

# Video-Assisted Thoracoscopic Surgery (VATS) Pulmonary Resection

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

### **Disclaimer**

This is general information developed by The Ottawa Hospital and adapted by Nova Scotia Health Authority. It is not intended to replace the advice of a qualified health care provider. Please consult your health care provider. They will be able to determine the appropriateness of this information for your specific situation.

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# Introduction

You are being admitted to the Victoria General Hospital at Nova Scotia Health Authority (NSHA) for Pulmonary Resection surgery. This guide will tell you how to get ready for surgery, your hospital stay, and care at home after surgery.

The Health Care Team has put together this Clinical Pathway so you will know what will happen to you before surgery and each day after surgery. A Clinical Pathway is a general guideline about your care. Please refer to pages 2 and 3 of this guide for a day-to-day overview of what to expect.

Make sure to read this guide and bring it with you to the hospital. Your Health Care Team members will refer to this guide during your hospital stay.

**The Thoracic Clinic is located at the Victoria General Hospital, Dickson building, 1st and 4th floors.**

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<b>Clinical Pathway</b> <b>VATS Lobectomy/Segmentectomy/Wedge Resection</b>			
	Pre-admission	Day of admission/surgery PRE-op	Day of admission/surgery POST-op
<b>Tests</b>	<ul style="list-style-type: none"> <li>Blood work</li> <li>ECG</li> <li>Chest X-ray</li> </ul>	<ul style="list-style-type: none"> <li>Blood work (if ordered)</li> </ul>	<ul style="list-style-type: none"> <li>Chest X-ray</li> <li>Blood work</li> </ul>
<b>Consults</b>	<ul style="list-style-type: none"> <li>Physiotherapy</li> </ul>		
<b>Treatments</b>		<ul style="list-style-type: none"> <li>Intravenous (IV)</li> </ul>	<ul style="list-style-type: none"> <li>Wound dressing</li> <li>Urinary catheter</li> <li>Intravenous (IV)</li> <li>Chest tube</li> <li>Pain medication: subcutaneous/oral</li> </ul>
<b>Medications</b>		<ul style="list-style-type: none"> <li>Patient-specific medications</li> <li>Antibiotic</li> </ul>	<ul style="list-style-type: none"> <li>Patient-specific medications</li> <li>Pain medication: subcutaneous/oral</li> <li>Oxygen as needed</li> <li>Anti-coagulant</li> <li>Bronchodilators</li> </ul>
<b>Activity</b>		<ul style="list-style-type: none"> <li>Regular activity</li> </ul>	<ul style="list-style-type: none"> <li>Head of bed up</li> <li>Deep breathing &amp; coughing every hour while awake</li> <li>Walk in hall (as tolerated)</li> <li>Foot &amp; ankle exercises</li> </ul>
<b>Nutrition</b>		<ul style="list-style-type: none"> <li>Nothing by mouth after midnight the night before surgery</li> </ul>	<ul style="list-style-type: none"> <li>Normal diet after surgery</li> </ul>
<b>Patient &amp; Family Teaching/ Discharge Planning</b>	<ul style="list-style-type: none"> <li>Review of Clinical Pathway &amp; patient guide               <ul style="list-style-type: none"> <li>› smoking cessation</li> </ul> </li> <li>Discuss discharge plans</li> <li>Length of stay</li> </ul>	<b>Patient teaching</b> <ul style="list-style-type: none"> <li>Review events of day of surgery</li> </ul>	<b>Patient teaching</b> Reinforce: <ul style="list-style-type: none"> <li>› deep breathing &amp; coughing</li> <li>› foot &amp; ankle exercises</li> <li>› pain control goals</li> <li>› positioning</li> </ul>

	Post-op day #1	Post-op day #2	Post-op day #3 / Discharge day
<b>Tests</b>			
<b>Consults</b>	<ul style="list-style-type: none"> <li>Physiotherapy</li> </ul>		
<b>Treatments</b>	<ul style="list-style-type: none"> <li>Wound dressing</li> <li>Urinary catheter removed</li> <li>Discontinue IV solution</li> <li>Chest tube</li> </ul>	<ul style="list-style-type: none"> <li>Incisions open to air if no drainage</li> <li>Chest tube removal if output is less than 400 in 24 hours and no air leak</li> </ul>	<ul style="list-style-type: none"> <li>Chest tube removal if output is less than 400 in 24 hours and no air leak</li> </ul>
<b>Medications</b>	<ul style="list-style-type: none"> <li>Patient-specific medications</li> <li>Pain medication: subcutaneous/oral</li> <li>Laxative</li> <li>Anti-coagulant</li> <li>Oxygen as needed</li> <li>Bronchodilators</li> </ul>	<ul style="list-style-type: none"> <li>Patient-specific medications</li> <li>Pain medication: switch to oral pain pills</li> <li>Laxative</li> <li>Anti-coagulant</li> <li>Oxygen as needed</li> <li>Bronchodilators</li> </ul>	<ul style="list-style-type: none"> <li>Patient-specific medications</li> <li>Pain medication by mouth</li> <li>Laxative</li> <li>Oxygen as needed</li> <li>Bronchodilators</li> </ul>
<b>Activity</b>	<ul style="list-style-type: none"> <li>Deep breathing &amp; coughing every hour while awake</li> <li>Up in chair</li> <li>Walk at least 3 times per day</li> <li>Post-op exercises in guide</li> </ul>	<ul style="list-style-type: none"> <li>Up in chair 3 times per day</li> <li>Activity as tolerated</li> <li>Post-op exercises as per guide</li> <li>Walk in hall 3 times per day with supervision or independently</li> </ul>	<ul style="list-style-type: none"> <li>Activity as tolerated</li> <li>Exercises in guide</li> <li>Walk in hall independently 3 times per day</li> <li>Stairs as appropriate</li> </ul>
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>Normal diet</li> </ul>	<ul style="list-style-type: none"> <li>Normal diet</li> </ul>	<ul style="list-style-type: none"> <li>Normal diet</li> </ul>
<b>Patient &amp; Family Teaching/ Discharge Planning</b>	<b>Patient teaching</b> <ul style="list-style-type: none"> <li>Reinforce: <ul style="list-style-type: none"> <li>deep breathing and coughing</li> <li>smoking cessation</li> <li>shoulder range of motion</li> <li>activity</li> <li>pain control goals</li> <li>foot and ankle exercises</li> <li>diet</li> <li>exercises in guide</li> <li>positioning</li> <li>leg exercises</li> </ul> </li> </ul>	<b>Patient teaching</b> <ul style="list-style-type: none"> <li>Reinforce: <ul style="list-style-type: none"> <li>deep breathing and coughing</li> <li>smoking cessation</li> <li>shoulder range of motion</li> <li>activity</li> <li>pain control goals</li> <li>exercises in guide</li> <li>leg exercises</li> </ul> </li> <li><b>Discharge planning</b> <ul style="list-style-type: none"> <li>Talk about expected length of stay &amp; discharge plan with patient/family</li> <li>Confirm 11 a.m. discharge tomorrow</li> </ul> </li> </ul>	<b>Patient teaching</b> <ul style="list-style-type: none"> <li>Review discharge instructions and post-thoracotomy exercise instructions in education guide</li> <li>Pain control goals</li> <li><b>Discharge planning</b> <ul style="list-style-type: none"> <li>Review discharge issues/ plan with patient/family</li> <li>Discharge home by 11 a.m.</li> <li>Followup appointment made</li> <li>Prescription(s) provided</li> </ul> </li> </ul>

# Health Care Team

These members of the health care team will help you during your hospital stay.

## **Thoracic Surgeon**

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

## **Nurse Practitioner**

The nurse practitioner (NP) works with the surgeons and residents. The NP will help you manage any acute or chronic conditions, prescribe medications, order and interpret laboratory or diagnostic tests, and perform procedures.

## **Registered Nurse and Licensed Practical Nurse**

Registered nurses (RN) and licensed practical nurses (LPN) will care for you before and after your surgery. They provide emotional support, medications, nursing care, and teaching instructions.

## **Physiotherapist**

The physiotherapist (PT) will help you with getting out of bed, walking, deep breathing, coughing, and arm and shoulder exercises.

## **Social Worker**

Social work services can be accessed at any point during your stay. A social worker will meet with you and your family for counselling, community information, and discharge planning services as needed. Before and after your surgery, you may feel many emotions, such as fear, sadness, anger and/or loss of control. Sometimes help is needed to cope with these feelings.

## **6A Thoracic Unit**

The team includes doctors, nurses, physiotherapists, respiratory therapists, a social worker, a continuing care coordinator, a dietitian, and an occupational therapist.

## **Intermediate Care Unit (IMCU)**

The IMCU team includes doctors, nurses, a physiotherapist, a respiratory therapist, a social worker, a dietitian, and an occupational therapist. The 6th floor IMCU is a monitoring unit located on the thoracic unit.

# Getting Ready For Surgery

## Helpful info before coming to hospital

- Stop smoking! Avoid tobacco in any form. This includes pipes, cigars, cigarettes, and chewing tobacco. Tobacco smoke has many harmful substances that damage cells. Over time these cells can become cancerous. Smoking also puts you at risk for lung complications after surgery. Tobacco smoke destroys cilia (lining of the airway). Cilia help clear secretions (mucus). As a result, you will be less able to clear secretions after surgery.
- Even shortly before surgery, stopping smoking helps recovery. It is never too late to stop smoking. The following smoking cessation programs can help you stop smoking:
  - ☐ **Getting Started Sessions**
    - › this service consists of a 1-hour information session where participants get information about the stopping process, as well as options for followup support. The program is free. Getting Started Sessions are offered on a regular basis throughout NSHA.
  - ☐ **Keeping it Going Sessions**
    - › this is a 4-week program where participants receive a workbook, tips, advice, and strategies. They are also invited to try Nicotine Replacement Therapy (NRT) to support them in their efforts to be tobacco-free.
- If you would like to know more about NSHA's Stop Smoking Services, please call 1-866-340-6700.
- Another helpful resource is The Lung Association of NS; please call 902-443-8141.
- Make plans for help in your home after surgery before coming into hospital.
- Look at your Clinical Pathway so you and your family know what to expect each day.



## Pre-admission visit

- You will have blood tests, a urinalysis (urine test), an electrocardiogram (heart test), and a chest X-ray.
- An anesthesiologist (doctor who gives you sleeping medication during surgery) will ask you questions about your health, and explain your anesthetic (sleeping medication) and pain control.
- A nurse will ask you questions and tell you about leg, 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 12).

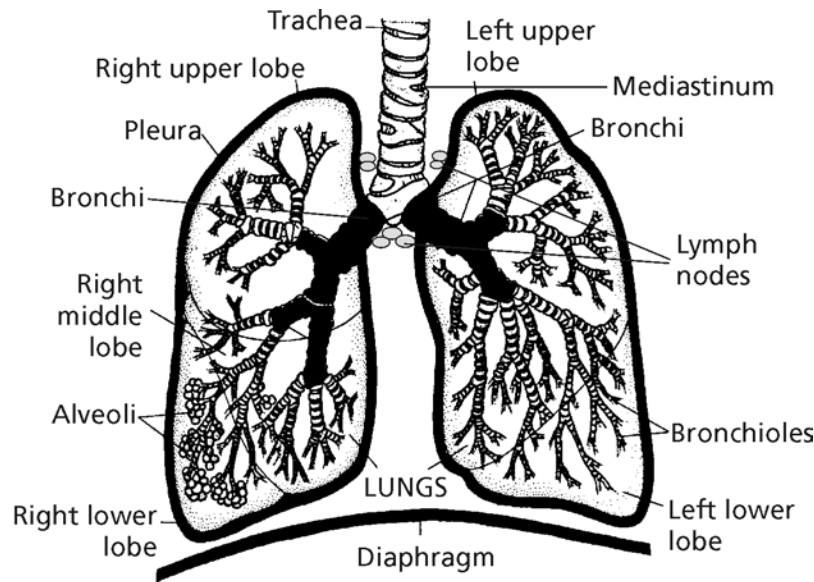
## Day before and day of surgery

- Do not eat or drink after midnight the night before your surgery. **If you have been told** to take your usual medications on the morning of surgery (for example, your blood pressure pills or heart pills), use only a sip of water.
- Do not smoke or drink any alcohol 24 hours before surgery.
- Bring in both home and work telephone numbers of your spouse or a relative who will be helping you, so they can be contacted if needed.
- Bring your personal care items, such as a toothbrush, comb, shampoo, and cream. Do not bring scented products. NSHA is scent-free.
- Do not bring any valuables. The hospital is not responsible for the loss of any item.
- If you have a personal directive, please bring a copy with you.
- Bring in appropriate-fitting footwear such as sneakers.

# Thoracic Surgery

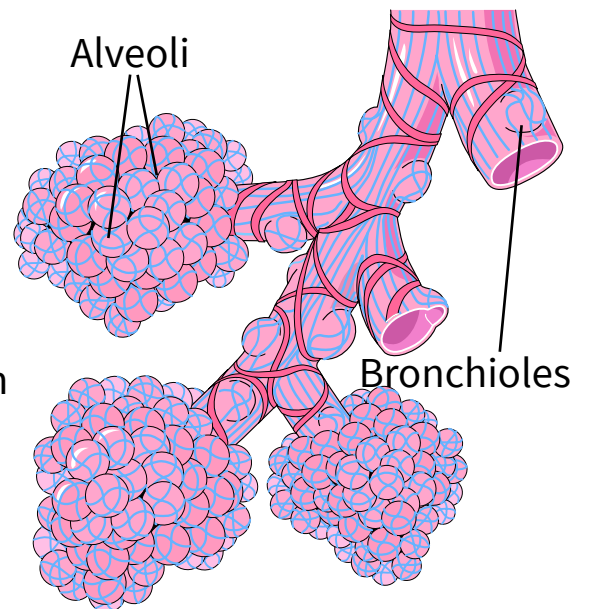
## The lungs

The lungs are part of the respiratory (breathing) system. They take up most of the space in the chest. They 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 3 sections, called lobes, and is a little larger than the left lung, which has 2 lobes. The lining of the chest wall is called the pleura.



The lungs exchange oxygen and carbon dioxide. Oxygen is in the air we breathe. Air enters the nose and mouth, then travels down the wind-pipe (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 bloodstream and is carried to the cells. The cells need oxygen to live and carry out their normal functions. 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 12-14 breaths per minute and moves about 500 mls of air with each breath.



## Lung cancer

Lung cancers are generally divided into 2 types: non-small cell lung cancer and small cell lung cancer. Non-small cell lung cancer is more common than small cell lung cancer.

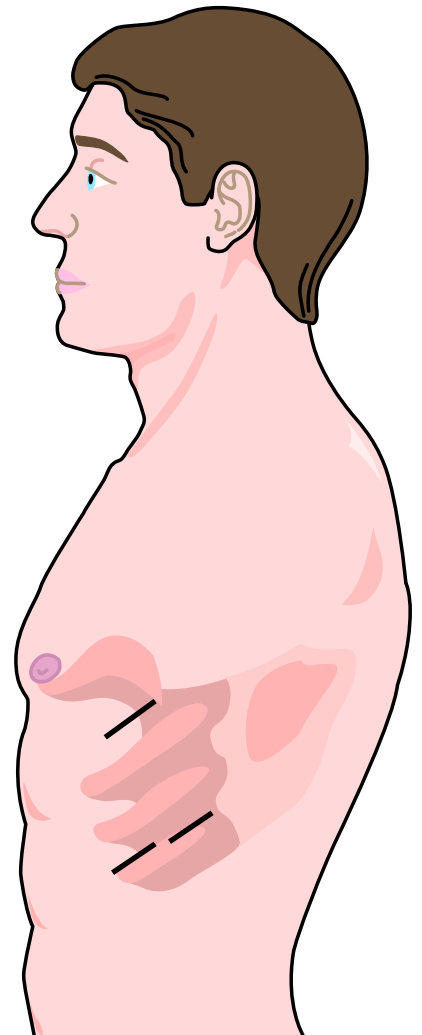
The cancer cells of each type grow and spread differently. Treatment for lung cancer depends on the lung cancer cell type, size, location in the lungs and extent (how far it has spread), as well as the patient's age, general health, and feelings about the treatment. Surgery, radiation, and chemotherapy can treat lung cancer. Surgery is a procedure that may cure lung cancer in its early stages if it has not spread to other parts of the body. Your treatment includes surgical removal of part of your lung. This is 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 tumour, the extent of the cancer, and the general health of the patient. The surgeon will remove only the diseased part of the lung. A surgery to remove a small part of the lung is called a segmental or wedge resection. A surgery to remove a lobe of the lung is called a lobectomy.

A Video-Assisted Thoracoscopic Surgery (VATS) is a minimally invasive surgical technique. Three or more one-inch incisions are made in the chest in order to access inside the chest. A tiny fibre-optic camera (called a *thoroscope*) is inserted through one incision, and surgical instruments are inserted through the other small incisions. The thoroscope sends images of the inside of the chest to a video monitor, guiding the surgeon in moving the instruments to complete the procedure and remove the diseased part.

The incisions will usually be closed with dissolving stitches and may have tape-like bandages called Steri-Strips™ over the incisions and/or be covered with Band-Aid®-like dressings.



The surgery is done under a general anesthetic, which means that you will be asleep. The length of surgery depends on the extent of the resection, and can take up to 1 and a half hours. After surgery, you will wake up in the Post-Anesthetic Care Unit (PACU). You will stay there until you are stable and then be transferred to the 6th floor. You will be in either the Intermediate Care Unit (IMCU) for an overnight stay, or a room on the Thoracic Surgery Unit. The location will depend on the type of resection, your medical history, and any concerns that may have come up in the OR or PACU.

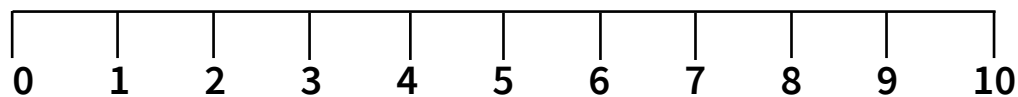
## After Surgery

### Pain management

Pain is personal. The amount or type of pain you feel may not be the same as others, even for those who have the same surgery. The goal is minimal (as little as possible) pain at rest and managed pain with activity. With good pain control at rest, you will be comfortable enough to sleep. With activity, there may be a bit more pain, but the pain should not stop you from coughing, deep breathing, and moving about as you like.

Your pain will be assessed using a scale of 0–10. Zero (0) is no pain and 10 is the worst pain possible. You will be asked to rate your pain level during rest and activity. You will also be asked if the pain prevents you from moving and if you are satisfied with your pain. Pain is harder to control when it gets to be too much.

These assessments will help determine how effective your treatment is and whether changes in medications are needed.



### Why is pain control so important?

Less pain means less stress on your body. Your body will heal better with less stress. With less pain, you start walking, do your breathing exercises, and get your strength back more quickly. This lowers your chances of other problems, such as infection and blood clots.

## **Pain control can help you:**

- Have greater comfort while you heal.
- Get well faster – with less pain you can start walking, do your breathing exercises, and get your strength back more quickly.
- Avoid problems such as pneumonia and blood clots.
- Leave the hospital sooner.

## **Tell your nurse if you have any of the following:**

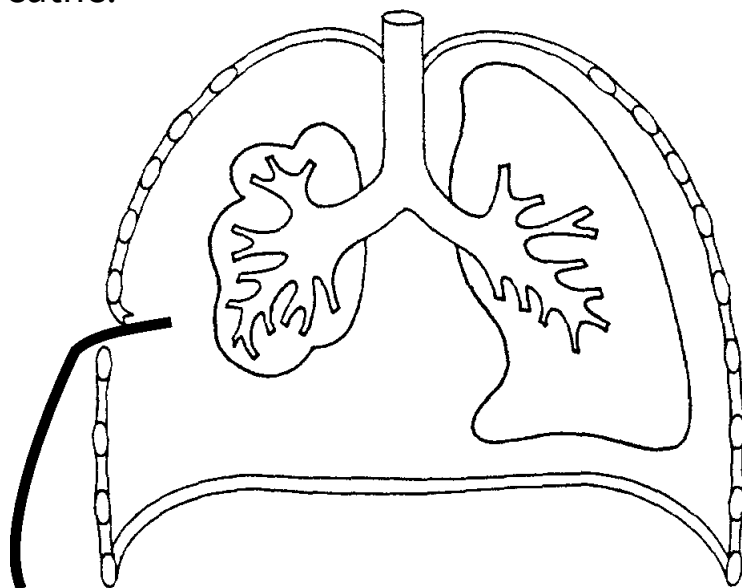
- › itchy skin
- › nausea and/or vomiting (feeling sick to your stomach and/or throwing up)
- › pain that does not get better
- › heaviness in your legs
- › tingling or numbness
- › increased sleepiness

## **Chest tube drainage**

After chest surgery, extra air and fluid tend to collect in the chest cavity. A chest tube will be placed around the lung in your chest. The chest tube is attached to a drainage system to help drain the fluid and/or air.

Expect to see blood in the tube for the first couple of days; this is normal. An X-ray of your chest will be taken to decide when the tube should come out. The tube is generally removed after a few days, however it may be removed as soon as the day after your surgery.

Do not lie on the chest tube while in bed. Do not pull on the tube. You will be helped to walk in the hall while the chest tube is in place. Tell your nurse if you find it hard to breathe.



**Chest tube drainage in the chest cavity**

## **Intravenous (IV)**

You will have an IV to replace your fluids until you are able to drink well. Do not pull on the IV tubing. When you are 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.

## **Wound care**

The dressings on your incisions are usually removed after a few days and the incisions are left open to the air to promote healing. Steri-Strips™ (thin tape) may be in place over your incisions. Please do not pick at or remove them, as they will come off on their own.

You will have a dressing at your chest tube site. It will be changed every 3 days or as needed.

## **Oxygen**

Oxygen is an important part of the air we breathe. Sometimes the body may need extra oxygen. This may be because of lung disease, heart disease, or the demands of surgery. Extra oxygen can help restore normal oxygen levels in the blood and body tissues, and reduce the workload of the heart and lungs. During your hospital stay, you may receive extra oxygen. This is given through a mask over your nose and mouth or small tubes in your nostrils (nasal cannulae).

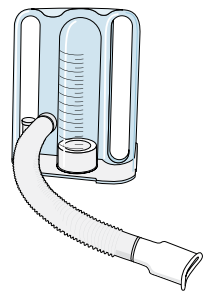
The amount of oxygen in your blood is tested by placing a small clip on your finger. This is called pulse oximetry. This test is used to check that your body is getting the right amount of oxygen. When you no longer need extra oxygen, the clip will be removed.

## Deep breathing and coughing

The lungs exchange oxygen and carbon dioxide. Oxygen passes into the bloodstream from the tiny air sacs called alveoli and is carried to the cells. The cells need oxygen to live and carry out their normal functions. The lungs also get rid of carbon dioxide, a waste product of the body's cells. Usually, the alveoli stay open because we tend to take large breaths. Because of surgical procedures, anesthesia, pain, or immobility (not moving), we tend to take smaller breaths which may cause the alveoli to close. Deep breathing and coughing exercises after surgery will help keep your lungs healthy.

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

- Support your incision with a small blanket or pillow.
- Take a deep breath in through your nose. Hold for 2-3 seconds. Breathe out through your mouth slowly.
- You may also use the incentive spirometer by putting your lips tightly around the mouthpiece. Breathe in deeply and try to hold the ball up as long as you can. Remove the mouthpiece, breathe, and rest for a few seconds.
- Repeat either exercise 10 times every 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 5 deep breaths.

### To do coughing exercises:

- Support your incision with a small blanket or pillow.
- Take a deep breath and cough – clearing your throat is not enough.

## Ankle exercises

These exercises help the blood circulate in your legs while you are less active. Do these 10 times every hour while you are awake, until your activity level increases.

With your legs flat on the bed:

- Point your feet toward your body.
- Point your feet away from your body.
- Move your ankles in a circle clockwise, and then counter-clockwise.

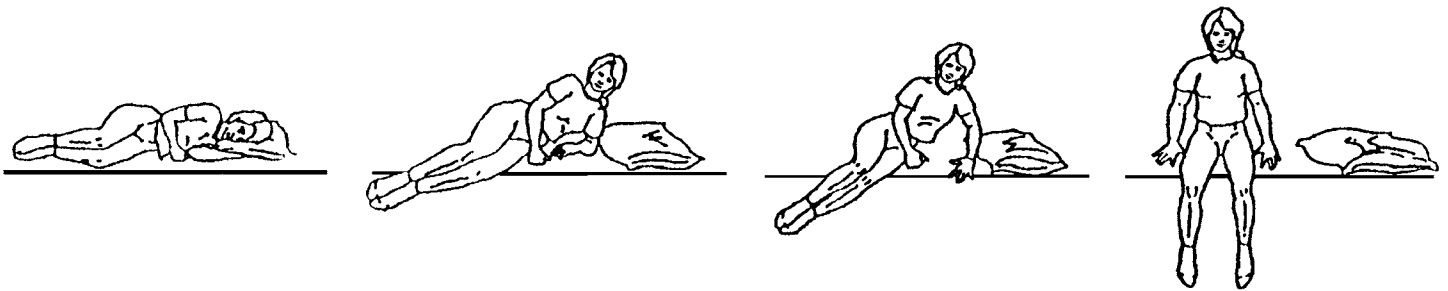
## Moving in bed

While you are in bed, it is important to move. Do not worry about the tubes you have in place, just avoid lying on your incision and chest tube. Move at least every 2 hours while awake.

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

## Getting out of bed

- Do not get out of bed by yourself for the first time. A nurse will help you.
- Bend your knees and roll onto your side where there is no incision. 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.
- If you feel lightheaded, rest for a few minutes and call your nurse to help you.



## Post-op (post-operation) exercises

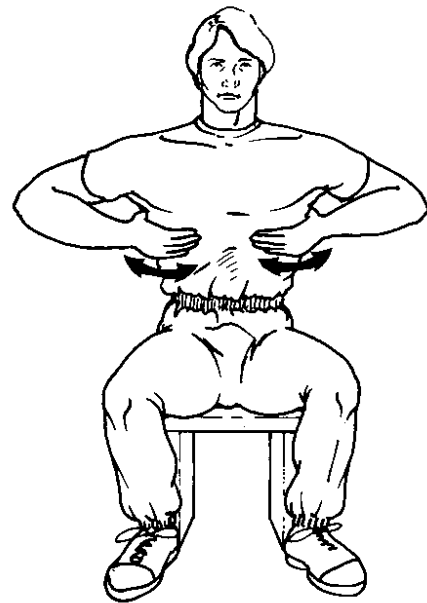
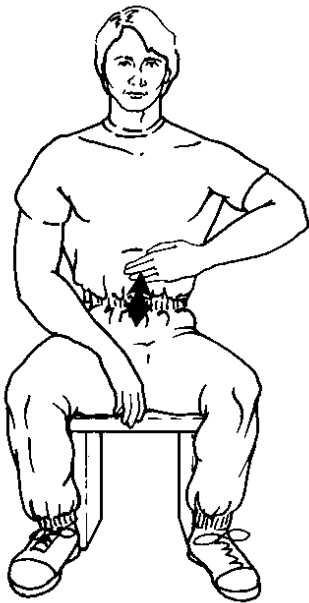
The physiotherapist will supervise and help you in the progression of this exercise program. Each exercise **should be repeated 10 times every hour at first**, unless you're told otherwise. Continue to do this program when you are at home. Some exercises will help you with airway secretion removal and help to avoid breathing problems such as pneumonia. Others will help to get you active in the recovery period.



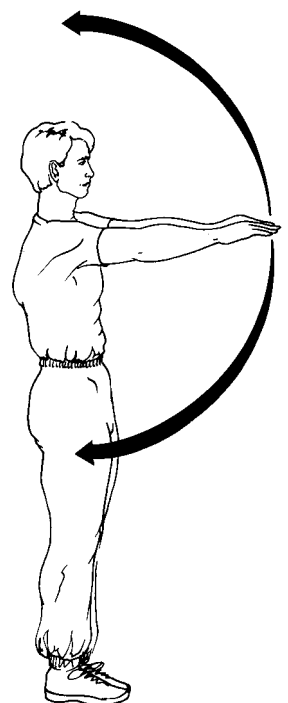
## Post-op day #0-1

With help, you will be required to sit up in a chair and/or walk 2-3 times/day.

1. Sitting, with shoulders dropped and leaning forward, place one hand gently on your stomach just below your rib cage.
  - › you should feel your stomach expand (get bigger) as you breathe in and sink in as you breathe out. (This is diaphragmatic breathing.)
2. Sitting, place a hand on your ribs on the side of your surgery.
  - › breathe in deeply as you try to expand your rib cage sideways against your hand.
  - › breathe out of your mouth slowly.



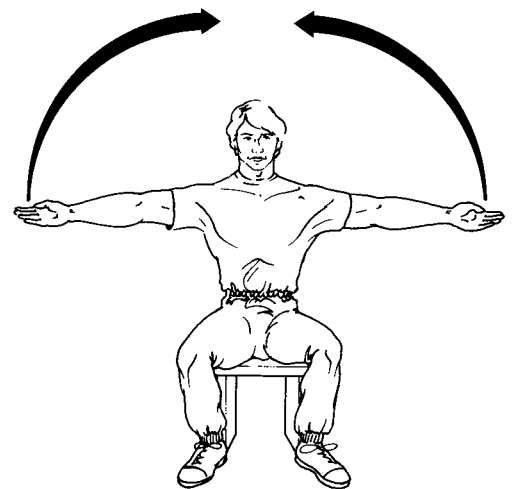
3. Take a deep breath in through your nose, hold for 2-3 seconds, then let the air out slowly through your mouth (lips pursed), breathing out as long as possible.
  - › you should repeat this cycle 3 times in a row before coughing (#4).
4. Supported cough: use a pillow or folded blanket to support your incision as you cough to clear secretions out of your lungs.
5. In bed, or sitting or standing, lift both arms up in front of you (keeping elbows straight) while breathing in. Lower your straight arms while blowing out. See image at right:



6. Feet and ankles: pump and circle constantly until you are walking on your own.
7. Incentive spirometer: the physiotherapist or nurse will show you how to use this to improve your breathing.

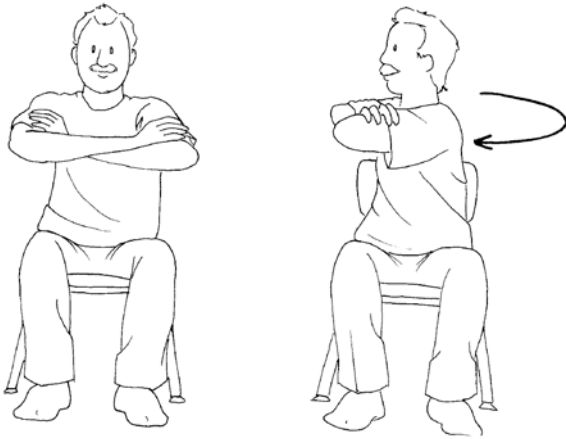
### **Post-op day #2-3**

- Continue with the post-op day #1 exercises and add the following exercises 3 times per day.
  - With minimal assistance, you should walk in your room and progress to the hallway at least 3 times.
8. Sitting or standing, roll your shoulders in both directions (make sure both shoulders are doing the same movement).
  9. Sitting or standing with your arms by your sides, lift your arms away from your sides (with elbows straight) leading with your thumbs.



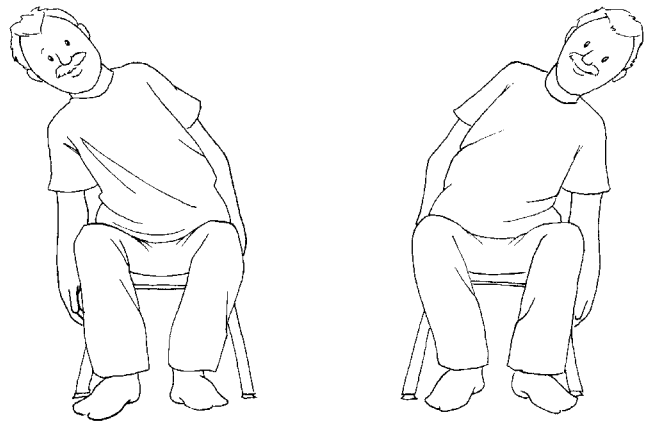
10. Sitting with your arms crossed in front of you, hands on your shoulders:

- › turn your body to the right until you feel a comfortable stretch to the incisions. Then turn to the left to stretch your other side.



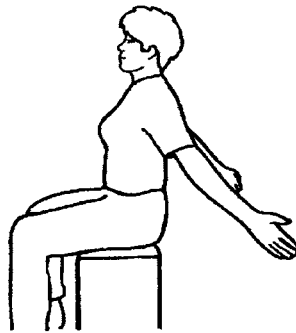
11. Sitting or standing, lean over to one side to reach the floor (as your hand slides down the side of your leg).

- › try not to lean forward or backward.
- › bring your other arm (the one not reaching for the floor) up to the side.
- › repeat on the other side.



12. Sitting with your back straight, pull your shoulder blades together while turning your thumbs and hands outwards.

- › then, touch your elbows together in front of you.



## NOTES

- If you are concerned about using stairs at home, these can be practiced with help before discharge.
- Continue with the exercises on pages 14-16. Do these exercises 2-3 times every day for at least 2 weeks while your incisions are healing.
- Check your posture frequently in front of a mirror. You may tend to lean towards your operated side and that shoulder may drop down and forward. Watch for this and correct it.
- Progress all your activities **bit by bit over time**. Let pain be your guide! Talk about increasing your activity level with your surgeon at the followup appointment.
- Remember, exercises are needed in the recovery phase, but rest is also important!
- Sitting or standing and using your arm on the operated side, reach with your hand to touch your opposite shoulder. Once you can do this, try reaching over your shoulder and further down your back.

## Going Home

### Discharge planning

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

You may have concerns about how you will manage once you return home. These might include such issues as:

- I live alone. How will I manage?
- I'm worried and scared. Who can I talk to?
- I have young children and I'm told I can't lift anything. What do I do?
- My spouse is ill. Who will take care of them while I'm in the hospital?

If you have any concerns, ask to see a social worker as part of your discharge plan.

Arrange for someone to pick you up at 11 a.m. on the day of discharge. You will receive a prescription for medication. You will be given a followup appointment to see your thoracic surgeon in about 3-5 weeks. You will receive notification of your followup appointment date and time by mail or phone.

**Be sure you understand the information you've been given about:**

- › activity
- › followup visit(s)
- › medications
- › post-op exercises
- › when to call the doctor
- › wound care

## **Followup**

You will be contacted by phone or mail with an appointment to see your thoracic surgeon in 3-5 weeks at the Thoracic Surgery Clinic. You may need to have a chest X-ray before your appointment with the surgeon. Please go to the X-ray Department 15 minutes before your appointment, and bring the requisition form for the X-ray with you. During this visit, your thoracic surgeon will listen to your lungs, check your incisions, and review your chest X-ray. Use this time to talk with your thoracic surgeon about any specific concerns you have. **If you can't keep your appointment, please call your surgeon's office and let them know.**

Followup care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

## **At home**

### **Activity**

- Continue with the shoulder and arm exercises, deep breathing exercises, and walking as discussed with your physiotherapist.
- Stairs are encouraged and are a great exercise during your recovery.
- Avoid hard exercise including lifting heavy objects such as grocery bags, snow shovelling, and pushing a lawn mower until after you have seen your doctor for your followup appointment.
- You may gradually lift things over 5-10 pounds after 2 weeks.

- Return to your regular activities bit by bit over 6 weeks. Talk about any specific concerns with your doctor.
- Do not drive until after you have stopped taking opioid (pain) medication for at least 24 hours or you have seen your doctor for your followup appointment.
- Rest often as needed. Let your body be your guide.
- If you need to fly within 6-8 weeks after your surgery, please talk with your health care team.

## **Wound care**

- You may shower 3 days after your chest tube is removed. You may take a bath 1 week (7 days) after your chest tube is removed. Avoid hot tubs, jacuzzis, and saunas for 6 weeks. Soaking in a tub for long periods may slow the healing of your incision. Clean your incision with mild soapy water. Pat the incision area dry. Do not rub your incision.
- Swelling or bruising may appear around the wound. This is normal and may continue for several weeks.
- Check the incision every day for increased redness, a bad smell from the incision sites, tenderness, drainage, or open areas. Tell your doctor if any of these happen.
- There may be a stitch at the chest tube site. This will be removed by your family doctor or a walk-in clinic in 7-10 days. Let your Steri-Strips™ fall off on their own. Do not pull them off. Steri-Strips™ may stay on for about 14 days at the most.
- Wear loose clothing while the wound is still tender.

## **Medication**

- Take pain medication as needed, for example, before going to bed and before activity. You should expect some pain for a length of time after discharge, but it should be manageable.
- Add fibre to your diet to avoid constipation (not being able to poop) from the pain medication, for example, bran, whole grains, and fruit. A laxative or stool softener may be needed until your bowels are regular. Ask your pharmacist about choosing the right stool softener, if needed.

### **When to call for help**

Call 911 any time you think you may need emergency care. For example, call if:

- › you passed out (fainted or lost consciousness)
- › you have severe (very bad) trouble breathing
- › you have sudden chest pain and shortness of breath, or you cough up bright red blood

### **Call your doctor or 811, or go to the nearest Emergency Department if:**

- You are not able to keep fluids down.
- You have a fever over 38°C/100.4°F.
- You have loose stitches, or your incision opens up.
- Bright red blood has soaked through the bandage over your incision.
- You have signs of infection, such as:
  - › increased pain, swelling, warmth, or redness at the incision site
  - › bad smell from the incision sites
  - › red streaks leading from the incision
  - › pus draining from the incision
  - › swollen lymph nodes in your neck, armpits, or groins
  - › a fever
- You cough up a lot more mucus than normal, or your mucus changes colour.

Watch closely for changes in your health, and be sure to contact your doctor if you have any problems.

For 24/7 advice and general health information from a Registered Nurse, call 811.

**We hope this guide has helped you. The information comes from health care team members and patients like you. Your suggestions are important.**

## **Resources**

The diagnosis and treatment of lung cancer may have a major impact on 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, the community, and online to help you and your family.

## **Publications**

- Living with Lung Cancer: A Guide For Patients and their Families, 4th Edition. Available from Triad 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.
- Everyone's Guide to Cancer Therapy: How Cancer Is Diagnosed, Treated, and Managed Day to Day. A. KO, M. Dollinger, E.H. Rosenbaum, Andrews McMeel Publishing, 2008.
- Coping with Cancer
  - › Phone: 615-790-2400
  - › E-mail: [info@copingmag.com](mailto:info@copingmag.com)
  - › [www.copingmag.com/coping-with-cancer](http://www.copingmag.com/coping-with-cancer)

## **Organizations**

- Canadian Cancer Society
  - › Phone: 1-888-939-3333

**What are your questions?**

**Please ask. We are here to help you.**



## Online Cancer Resources

- Nova Scotia Cancer Care Program
  - › [www.nshealth.ca/cancer-care](http://www.nshealth.ca/cancer-care)
- Nova Scotia Health Authority's Cancer Care Program – Support Group Info
  - › <https://library.nshealth.ca/Cancer/Support>
- Canadian Cancer Society
  - › [www.cancer.ca](http://www.cancer.ca)
- Cancer Care Ontario
  - › [www.cancercare.on.ca](http://www.cancercare.on.ca)
- U.S. National Cancer Institute
  - › [www.cancer.gov](http://www.cancer.gov)
- Health Canada
  - › [www.hc-sc.gc.ca/index-eng.php](http://www.hc-sc.gc.ca/index-eng.php)
- CancerCare®
  - › [www.cancercare.org](http://www.cancercare.org)
- OncoLink® (Abramson Cancer Center of the University of Pennsylvania)
  - › [www.oncolink.org](http://www.oncolink.org)
- Division of Thoracic Surgery: University Health Network
  - › [www.uhn.ca/Surgery/patientsFamilies/Thoracic\\_Surgery](http://www.uhn.ca/Surgery/patientsFamilies/Thoracic_Surgery)
- Lung Cancer Canada
  - › [www.lungcancercanada.ca](http://www.lungcancercanada.ca)

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**Looking for more health information?**

Find this pamphlet and all our patient resources here: <http://library.nshealth.ca/PatientGuides>

Contact your local public library for books, videos, magazines, and other resources.

For more information, go to <http://library.novascotia.ca>

Connect with a registered nurse in Nova Scotia any time: call 811 or visit <https://811.novascotia.ca>

Learn about other programs and services in your community: call 211 or visit <http://ns.211.ca>

*Nova Scotia Health Authority promotes a smoke-free, vape-free, and scent-free environment.*

*Please do not use perfumed products. Thank you!*

[www.nshealth.ca](http://www.nshealth.ca)

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The information is not intended to be and does not constitute health care or medical advice.

If you have any questions, please ask your health care provider.

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The information in this pamphlet is to be updated every 3 years or as needed.