 North West Thoracic Unit

The Thoracic Unit Team also 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 – Thoracotomy / Pneumonectomy		
	Day of Admission / Surgery Post-Op	Post-Op Day 1
Tests	<ul style="list-style-type: none"> • Chest x-ray • Blood work 	<ul style="list-style-type: none"> • Chest x-ray • Blood work
Consults		<ul style="list-style-type: none"> • Physiotherapy
Treatments	<ul style="list-style-type: none"> • Wound dressing • Urinary catheter • Epidural catheter • Intravenous (IV) • Chest tube • Cardiac monitor 	<ul style="list-style-type: none"> • Wound dressing • Urinary catheter • Epidural catheter • Discontinue (IV) solution • Possible removal of chest tube • Weight • Cardiac monitor
Medications	<ul style="list-style-type: none"> • Patient specific medications • Pain medication – IV or Epidural • Oxygen • Anti-coagulant • Bronchodilators 	<ul style="list-style-type: none"> • Patient specific medications • Pain medication – IV or Epidural • Laxative • Anti-coagulant • Oxygen • Bronchodilators
Activity	<ul style="list-style-type: none"> • Head of bed up • Deep breathing and coughing every hour while awake • Bedrest • Foot and ankle exercises 	<ul style="list-style-type: none"> • Head of bed up • Up in chair for 1 hour 2 times per day • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-op Day 1 exercises as per booklet
Nutrition	<ul style="list-style-type: none"> • Sips of clear fluids after surgery 	<ul style="list-style-type: none"> • Full fluid diet, then resume normal diet
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 –foot and ankle exercises –pain control goals –positioning –diet 	Patient teaching <ul style="list-style-type: none"> • Patient has education booklet • Reinforce: <ul style="list-style-type: none"> –deep breathing and coughing –smoking cessation –shoulder range of motion –activity –pain control goals –foot and ankle exercises –diet –exercises as per booklet –positioning –leg exercises • Discuss discharge plans and expected length of stay • Social work if needed

Clinical Pathway – Thoracotomy / Pneumonectomy		
	Post-Op Day 2	Post-Op Day 3
Tests	<ul style="list-style-type: none"> • Chest x-ray 	<ul style="list-style-type: none"> • Chest x-ray
Treatments	<ul style="list-style-type: none"> • Removal of wound dressing • Urinary catheter • Epidural catheter • Keep saline lock until discharge 	<ul style="list-style-type: none"> • Removal of epidural catheter • Removal of dressing and suture over chest tube site • Removal of urinary catheter • Keep saline lock until discharge
Medications	<ul style="list-style-type: none"> • Patient specific medications • Laxative • Pain medication – IV or Epidural • Oxygen as needed • Anti-coagulant • Bronchodilators 	<ul style="list-style-type: none"> • Patient specific medications • Laxative • Oxygen as needed • Pain medication • Bronchodilators
Activity	<ul style="list-style-type: none"> • Head of bed up • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-op Day 2 exercises as per booklet • Walk in hall 2 times with supervision 	<ul style="list-style-type: none"> • Head of bed up • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-op Day 3 exercises as per booklet • Walk in hall independently 3 – 5 times per day
Nutrition	<ul style="list-style-type: none"> • Normal diet 	<ul style="list-style-type: none"> • Normal diet
Patient and Family Teaching/ Discharge Planning	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review: <ul style="list-style-type: none"> –After Surgery (Post-Op) section on page 11 	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions <p>Discharge planning</p> <ul style="list-style-type: none"> • Review discharge issues/plan with patient/family

Clinical Pathway – Thoracotomy / Pneumonectomy		
	Post-Op Day 4	Post-Op Day 5 / Discharge Day
Treatments	<ul style="list-style-type: none"> • Enema if needed • Keep saline lock until discharge 	<ul style="list-style-type: none"> • Enema if needed • Removal of saline lock
Medications	<ul style="list-style-type: none"> • Patient specific medications • Laxative 	<ul style="list-style-type: none"> • Patient specific medications • Laxative
Activity	<ul style="list-style-type: none"> • Head of bed up • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-thoracotomy exercises – full program 2 – 3 times per day • Walk in hall independently more than 5 times 	<ul style="list-style-type: none"> • Head of bed up • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-thoracotomy exercises – full program
Nutrition	<ul style="list-style-type: none"> • Normal diet 	<ul style="list-style-type: none"> • Normal diet
Patient and Family Teaching/ Discharge Planning	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions <p>Discharge planning</p> <ul style="list-style-type: none"> • Confirm 10 a.m. discharge plan with patient/ family • Prescription(s) written • Follow-up appointment(s) made • Received teaching booklets 	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions <p>Discharge planning</p> <ul style="list-style-type: none"> • Prescription(s) provided • Follow-up appointment(s) provided • Discharge home by 10 a.m.

Clinical Pathway – Thoracotomy / Lobectomy		
	Day of Admission / Surgery Post-Op	Post-Op Day 1
Tests	<ul style="list-style-type: none"> • Chest x-ray • Blood work 	<ul style="list-style-type: none"> • Chest x-ray
Consults		<ul style="list-style-type: none"> • Physiotherapy
Treatments	<ul style="list-style-type: none"> • Wound dressing • Urinary catheter • Intravenous (IV) • Chest tube • Cardiac monitor 	<ul style="list-style-type: none"> • Wound dressing • Urinary catheter • Epidural catheter • Discontinue (IV) solution – saline lock until discharge • Chest tube • Cardiac monitor
Medications	<ul style="list-style-type: none"> • Patient specific medications • Pain medication – IV or Epidural • Oxygen • Anti-coagulant • Bronchodilators 	<ul style="list-style-type: none"> • Patient specific medications • Pain medication – IV or Epidural • Laxative • Anti-coagulant • Oxygen • Bronchodilators
Activity	<ul style="list-style-type: none"> • Head of bed up • Deep breathing and coughing every hour while awake • Bedrest • Foot and ankle exercises 	<ul style="list-style-type: none"> • Deep breathing and coughing every hour while awake • Up in chair for 1 hour 2 times per day • Activity as tolerated • Post-op Day 1 exercises as per booklet • Ambulate as tolerated
Nutrition	<ul style="list-style-type: none"> • Sips of clear fluids after surgery 	<ul style="list-style-type: none"> • Full fluid diet, then resume normal diet
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 –foot and ankle exercises –pain control goals –positioning –diet 	Patient teaching <ul style="list-style-type: none"> • Patient has education booklet • Reinforce: <ul style="list-style-type: none"> –deep breathing and coughing –smoking cessation –shoulder range of motion –activity –pain control goals –foot and ankle exercises –diet –exercises as per booklet –positioning –leg exercises • Discuss expected length of stay

Clinical Pathway – Thoracotomy / Lobectomy		
	Post-Op Day 2	Post-Op Day 3
Tests	<ul style="list-style-type: none"> • Chest x-ray 	<ul style="list-style-type: none"> • Chest x-ray
Treatments	<ul style="list-style-type: none"> • Removal of wound dressing • Urinary catheter • Chest tube(s) • Saline lock until discharge 	<ul style="list-style-type: none"> • Removal of epidural catheter • Removal of chest tube • Removal of urinary catheter • Saline lock until discharge
Medications	<ul style="list-style-type: none"> • Patient specific medications • Pain medication – IV or Epidural • Oxygen as needed • Anti-coagulant • Bronchodilators • Laxative 	<ul style="list-style-type: none"> • Patient specific medications • Pain medication • Oxygen as needed • Bronchodilators • Laxative
Activity	<ul style="list-style-type: none"> • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-op Day 2 exercises as per booklet • Walk in hall 2 times per day with supervision 	<ul style="list-style-type: none"> • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-op Day 3 exercises as per booklet • Walk in hall independently 3 – 5 times per day
Nutrition	<ul style="list-style-type: none"> • Normal diet 	<ul style="list-style-type: none"> • Normal diet
Patient and Family Teaching/ Discharge Planning	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review After Surgery (Post-Op) section on page 11 <p>Discharge planning</p> <ul style="list-style-type: none"> • Discuss expected length of stay/discharge plan with patient/family 	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions <p>Discharge planning</p> <ul style="list-style-type: none"> • Review discharge issues/plan with patient/family

Clinical Pathway – Thoracotomy / Lobectomy		
	Post-Op Day 4	Post-Op Day 5 / Discharge Day
Treatments	<ul style="list-style-type: none"> • Saline lock until discharge 	<ul style="list-style-type: none"> • Removal of dressing over chest tube site • Removal of saline lock
Medications	<ul style="list-style-type: none"> • Patient specific medications • Laxative 	<ul style="list-style-type: none"> • Patient specific medications • Laxative
Activity	<ul style="list-style-type: none"> • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-thoracotomy exercises – full program 2 – 3 times per day • Walk in hall independently more than 5 times per day 	<ul style="list-style-type: none"> • Deep breathing and coughing every hour while awake • Activity as tolerated • Post-thoracotomy exercises – full program
Nutrition	<ul style="list-style-type: none"> • Normal diet 	<ul style="list-style-type: none"> • Normal diet
Patient and Family Teaching/ Discharge Planning	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions <p>Discharge planning</p> <ul style="list-style-type: none"> • Confirm 10 a.m. discharge plan with patient/ family • Prescription(s) written • Follow-up appointment(s) made • Received teaching booklets 	<p>Patient teaching</p> <ul style="list-style-type: none"> • Review Discharge Teaching Instructions • Take education booklet home <p>Discharge planning</p> <ul style="list-style-type: none"> • Prescription(s) provided • Follow-up appointment(s) provided • Discharge home by 10 a.m.

Preparing For Surgery

Helpful points before coming to hospital

- Exercising: walking at a brisk pace for 30 to 45 minutes daily starting with the confirmation of your upcoming surgery.
- **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) helps expel secretions. Long term exposure to tobacco smoke destroys cilia 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.

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

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.

A nurse and a doctor will see you.

The nurse will ask about your medical history and what medications you usually take.

- 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 page 16).
- 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.

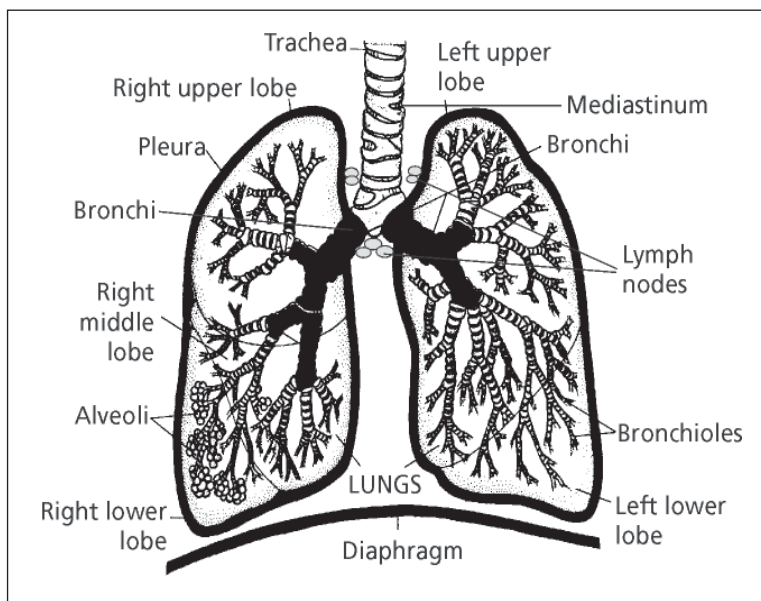
- If you have been told to take some of your usual medications (such as your blood pressure pills or heart pills) on the morning of surgery, you may take them with a sip of water.
- Bring in your personal care items such as a toothbrush, comb, and shampoo.
- Bring telephone numbers of your spouse/relative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

Thoracic Surgery

The Lungs

The lungs are part of the respiratory system. They make up most of the space in the chest and are separated from each other by the mediastinum, an area that contains the heart, trachea (windpipe), esophagus, and many lymph nodes. The right lung has three lobes and is a little larger than the left lung, which has two lobes. The lining of the lungs is called the pleura.

The lungs exchange oxygen and carbon dioxide. Air enters the nose and mouth, travels down the windpipe (trachea) into the large airways or tubes called bronchi. In the lungs, the bronchi divide into smaller tubes called bronchioles. The bronchioles end in tiny air sacs called alveoli. This is where oxygen passes into the blood stream and is carried to the body's cells. The lungs also get rid of carbon dioxide, a waste product of the body's cells. At rest, a person breathes at a rate of 12 to 14 breaths per minute and moves about 500 mL of air with each breath.



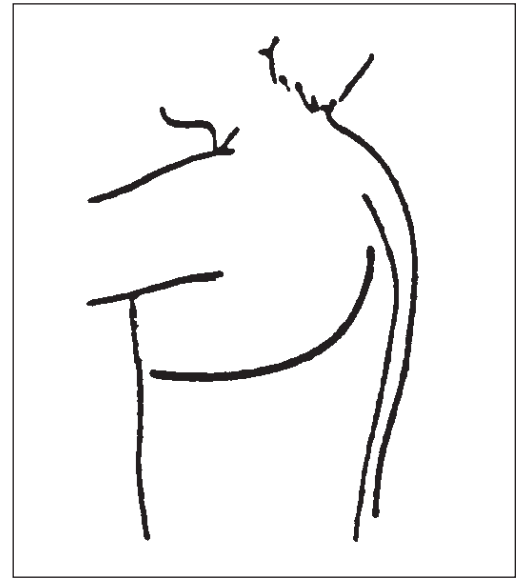
Lungs

Lung Cancer

Treatment for lung cancer depends on the lung cancer cell type, size, location in the lungs, extent, individual age, general health and feelings about the treatment. Surgery, radiation, and chemotherapy can treat lung cancer. Your treatment includes surgical removal of part or the entire lung. This is also called *pulmonary resection*.

Pulmonary Resection

Three main types of surgery are used in lung cancer treatment. The choice depends on the size and location of the tumor, the extent of the cancer, and the general health of the patient. The surgeon will remove only the diseased portion of the lung. All types of lung operations require a thoracotomy which is an incision (cut) into the chest wall usually extending from just below your underarm to around the back and is closed with sutures or staples covered with a dressing. An operation to remove a small part of the lung is called a *segmental* or *wedge* resection. An operation to remove a lobe of the lung is called a *lobectomy*. A *pneumonectomy* is the removal of an entire lung. During the procedure the chest wall is opened, ribs are spread apart and the lung is entered to remove the diseased portion.



Location of Incision

The surgery is performed while you are sleeping as a result of a general anaesthetic. The length of surgery depends on the extent of the resection, and can take up to four hours.

After Surgery (Post-Op)

Following surgery, you will awaken in the Post-Anaesthetic Care Unit (PACU). You will remain there for four to six hours and then be transferred to the 6th floor Observation Unit – room 6330. When you are ready, you will be transferred to a room on the 6 North West Thoracic Unit.

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 an increase in pain but should not prevent you from deep breathing and coughing, and moving about as well as you like.

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 type of pain medication and the method of delivery will be decided by your anesthesiologist.

There are two types of medication used: pain killers (opioids) and freezing (local anaesthetics). Painkillers are used with the IV and epidural catheter. Freezing is only used with an epidural catheter.

- **Pain killers:** 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:** 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 to 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.

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

Inform your nurse if you have any of the following:

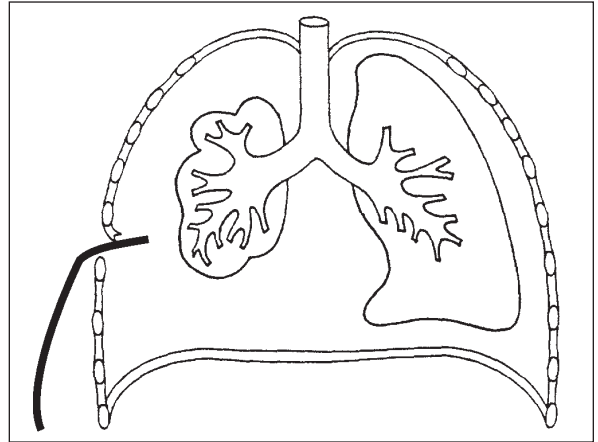
- itching skin
- nausea and/or vomiting
- unrelieved pain
- heaviness in your legs
- tingling or numbness
- increased sleepiness

After a few days the epidural or pump containing medication will be stopped and you will be given pain medication by mouth as needed.

Chest Tubes Drainage

This section is for all pulmonary resections except pneumonectomy (removal of the entire lung).

After chest surgery, extra air and fluid tend to collect in the chest cavity. One or two chest tube(s) will be placed around the lung in the chest (pleural space). The chest tube(s) is/are attached to a drainage system to help drain the fluid and air. Expect to see blood in the tube(s). An x-rays of your chest will be taken daily for the first few days to monitor your progress. The tube(s) is/are usually removed after a few days; however, they may be removed as early as the day after your surgery.



Chest tube drainage in the chest cavity

You should avoid lying or sitting on the chest tube(s) while in bed. Do not pull on the chest tube(s). You will be helped to walk in the hall while the chest tube(s) is/are in place. Tell your nurse if you find it hard to breathe.

Intravenous (IV)

You will have an IV to replace your fluids until you are able to drink well. Once you are drinking sufficiently, the nurses will stop the IV fluids but maintain IV access with 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.

Wound Care

The dressing from your chest incision is usually removed after a few days and left open to the air if it is not draining.

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

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 and coughing exercises after surgery will help with healing your lungs. They 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 in and cough.

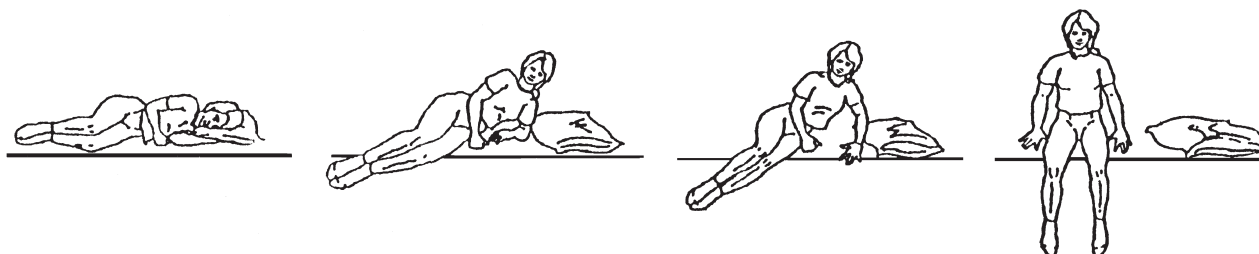
Moving in Bed

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 blanket or pillow.
- 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

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:

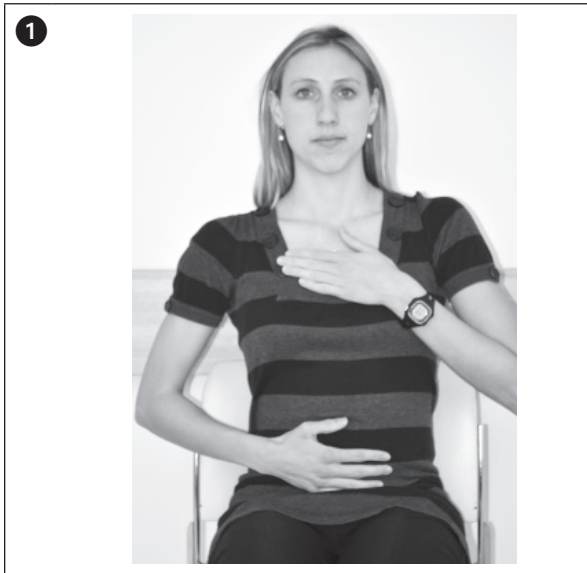


Bad posture



Good posture

Deep Breathing Exercises



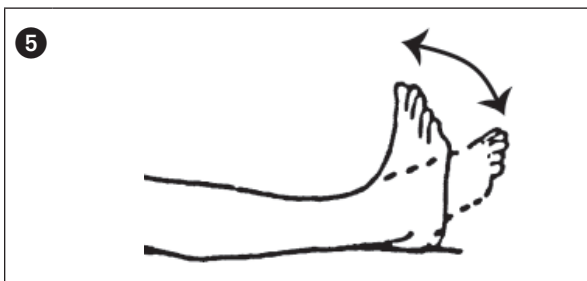
- Relax your shoulders while sitting with one hand gently on your stomach just below the rib cage.
- Breathe in slowly while trying to inflate your stomach (you should feel it expand). Hold for three seconds and relax. This is diaphragmatic breathing.



- 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.

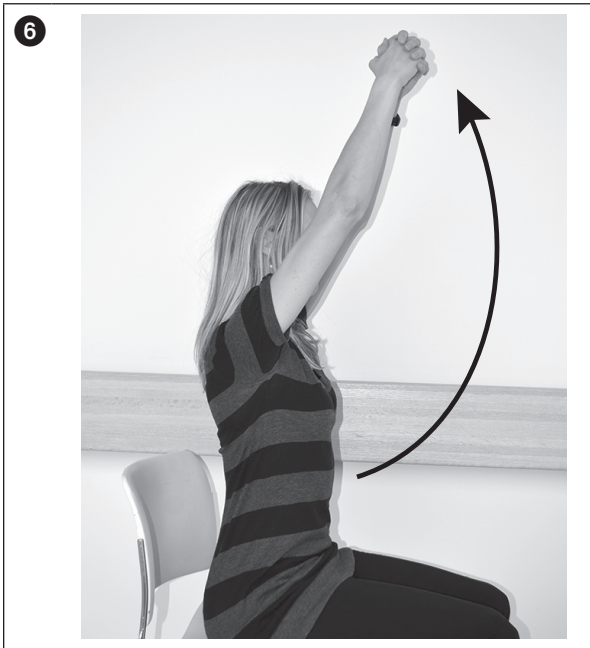
- Take a **deep** breath in and hold for three seconds.
- Let the air out slowly through your mouth breathing out **as long as you can**.
- This may help to cough up secretions.

- 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.



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

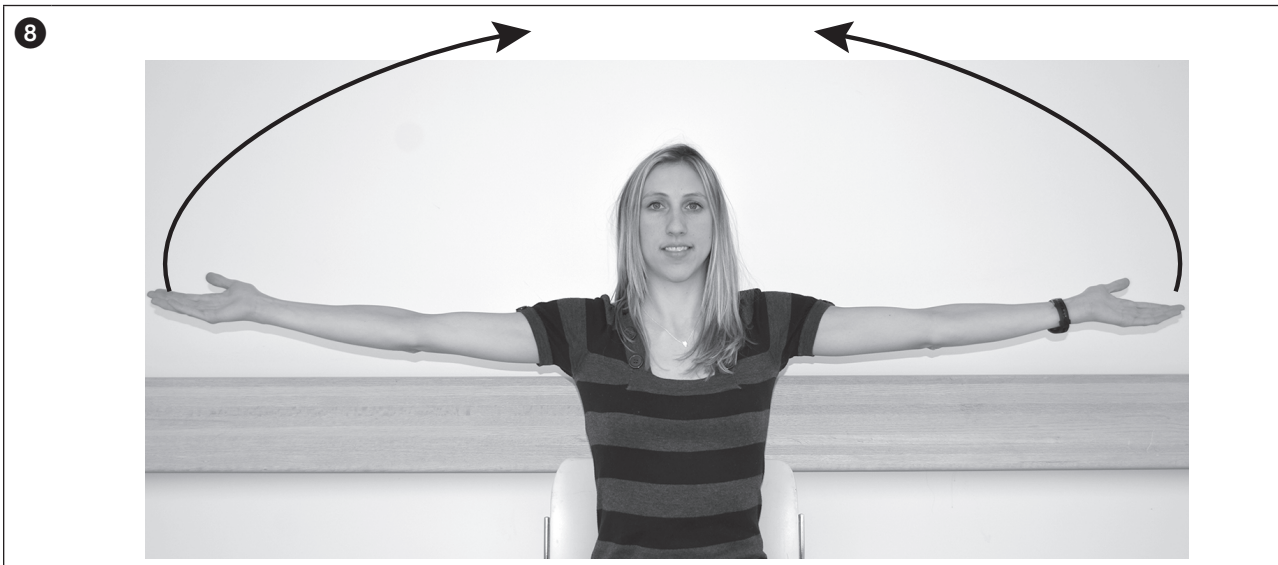
Arm and Shoulder Exercises



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



- 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.

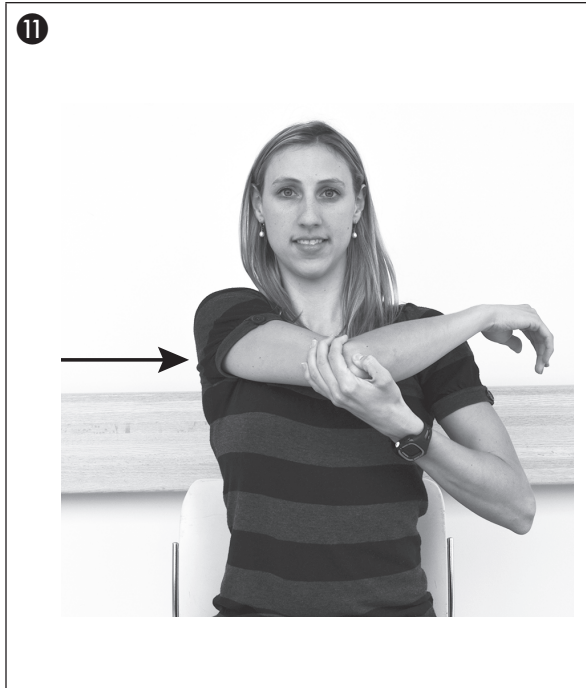
Rib Cage Mobility Exercises



- 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

- Continue with the shoulder/arm exercises, deep breathing exercises, and walking as discussed with your physiotherapist.
- 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 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 to 72 hours after the tube(s) were taken out. There may also be a stitch at the chest tube site. This can be removed by your family doctor/walk in clinic (48 hours after your chest tube is removed).
 - 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 and pat incision dry.
- Wear loose clothing while wound is still tender.
 - Continue with exercises to prevent scar tissue and chronic pain.

Medication

- Take pain medication as you need to, for example, before going to bed, prior to activities. You should expect some pain for a length of time after discharge.
- Add fibre 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.

When to Call the Doctor or Go to the Emergency Department

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.
- Persistent cough
- Difficulty breathing
- Blood in sputum
- 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 OR the Ages Cancer Assessment Clinic located at the General Campus, 7th Floor, Room 7410.

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 diagnosis and treatment of lung cancer may have a major impact upon you and the people close to you. The disease may affect your physical, emotional, social, spiritual and practical needs. As a result, you may experience many issues. There are many resources available within the hospital, community and internet to help you and your family.

The Ottawa Hospital Learning Services

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

Publications

- *Living with Lung Cancer: A Guide For Patients and their Families*, 4th Edition.
Available in the Consumer Health Library or
Trial Publishing Co.,
P.O. Box 13355, Gainesville, Florida 32604

- *What You Really Need to Know About Cancer: A Comprehensive Guide for Patients and Their Families.* R. Buckman, Key Porter, 1995.
- *Everybody's Guide to Cancer Therapy: How Cancer is Diagnosed, Treated, and Managed Day to Day.* M. Dollinger, E.H. Rosenbaum, G. Cable. Sommerville House, 1995.
- *Coping With Cancer Magazine*
Published bi-monthly phone: 615-790-2400
E-mail: Copingmag@aol.com

Telephone

- **Canadian Cancer Society** 1-888-939-3333

General information on health

- www.canadian-health-network.ca
The Canadian Health Network (CHN) is a national, bilingual Internet-based health information service. Health Canada, its founding Partner, provides funding for CHN.
- www.nlm.nih.gov
U.S. National Library of Medicine. Select "Medline Plus" to find information for patients on cancer and other health topics. You can search the Medline database (PUBMED) for free from this site.

General information on cancer

The web sites in this section are from national, government, non-profit and professional organizations and contain general information on cancer treatment, prevention, support etc. and links to other sites. If you are looking for information on rare cancers, you may wish to check these sites.

National organizations:

- www.cancer.ca
Canadian Cancer Society – includes information about prevention, treatment, support in the community. Many booklets are available in PDF format.
- cancer.org – American Cancer Society

Government and non-profit organizations

- cancercare.on.ca
Cancer Care Ontario is the agency of the Government of Ontario that oversees provision of cancer care in the province. Practice guidelines, drug information and links to the other Cancer Centres in Ontario are found here.
- www.cancer.gov
U.S. National Cancer Institute's site. Treatment and supportive care information for patients and health professionals. Clinical trials information is available here.
- www.cancercare.org
Cancercare. Offers treatment information, supportive care and many free publications. U.S.

- www.cancerindex.org
Guide to Internet Resources for Cancer. Extensive resources for cancer information from around the world. A good source for information on rare types of cancer. U.K.
- www.hc-sc.gc.ca
Health Canada's Web site. Has information on many health-related topics, as well as cancer. Also has information on nutrition.
- www.oncolink.org
Oncolink, from the University of Pennsylvania Cancer Centre, is an excellent source of treatment, clinical trial, support information and cancer news. U.S.

Professional organizations:

- www.asco.org
American Society of Clinical Oncology. ASCO is the professional organization which represents cancer physicians.
- www.astro.org
American Society for Therapeutic Radiology and Oncology. Includes patient information on radiation therapy and related links.

Cancer Web Resources

- Canadian Cancer Encyclopedia: www.thecanadianencyclopedia.com/en/article/cancer/
- Lung Cancer Alliance: www.lungcanceralliance.org
- Canadian Cancer Society/National Cancer Institute: www.cancer.ca
- CancerNet (U.S. National Cancer Institute): www.cancer.net
- Wellspring (cancer support group): www.wellspring.ca
- The Ottawa Hospital – Thoracic surgery web site: www.ottawahospital.on.ca
Click on: Clinical services, Departments, Programs, Clinics and Services, Thoracic Surgery, Patient Information

We hope this book has helped to guide and support you at this time. The information comes from team members and patients like yourself. Your suggestions are important. 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.

**The Ottawa Hospital, The Division of Thoracic Surgery,
General Campus
501 Smyth Road, Room 6350
Ottawa, Ontario K1H 8L6
c/o Thoracic Surgery Research Account or
Thoracic Surgery Epidemiology Research Account**

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