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P A T I E N T   I N F O R M A T I O N

# **Lumbar Spine Decompression With and Without Fusion**

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*Please pack this booklet with your belongings  
that you will bring to hospital. You will need to  
refer to this booklet after 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 for spinal surgery at The Ottawa Hospital. The purpose of this booklet is to provide you with information regarding your care during hospitalization, what to expect after discharge and how you can help the recovery process. **Your hospital stay is planned for two days after your surgery if you will not have a spinal fusion and four days after your surgery if you will have a spinal fusion.** Your doctor will have informed you if you will need a fusion or not.

### The Health Care Team

#### **Neurosurgeon or Orthopedic Surgeon**

Your Neurosurgeon or Orthopedic Surgeon and team of surgical residents will discuss all aspects of your care including, your surgery, recovery, and answer any questions you might have. Your neurosurgeon or orthopedic surgeon will oversee your care with the other health-care providers.

#### **Anesthesiologist**

The anesthesiologist will discuss anesthetic and pain control needs for your surgery on your pre-admission appointment.

#### **Registered Nurses**

The Registered Nurses will care for you before and after surgery. They will provide emotional support, teaching, medications, and nursing care. You may also receive care by patient care assistants. They will work with your nurse to assist with your care including baths, getting out of bed and going to the washroom.

#### **Physiotherapist**

The Physiotherapist (P.T.) will assist you in specific activities such as getting out of bed, walking and exercises that help you gain strength and movement following your surgery.

#### **Occupational Therapist**

The doctor may have the Occupational Therapist (O.T.) assess you as well. The O.T. will help you to become more independent with the activities of daily living and determine if you need special equipment or strategies that will help you when you go home.

#### **Social Worker**

The Social Worker may be asked to see you if the team feels you will require more resources upon discharge. You may also want to see the social worker if you have any discharge concerns. They will be able to assist you with your needs during your convalescence.

### **Physician Assistant**

The Physician Assistant (PA) will see you alongside your Orthopaedic Surgeon and team of surgical residents. They will be involved in discussing all aspects of your care and answering any questions that you may have.

### **Advanced Practice Nurse/Nurse Practitioner**

The Advanced Practice Nurse (APN)/Nurse Practitioner (NP)—works with both inpatients and outpatients at The Ottawa Hospital and can diagnose, treat illnesses, prescribe medications and order diagnostic tests. The NP's will see you alongside your Neurosurgeon and will be involved in all aspects of your care.

All team members involved will assist you with discharge planning if necessary.

Please be sure to keep and read this booklet as team members will refer to these instructions throughout your hospital stay. **Please bring your booklet to the hospital.**

**If you have been fitted for your back brace before surgery, please remember to bring your brace to the hospital on the morning of surgery. Label your brace with your name.**

## The Clinical Pathway

The health team has put together a clinical pathway to help plan your care. A clinical pathway outlines the day to day care during your hospital stay. This includes tests, treatments, activities and teaching. The outline of the clinical pathway for **spine surgery without a fusion** is on the next 2 pages, followed by **spine surgery with a fusion**. It is important for you to review it so you can participate actively in your recovery. If needed, this plan of care may be adjusted based on your condition.

<b>Clinical Pathway – Lumbar Spine Decompression Without Fusion</b>			
	<b>Pre-Admission</b>	<b>Day of Admission</b>	<b>Post-op on Day of Admission</b>
<b>Consults</b>	• Anesthesia		
<b>Tests</b>	• Blood tests		
<b>Medications</b>	• Review list of medications	• Antibiotics • Take usual medications except for diabetic medication	• Pain medication • Antibiotics • Patient specific medication • Intravenous therapy
<b>Assessment/ Treatments</b>			• Care of dressing, wound drain (Hemovac), vital signs, oxygen saturation, spinal assessments
<b>Activity</b>			• Dangle at bedside • Up to bathroom
<b>Nutrition</b>		• Follow the dietary instructions that were given to you on your Pre-Admission visit	• Nothing by mouth to full fluids after surgery
<b>Elimination</b>			• Urinary catheter removed
<b>Patient Teaching</b>	• Review clinical pathway instructions and patient booklet	• Review instructions for day of surgery	• Deep breathing and coughing • Positioning • Pain management • Ankle exercises • Diet
<b>Discharge Planning</b>	• Discuss length of stay and discharge plans	• Discuss length of stay and discharge plans	

<b>Clinical Pathway – Lumbar Spine Decompression Without Fusion</b>		
	<b>Post-op Day 1</b>	<b>Post-op Day 2 Day of Discharge</b>
<b>Consults</b>	<ul style="list-style-type: none"> <li>• Physiotherapist</li> </ul>	<ul style="list-style-type: none"> <li>• Health team members as appropriate</li> </ul>
<b>Tests</b>	<ul style="list-style-type: none"> <li>• Blood tests</li> </ul>	<ul style="list-style-type: none"> <li>• Blood tests if necessary</li> </ul>
<b>Medications</b>	<ul style="list-style-type: none"> <li>• Pain medication</li> <li>• Intravenous therapy</li> <li>• Antibiotics</li> <li>• Patient specific medications</li> </ul>	<ul style="list-style-type: none"> <li>• Pain management</li> <li>• Patient specific medications</li> </ul>
<b>Assessment/ Treatments</b>	<ul style="list-style-type: none"> <li>• Dressing, wound drain if indicated (Hemovac) vital signs, spinal assessments, oxygen saturation</li> </ul>	<ul style="list-style-type: none"> <li>• Wound drain (Hemovac) and dressing removed</li> <li>• Discharge assessments: <ul style="list-style-type: none"> <li>– home support</li> </ul> </li> </ul>
<b>Activity</b>	<ul style="list-style-type: none"> <li>• Log roll – Spine turn</li> <li>• Up in chair twice</li> <li>• Walk in hall twice</li> <li>• Ankle exercises</li> <li>• If Discectomy surgery, limit sitting to 20 minute intervals</li> </ul>	<ul style="list-style-type: none"> <li>• Log roll</li> <li>• Walk in hallway</li> <li>• Climb stairs</li> <li>• Ankle exercises</li> <li>• If Discectomy surgery, limit sitting to 20 minute intervals</li> </ul>
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>• Full fluids to regular diet as tolerated</li> </ul>	<ul style="list-style-type: none"> <li>• Regular diet</li> </ul>
<b>Elimination</b>	<ul style="list-style-type: none"> <li>• Up to bathroom</li> <li>• In and out urinary catheter if necessary</li> <li>• Bowel management</li> </ul>	<ul style="list-style-type: none"> <li>• Bowel management</li> </ul>
<b>Patient Teaching</b>	<ul style="list-style-type: none"> <li>• Deep breathing and coughing</li> <li>• Ankle and leg exercise</li> <li>• Log roll and spinal positioning</li> <li>• Activity</li> <li>• Wound care</li> <li>• Bowel management</li> </ul>	<ul style="list-style-type: none"> <li>• Deep breathing and coughing</li> <li>• Ankle and leg exercise</li> <li>• Log roll and spinal positioning</li> <li>• Activity</li> <li>• Wound care</li> <li>• Bowel management</li> <li>• Complications</li> <li>• Prescription</li> </ul>
<b>Discharge Planning</b>	<ul style="list-style-type: none"> <li>• Confirm discharge plans or alternate arrangements</li> <li>• Equipment rental if needed</li> </ul>	<ul style="list-style-type: none"> <li>• Discharge home or alternate location</li> <li>• Follow-up appointments</li> <li>• Prescription</li> </ul>

The following clinical pathway is for patients who have had spine surgery with a fusion. This length of stay is 4 days following the day of surgery.

<b>Clinical Pathway – Lumbar Spine Decompression With Fusion</b>			
	<b>Pre-Admission</b>	<b>Day of Admission</b>	<b>Post-op on Day of Admission</b>
<b>Consults</b>	<ul style="list-style-type: none"> <li>Anesthesia</li> </ul>		
<b>Tests</b>	<ul style="list-style-type: none"> <li>Blood tests</li> </ul>		
<b>Medications</b>	<ul style="list-style-type: none"> <li>Review list of medications</li> </ul>	<ul style="list-style-type: none"> <li>Antibiotics</li> <li>Take usual medications except for diabetic medication</li> </ul>	<ul style="list-style-type: none"> <li>Pain medication</li> <li>Antibiotics</li> <li>Patient specific medication</li> <li>Intravenous therapy</li> </ul>
<b>Assessment/Treatments</b>			<ul style="list-style-type: none"> <li>Care of dressing, wound drain (hemovac), vital signs, oxygen saturation, spinal assessments</li> </ul>
<b>Activity</b>			<ul style="list-style-type: none"> <li>Bedrest, log roll</li> </ul>
<b>Nutrition</b>		<ul style="list-style-type: none"> <li>Follow the dietary instructions that were given to you on your Pre-Admission visit</li> </ul>	<ul style="list-style-type: none"> <li>Clear to full fluids after surgery</li> </ul>
<b>Elimination</b>			<ul style="list-style-type: none"> <li>Urinary catheter</li> </ul>
<b>Patient Teaching</b>	<ul style="list-style-type: none"> <li>Review clinical pathway instructions and patient booklet</li> </ul>	<ul style="list-style-type: none"> <li>Review instructions for day of surgery</li> </ul>	<ul style="list-style-type: none"> <li>Deep breathing and coughing</li> <li>Positioning</li> <li>Pain management</li> <li>Ankle exercises</li> <li>Diet</li> </ul>
<b>Discharge Planning</b>	<ul style="list-style-type: none"> <li>Discuss length of stay and discharge plans</li> </ul>	<ul style="list-style-type: none"> <li>Discuss length of stay and discharge plans</li> </ul>	

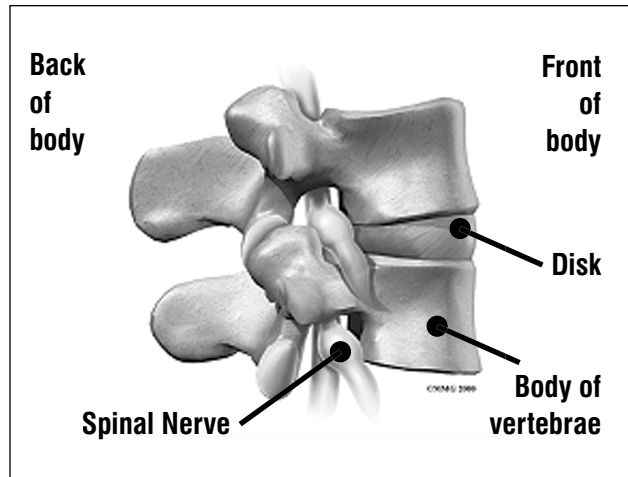


<b>Clinical Pathway – Lumbar Spine Decompression With Fusion</b>		
	<b>Post-op Day 1</b>	<b>Post-op Day 2</b>
<b>Consults</b>	<ul style="list-style-type: none"> <li>• Physiotherapist</li> </ul>	
<b>Tests</b>	<ul style="list-style-type: none"> <li>• Blood tests</li> </ul>	
<b>Medications</b>	<ul style="list-style-type: none"> <li>• Pain medication</li> <li>• Intravenous therapy</li> <li>• Antibiotics</li> <li>• Anticoagulants</li> <li>• Patient specific medications</li> </ul>	<ul style="list-style-type: none"> <li>• Pain medication – pills</li> <li>• Anticoagulants</li> <li>• Patient specific medication</li> </ul>
<b>Assessment/Treatments</b>	<ul style="list-style-type: none"> <li>• Dressing, wound drain (Hemovac) vital signs, spinal assessments, oxygen saturation</li> </ul>	<ul style="list-style-type: none"> <li>• Vital signs, spinal assessments</li> <li>• Wound drain (Hemovac) and dressing removed</li> </ul>
<b>Activity</b>	<ul style="list-style-type: none"> <li>• Log roll</li> <li>• Head of bed maximum 30° without brace</li> <li>• Dangle at bedside</li> <li>• Up in chair with brace @</li> <li>• Ankle exercises</li> <li>• Walk in hallway</li> <li>• If Discectomy surgery, limit sitting to 20 minute intervals</li> </ul>	<ul style="list-style-type: none"> <li>• Log roll</li> <li>• Up in chair with brace for meals; walk in hallway</li> <li>• Ankle exercises</li> <li>• If Discectomy surgery, limit sitting to 20 minute intervals</li> </ul>
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>• Full fluids to regular diet as tolerated</li> </ul>	<ul style="list-style-type: none"> <li>• Regular diet</li> </ul>
<b>Elimination</b>	<ul style="list-style-type: none"> <li>• Catheter out</li> <li>• In and out urinary catheter if necessary</li> <li>• Bowel management</li> </ul>	<ul style="list-style-type: none"> <li>• Up to the bathroom</li> <li>• In and out urinary catheter if necessary</li> <li>• Bowel management</li> </ul>
<b>Patient Teaching</b>	<ul style="list-style-type: none"> <li>• Deep breathing and coughing</li> <li>• Ankle and leg exercises</li> <li>• Log roll and spinal positioning</li> <li>• Applying the brace</li> <li>• Activity</li> <li>• Wound care</li> <li>• Bowel management</li> </ul>	<ul style="list-style-type: none"> <li>• Deep breathing and coughing</li> <li>• Ankle and leg exercises</li> <li>• Log roll and spinal positioning</li> <li>• Applying the brace</li> <li>• Activity</li> <li>• Wound care</li> <li>• Bowel management</li> </ul>
<b>Discharge Planning</b>	<ul style="list-style-type: none"> <li>• Review discharge plans</li> </ul>	<ul style="list-style-type: none"> <li>• Review discharge plans</li> <li>• Assess support needed</li> </ul>

<b>Clinical Pathway – Lumbar Spine Laminectomy With Fusion</b>		
	<b>Post-op Day 3</b>	<b>Post-op Day 4 — Day of Discharge</b>
<b>Consults</b>	<ul style="list-style-type: none"> <li>• Health team members as appropriate</li> </ul>	
<b>Tests</b>	<ul style="list-style-type: none"> <li>• Blood tests if necessary</li> </ul>	
<b>Medications</b>	<ul style="list-style-type: none"> <li>• Pain management</li> <li>• Patient specific medications</li> </ul>	<ul style="list-style-type: none"> <li>• Pain management</li> <li>• Patient specific medications</li> </ul>
<b>Assessment/ Treatments</b>	<ul style="list-style-type: none"> <li>• Brace</li> <li>• Wound</li> <li>• Home support — if needed</li> </ul>	<ul style="list-style-type: none"> <li>• Discharge assessments</li> <li>• Brace</li> <li>• Wound</li> <li>• Home support — if needed</li> </ul>
<b>Activity</b>	<ul style="list-style-type: none"> <li>• Up with brace</li> <li>• Walk in hallway with or without walker or cane</li> <li>• Climb stairs</li> <li>• Ankle exercises</li> <li>• If Discectomy surgery, limit sitting to 20 minute intervals</li> </ul>	<ul style="list-style-type: none"> <li>• Up with brace</li> <li>• Walk in hallway with or without walker or cane</li> <li>• Climb stairs</li> <li>• Ankle exercises</li> <li>• If Discectomy surgery, limit sitting to 20 minute intervals</li> </ul>
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>• Regular diet</li> </ul>	<ul style="list-style-type: none"> <li>• Regular diet</li> </ul>
<b>Elimination</b>	<ul style="list-style-type: none"> <li>• Up to the bathroom</li> </ul>	<ul style="list-style-type: none"> <li>• Up to the bathroom</li> </ul>
<b>Patient Teaching</b>	<ul style="list-style-type: none"> <li>• Deep breathing and coughing</li> <li>• Foot and ankle exercise</li> <li>• Log roll and spinal positioning</li> <li>• Activity</li> <li>• Wound care</li> <li>• Bowel management</li> </ul>	<ul style="list-style-type: none"> <li>• Brace application</li> <li>• Activity</li> <li>• Wound care</li> <li>• Suture removal plan</li> <li>• Bowel management</li> <li>• Prescription</li> <li>• Complications</li> </ul>
<b>Discharge Planning</b>	<ul style="list-style-type: none"> <li>• Confirm discharge plans or alternate arrangements</li> <li>• Possible discharge if criteria met</li> </ul>	<ul style="list-style-type: none"> <li>• Discharge home or alternate location</li> <li>• Follow-up appointments</li> <li>• Prescription</li> </ul>

## The Spine

The spine (backbone) is a series of bones called vertebrae, stacked one upon the other. Between the vertebrae are discs that cushion and help support the bones and allow some movement of the spine. The spinal cord runs through an opening in the center of the vertebrae. The spinal nerve roots connect the spinal cord to various parts of the body and exit above and below the vertebrae at each side. Sometimes due to aging, injury or disease the alignment or shape of the vertebrae is changed, causing a narrowing of the opening of the canal. This causes pressure on the nerves which, in turn, causes pain. In time, this pressure will cause numbness or tingling, muscle weakness and increased pain.



## Spine Surgery

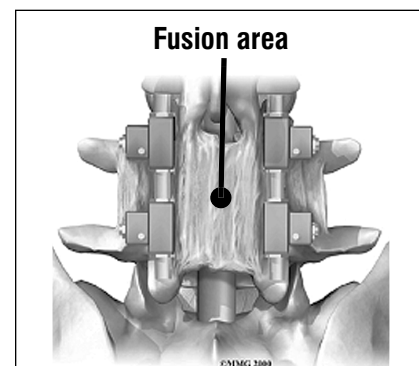
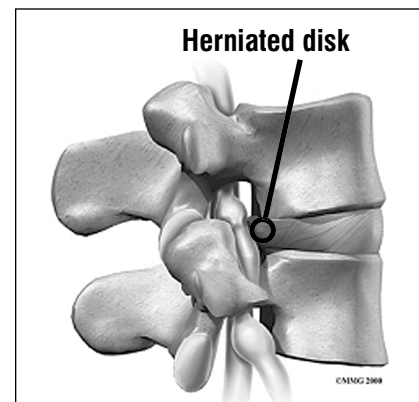
Spine surgery is done for many reasons. Discs and vertebrae can become damaged due to aging, injury or disease with resulting pressure on the nerves. Pressure on the nerves in the back may cause pain in the back or down the leg(s). There may also be numbness, tingling and or weakness in the leg(s).

### Lumbar Laminectomy

Lumbar laminectomy is a procedure where the back of the spinal canal is removed by cutting the lamina (the back portion of the vertebral bone) to provide more space for the spinal cord and nerve roots.

### Spinal Decompression

A spinal decompression is an operation to relieve pressure on the particular nerves causing the symptoms. The whole disc that is causing the pressure may be removed, or only part of it. Your physician will discuss with you the extent of your surgery.



If several levels of vertebrae are operated on, the doctor may do a spinal fusion to join together two or more vertebrae. This is called a decompression with spinal fusion. Small shavings of bone which may be taken from your hip, or obtained from a “bone bank” are placed along the area of your spine which is being fused. The doctor may use small metal screws or plates to steady the spine while the bones knit together. Your physician will discuss with you the extent of your surgery.

The surgery is performed under a general anaesthetic and the length of time it will take will vary according to what type of surgery you are having. It may take 2 to 5 hours. You will have an incision on your back that is about 4 to 5 inches long.

**If your doctor prescribed a brace, please make the arrangements for brace fitting prior to surgery.** Be sure to bring your brace with you to hospital on the day of your surgery. Be sure your name is on your brace. After your surgery, the brace will always be put on before you get out of bed and removed after returning to bed. This will be very important for your back.

## Preparing for Surgery

### Obtaining the Spinal Brace

- Based on the type of surgery, you may be required to wear a brace or corset to help stabilize your spine during the healing process. The purpose of the brace is to restrict movement by holding your spine straight. **You must wear it to protect your back at all times except when you are lying in bed, unless specified by the doctor.**
- You will receive a prescription from the physician for your brace and information regarding the company to contact regarding the fitting. Braces are available by contacting AMPOS Orthopaedics at 613-745-3173.
- The cost varies with the type of brace you need. You are responsible for purchasing the brace. Partial reimbursement may be available through private extended health insurance, social assistance or Workman’s Safety Insurance Board (W.S.I.B.). The brace is not covered under O.H.I.P. Low income families may receive financial assistance from the Essential Health and Social Support Program. The phone number is 613-560-6000. The social worker may be able to assist you with these options or other resources.

### Neurosurgery Clinic Visit (if appropriate)

Your neurosurgeon may want you to see the nurse in the neurosurgery clinic after the decision has been made for you to have the surgery. The nurse will provide you with information about your surgery.

If not, you will receive the information when you go to the Pre-Admission Unit.

### **Refrain from smoking**

- Tobacco in any form should be avoided. This includes pipes, cigars, regular and low tar cigarettes and chewing tobacco. Even one or two cigarettes a day are harmful. Smoking damages the lines of the arteries, and therefore increases the risk of arteriosclerosis. Smoking will also decrease the rate of **bone healing** and may affect the total benefit of your spinal surgery. Smokers should know it is never too late to benefit from quitting. Smoking places you at risk for lung complications after surgery. Contact the University of Ottawa Heart Institute: Prevention and Rehabilitation Centre Heart Check Smoking Cessation Program at 613-761-4753 or [www.ottawaheart.ca](http://www.ottawaheart.ca).

**Before coming into the hospital, make arrangements for any help that you might need at home after surgery.**

## **On the Day of Surgery**

- **Do not drink alcoholic beverages twenty-four (24) hours before surgery.**
- **You can continue to take your usual pain medication with a sip of water and remember to report this to the nurse when you arrive at the hospital.**
- **If you have been instructed to take other usual medication (such as your blood pressure pills or heart pills) on the morning of surgery, you may with a sip of water.**
- Bring in home and work telephone numbers of spouse/relative/or person who will be helping you, so they can be contacted if needed.
- Bring in comfortable well fitting shoes (i.e., running shoes) or slippers with a non-slip sole and closed heel and toes.
- **Bring in your brace when you come for surgery or have a family member or friend bring in the brace later in the day. Please ensure it is labeled with your name.**
- Bring pants/shorts with elastic waist band that can be pulled up.
- Bring short dressing gown that opens completely in the front.
- Refer to your clinical pathway so you and your family know what is to be expected on a daily basis.

## **After Surgery**

Following surgery you will awaken in the Post Anesthetic Care Unit (PACU) where you will stay until your surgeon and your nurse feel you are ready, then you will be transferred to the ward.

### **Assessments**

You will be checked frequently by the nurse to ensure that you are comfortable and progressing well. The nurse will ask you about movement and sensation to your legs. She will test the strength in your leg muscles and test your sensation with a sharp object to ensure your function is the same after surgery. Your heart rate, blood pressure, and back dressing will also be checked. You may also have a small drain called a hemovac to eliminate excess blood from the operative site. The nurse will monitor the amount of drainage.

### **Intravenous**

You will have an intravenous (I.V.) until you are able to eat and drink again.

### **Oxygen**

Oxygen is carried throughout the body by the bloodstream to the tissues. The body may require extra oxygen under certain conditions like lung disease, heart disease or surgery. Extra oxygen helps to restore normal oxygen levels in the blood and body tissues to reduce the workload of the heart and lungs. Extra oxygen is given through a mask placed over your nose and mouth or by small tubes placed in your nostrils. The amount of oxygen in your blood is measured painlessly by pulse oximetry. A small clip on your finger determines if you are getting the right amount of oxygen. The nurse will increase, or decrease the amount of oxygen based on her assessment and eventually discontinue the oxygen when appropriate. Please do not discontinue yourself.

### **Moving and Positioning**

The nurse, patient care assistant/orderly and physiotherapist will assist you with moving and proper positioning.

## **Log-rolling and Positioning**

- **If you require a brace:**

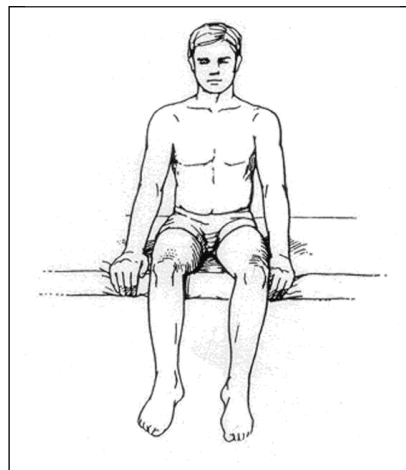
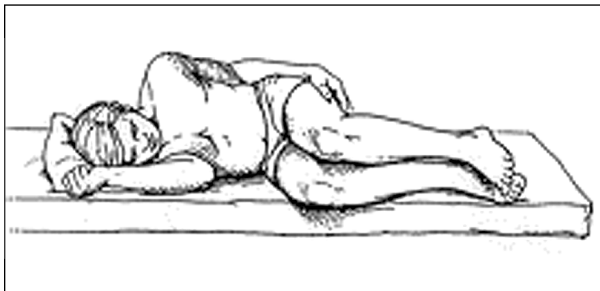
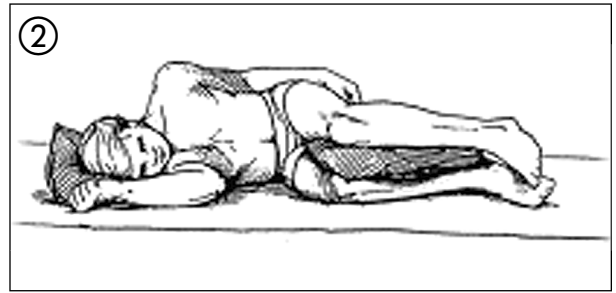
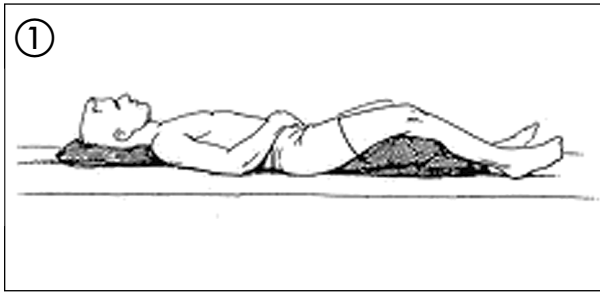
- While in bed, the head of your bed should be only slightly elevated to about 30°. If you need to sit up higher than 30°, you will need to apply your brace, unless the doctor orders differently.
- When turning from side to side, with or without assistance, be sure to keep your back straight and have your shoulders aligned with your hips. See picture #2. Put a pillow in between your leg to keep your top leg aligned with your hip. Turn as a unit (log-roll), keeping your back straight. Do not twist or bend. This helps the recovery process in the operative area. This is a good technique to always use when getting out of bed at home. When in bed, if you lie on your back, support your spine with a pillow under your knees. See picture #1.

## **Getting Out of Bed**

You will be taught how to get out of bed, which avoids straining or twisting your back, if required you will be assisted to put on your brace first. The correct way is described as follows and seen in pictures 3, 4 and 5.

- Bend your knees.
- Roll onto your side. Lower your legs over the edge of the bed while using your arms to push yourself up into a sitting position.
- When sitting, keep your hands on the bed to support your back. Once in the sitting position, take a few breaths and ensure your balance is good before attempting to stand.
- Slide your bottom to the edge of the bed.
- Stand up keeping your back as straight as possible.
- You may find that getting up on one side is easier than the other. Nursing and physio staff will assist you in getting out of bed until you can be independent.
- When getting back into the bed, reverse the process.
- Continue to use this method of getting in and out of bed as it maintains good spine alignment.

### Getting out of bed with brace (brace not shown in picture)



### Pain Management

Your comfort is our concern. It is important that you have effective pain relief. Pain is personal. The amount of pain you feel may not be the same as others feel, even for those who have had the same surgery. Our goal is to help you be comfortable enough to participate in the healing process. Your pain should be controlled enough that you can rest comfortably and that the pain does not prevent you from deep breathing, coughing, turning, or getting out of bed.



Both drug and non-drug treatments can be successful in helping prevent and control pain. The most common pain control treatments for after surgery are described in the Pain Management after Surgery booklet. You, your doctors and your nurses will decide which ones are right for you to manage your pain. Please read the booklet before your surgery. Bring it to the hospital on the day of your surgery.

You may have a pump with medicine attached to your intravenous to help control your pain. The pump allows you to obtain medicine when you need it by pressing the white button on the handset. The medication works very quickly. Press the button as soon as the pain starts, or if you know your pain will worsen when you start walking or doing breathing exercises, take the medicine before you start your activity. **It is important that you only take the medicine when you need it. Do not permit family or friends to push the handset for you.**

The doctors and nurses will ask you to rate how much pain you are having on a scale of 0 (no pain) to 10 (severe pain). Reporting your pain as a number helps the care providers know how well your medicine is working and whether to make changes. Tell the doctors and nurses if you are experiencing side effects from the pain medicine such as nausea or feeling drowsy.

You will be encouraged to get up and move about with the pain pump, which is attached to a pole. The pump will operate on a battery when not plugged in. The day after surgery or a couple of days after surgery—depending on the type of surgery, the nurses will begin to take you off the pump and start you on medications by mouth.

### **Deep Breathing and Coughing**

After surgical procedures, anesthesia or because of pain, we tend to take smaller breaths. Deep breathing and coughing exercises after surgery will help keep your lung healthy. It is also useful to keep your lungs clear of phlegm while you are less mobile than normal. Take 5 deep slow breaths, in by your nose and out through the mouth, expanding your lungs as much as possible. Follow this with a strong cough. Repeat every hour when possible.

### **Ankle Exercises**

These exercises help the blood circulate in your legs while you are less mobile. Do these ten (10) times each hour, while you are awake and until your activity level increases.

With your legs on the bed:

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

## **Preventing Blood Clots**

After surgery and until you are up and moving on a regular basis, you are susceptible to having a blood clot form in your legs. Decreasing the risk of a blood clot starts with getting up and walking as much as possible. You will also be able to reduce the risk by doing the above mentioned ankle exercises. In some cases, the physician will order you a small dose of anticoagulants that also assist in preventing blood clots.

## **Preventing a Urinary Tract Infection**

- You may have a catheter draining urine from your bladder depending on the surgery it will be removed either the day of surgery or the first day after surgery. When you are allowed to drink fluids, you should drink about 8 glasses of water per day to maintain an adequate fluid balance.
- For women, remember to wipe yourself from the front to back after going to the bathroom.
- Watch for cloudy, foul smelling urine; burning when urinating or urinating only small amounts frequently. If any two of these occur, inform your nurse while in hospital or check with your family doctor about a bladder infection if this occurs when at home.

## **Preventing Constipation**

After surgery, it is easy to become constipated while in hospital and at home due to immobility and some pain medications.

Try to follow these helpful hints to prevent this:

- Drink plenty of fluids—eight glasses per day is recommended. Limit coffee and tea intake and drink fruit juices.
- Eat a variety of foods, e.g., fruits, vegetables, meat, poultry, dairy products.
- Include adequate fibre in your diet. Fibre may be found in natural bran, oats, legumes (chick peas, kidney beans and lentils) prunes, green peas and raisins.
- Keep as active as is possible. Try to exercise every day. Initially your activity will be less after surgery. Continue to try to improve your tolerance and frequency as this helps minimize constipation.
- Avoid overuse of laxatives. Studies have found that with proper diet, including lots of fluids, normal bowel function can improve.
- Pay attention to the “urge” to go to the bathroom. This helps to establish a regular bowel routine.
- Remember to communicate with the nurse daily regarding your bowels, they can help to establish a bowel routine or implement solutions to constipation.
- Be sure to speak to the nurse about any constipation as you may need some medication to assist you.

## Brace Care

If you have a brace: the doctor, nurse or physiotherapist will point out the type of brace you have. Your nurse, physiotherapist or occupational therapist will teach you how to put the brace on by yourself or with a caregiver. If you receive your brace before surgery, practice putting it on and taking it off to become more familiar with it.

### General Rules about all Braces

- Your brace should be fitted before surgery if possible. It can also be fitted after surgery. Be sure to bring your brace with you to hospital on the day of surgery.
- When in bed, the head of the bed should not be any higher than 30°. If you need to sit up straight in bed, then you must have your brace on.
- **Do not get out of bed without your brace. This lessens the chance that you may twist and turn your back and therefore reduce the chance of healing properly in the operative area.**
- **The nurse or physiotherapist will teach you how to put your brace on.**
- **Always apply or remove the brace when lying down in bed.**
- All braces should be worn over a clean undershirt or cotton T-shirt. Cotton helps to absorb body moisture. Change the T-shirt daily. You may want to practice putting on a T-shirt while lying down in bed prior to your surgery. You will need to put on and take off your T-shirt when you are lying down.
- Check your skin daily for any areas of redness where the brace may be rubbing. Contact the agency or person who made your brace if at home.
- You may require help to put your brace on and off after you leave the hospital. (Some people will always need assistance.) You should make arrangements for a family member or friend to help you until you can do this yourself. They can be taught by the staff prior to your going home if needed.

### Ask the nurse to call the company that made the brace if:

- It pinches the skin.
- It causes skin irritation.
- There are no gaps between the front part of the brace and the back part of the brace.
- The curves are in the wrong place.
- When wearing a Thoraco-lumbo Sacral Orthosis (TLSO) brace, you have enough movement to make large turns of your spine.
- You have lost a lot of weight since the brace was initially fitted.

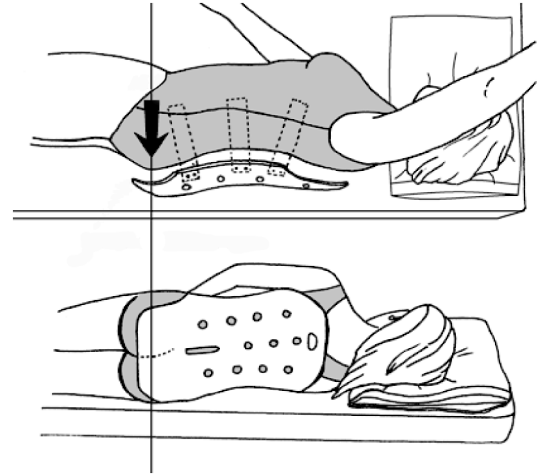
## Here is some information about the different types of braces:

### Thoraco-lumbo Sacral Orthosis Brace (T.L.S.O.)

The bi-valved rigid TLSO (Clam Shell) is designed to restrict all motion of the mid and lower spine. It is a custom molded shell with/without a soft polyethylene lining and fastened together with velcro straps.

Putting on the brace:

- Put the back section of the brace on first.
- Log roll onto your side.
- Position the bottom of the brace about 1 inch below the midpoint of your bum.
- Put the brace across your back while lying on your side so most of it is under you.
- Roll onto your back and check to see that the brace is even on both sides and not tilted. Avoid lifting your hips to re-center the brace.
- Place the front of the brace on. It should be low enough so that the belly is covered as much as possible. The brace will ride up once it is on so it needs to be put on low in the beginning. Make sure straps on the back line up with the straps on the front.
- If you have a large abdomen, lift the abdomen so that the brace does not push it lower than normal. For women with large breasts, make sure the breasts are in place so the curves are in keeping with the shape of the brace.
- Do up the straps from the bottom to the top, loosely at first, then pull tight. You should be able to breathe normally but not be able to take a deep breath.
- When sitting, the brace should be on the top of the thighs, and the back of the brace should be about 1 inch above the seat of a firm chair.
- When standing, the back section should be at the end of the height of the curve of the backside, and the midline should be within 1 inch of either side of the spine. If not, re-apply the brace.
- There should be a gap between the front and the back section on the side. If these sections touch on both sides, the brace needs to be adjusted. Call the company who provided the brace, to have this arranged.
- To take the brace off—lie flat, undo the velcro straps, remove the front section first. Log roll on to your side, and then slide out the back section.
- The brace must be worn during a shower. Prior to putting the brace on, lay a large plastic bag against your back. Have the plastic bag positioned so that it will eventually come over the brace. Roll to the side and then put the brace on over the plastic bag. Put another plastic bag against your skin on your chest and apply the front portion of the brace. Once the brace has been strapped together, pull the plastic over top of the brace to make it waterproof.



- After the shower, lie down, remove the brace, and let air dry for 15 to 30 minutes. Showering at night is best so the brace can dry overnight.
- Have someone wash the brace at least once per week. Use mild soap, water and scrub brush or a washcloth; rinse soap residue completely. After cleaning, towel dry and let stand for 15 to 30 minutes.

### **Lumbo-Sacral Orthosis Brace (LSO)**

The lumbo-sacral brace is designed to restrict motion of the lower spine as well as increase intra-abdominal pressure. It is made of wide elastic canvas, and has a plastic piece inserted in the back section. The brace is placed with the canvas and openings to the front and the plastic piece to the back. You will need to be measured to determine the proper height and contour needed. The brace is worn over a T-shirt and is applied while you are in bed.

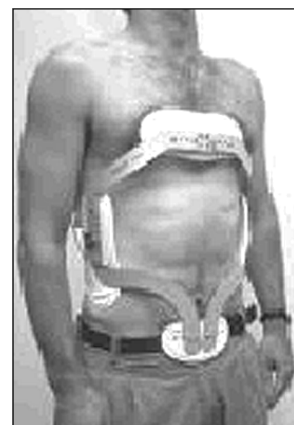
- To put it on, roll onto your side and position the back side of the brace about 1 inch below the mid point of the top crease of the buttocks and across most of the back.
- Roll onto back and check to see if the brace is even on both sides. If not, turn over again and readjust brace. Never lift the hips to re-align the position.
- Do up the straps from the bottom to the top. Re-tighten the straps so you can breathe normally but not be able to take a deep breath.
- In sitting position, the brace should be even. The bottom part of the brace should be touching the thighs and the top part is just below the breastbone (sternum).
- The centerline of the brace should be within 1 inch of the spine. If not, re-position.
- Cover the brace with plastic bags prior to showering as described in the TLSO section.

The brace and straps can be hand washed if soiled.

### **Jewett Brace**

The Jewett brace is a lightweight aluminum frame that sits at the front of the body. It has supportive pads on the front and back for comfort. The brace is put on and taken off while lying in a flat position in bed to ensure the spine is kept straight.

- Roll on your side and slide the back part of the brace under your back. Roll onto your back and place the top part of the frame approximately 2 to 3 inches below the neck.
- The brace is then tightened on the side so that the chest pad of the brace can be pushed/pulled away a distance of 2 finger widths from your chest in a standing position.

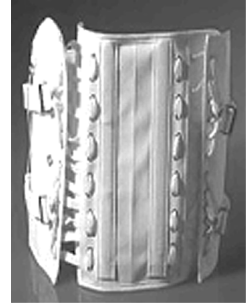


When wearing the Jewett, sit in a good chair with arm support. Avoid a soft sofa or bench without a back. If you are to shower with the Jewett on, remove it once in bed. Showering at night is best so your brace can dry over night. Have a family member wipe the brace with soap and wash cloth, rinse and towel dry.

### **Lumbo-Sacral Corset/Mold**

The lumbo-sacral corset is a fabric garment with metal or plastic inserts. The closure hooks are on the front. The corset is worn over a T-shirt and is put on in bed. The corset is hand-washed and is laid flat to dry overnight. The metal stays are not removed for washing. You should not wear the corset while in the shower.

- Roll onto your side to put the back part of the corset on, and then roll onto your back to do it up.



## **Activity While in Hospital**

***Note: If you have a lot of drainage from your incision, you may need to stay in bed. Please follow any specific instructions provided to you by your Physician.***

### **Without Fusion:**

- On the day of surgery, if you've not had a fusion the nurse will assist you to sit up at the side of the bed and assist you to the bathroom as necessary.
- With assistance you should turn from side to side (log-roll) frequently. You should not lie on your back. The nurse will put a pillow behind your back for support and between your knees to support your hip level to your back.
- On Day 1 you will be assisted out of bed by the physio/nurse into a chair for about 20 minutes and you may get up again if tolerated. The physio/RN will assist you to walk in the hallway as needed. Be sure to continue with your ankle exercises.
- On Day 2, you will be supervised to walk in the hall. Continue to build up strength and endurance by continuing to get up frequently for short periods. You should be able to sit in the chair for all meals and be able to get up to the bathroom.
- By day 3, you will be ready to go home. The physiotherapist will supervise you in climbing stairs.

### **With Fusion:**

- On the day of surgery, if you've had a fusion, you will remain on bed rest and be turned from side to side (log-roll) frequently. You should not lie directly on your back. The nurse will put a pillow behind your back for support and between your knees to support your hip level to your back.
- On Day 1 after putting on your brace you will be assisted out of bed by the physiotherapist, nurse or patient care assistant/orderly and helped into a chair.

- On Day 2 you will be assisted to walk in the hall.
- On Day 3 you may still need assistance in walking and you should be up at least twice or three times during the day, for meals is best. The physiotherapist will assist you in climbing stairs.
- On Day 4 continue to build up strength and endurance by continuing to get up frequently and walking in the hallway as much as possible.
- On Day 5 you will be ready to go home, and will continue your recovery there.

### **Activity: Guidelines**

- If you have had a Discectomy surgery, you should limit sitting to 20 minute intervals for 4 to 6 weeks after surgery or as directed by your Physician.
- Don't overdo it. You should gradually increase your activity. Bursts of activity will only cause discomfort and muscle spasm and slow your progress.
- Stop any activity that causes increased discomfort or aggravates symptoms.
- When walking, wear flat, well-supporting shoes. Always wear your brace when up.
- You may find it difficult to lie flat on your back after surgery. This is usually due to some discomfort in the incision area and it will settle.
- Your doctor will advise you regarding the length of time required for you to recover at home before starting back to work and for driving. This varies with every patient.
- Increase your walking distance slowly. Avoid rough ground and try to walk on level surfaces initially.
- A common cause of back discomfort after surgery is overdoing activities, or staying in one position for too long (especially when driving long distances). Therefore frequently alter positions and if driving, stop and walk around the car every 45–60 minutes.

### **Fatigue**

Fatigue may be common after surgery. You will need to pace your self and make sure you have lots of rest periods during the day. In order to make a good recovery, it is important that you continue to be up walking and gradually increase your activity levels and ensure proper hydration and nutrition to provide energy.

### **Activities of Daily Living**

Here are some helpful tips in managing your day to day care:

### **Occupational Therapy After Spinal Surgery**

Your doctor may have an occupational therapist (O.T.) see you before or after your surgery. The O.T. will help you to solve problems you may be having with your activities of daily living such as bathing or dressing and can teach you ways to make these tasks easier. If you need assistive devices and strategies for managing care at the home, the O.T. can help you.

### **Sitting**

- It is easier if you sit on a firm cushioned chair with a straight back and armrests.
- Keep your knees at the same height as your hips to prevent back strain. Armrests will make it easier to get up.
- If you have had a Discectomy, you should limit sitting up to 20 minute intervals initially until otherwise specified by your surgeon.

### **Getting Dressed**

- If you require a brace: put on your T-Shirt before putting on your brace.
- Sit on the side of your bed or in a chair.
- If you are having difficulty reaching your feet to put on your pants, socks or shoes, you may benefit from a device such as a dressing stick, sock aid, long shoe horn or elastic shoe laces.

### **Toilet/Commode**

- You may need a raised toilet seat with arms or commode after your surgery these can be rented or purchased from a home health store.
- Back up to the toilet until you feel the back of your legs touching it. Reach back for the armrests and slowly lower yourself down.
- Reverse the procedure to get up, pushing up from the armrests.
- If you are having difficulty reaching behind you while toileting, your O.T. may be able to suggest strategies which can help.

### **Shower**

- If you have had a fusion, you should not take a bath or shower until your Physician says it is okay.
- Unless otherwise advised, when your dressing has been removed and there is no drainage from your incision, you may shower.
- If you require a brace: Leave your brace on when showering. It is recommended that you shower in the evening so your brace can dry overnight when you are in bed.
- Pat your incision dry, avoid touching it too much and never rub the incision as this can push bacteria into the wound and cause an infection.
- Do not take a bath with the water over the incision until it is well healed. Getting out of the bathtub may also put added pressure on your incision.
- Be sure to put a rubber mat in the tub/shower stall to prevent a fall.
- You may want to consider installing a grab-bar as well as using a bath seat and a hand-held shower to increase safety during showering.



### **Car Transfer**

- Move the front seat of the car back as far as possible. You may find it easier if you place a cushion on the car seat as this helps to make it higher and increase comfort.
- Roll the window down all the way. Back up to the car. Place one hand on the window ledge and the other hand on the back of the seat. Then lower yourself slowly to the seat and turn to face the front.

### **Homemaking**

- Resuming homemaking activities may be difficult at first. It may be helpful to have family/friends help with cooking, cleaning, laundry, housework, and grocery shopping until you are ready to resume these activities.
- Carry hot liquids in containers with covers.
- Sit at the kitchen table when doing counter tops tasks.
- Use a reacher to grab objects on the floor. Be careful of electrical cords.
- Avoid vacuuming.
- Do only what you can and, take frequent breaks. Over doing it can prolong the healing time.

## **Discharge Planning for Going Home**

- Your estimated time in hospital is 2 to 4 days after the day you had your surgery. You will still need to convalesce at home for 6 weeks or longer, however, unless there is a medical reason to remain in hospital, plan your discharge for the 4th day after surgery.
- Consider what arrangements you might need when you go home. You may want to discuss this with your family and friends.
- You may need some help at home (help with brace, homemaking etc.). Please make the arrangements prior to coming into hospital. If you have any concerns regarding going home, you may speak to a social worker.
- If you think you will have problems at home, or will need any equipment, discuss them with your nurse, the physiotherapist, the Occupational Therapist or the Neurosurgery Liaison Nurse.
- Arrange for someone to pick you up by 10:00 a.m. on the day of discharge. You will receive a follow-up appointment to see the doctor and a prescription for medication before leaving.

- On discharge, **be sure you understand about:**
  - Your medications including any new ones.
  - Your exercise program.
  - Your diet.
  - Any restrictions to your activity.
  - When to call the doctor.
  - How long you will be required to wear the brace if applicable.

## **Discharge Instructions**

### **Medications**

- Be sure to clarify your medications prior to going home with the nurse. If you have further questions, you may speak to the unit pharmacist.
- If there have been changes to your regular medications while in hospital, please have your local pharmacy re-label your medications. It is important you always have a correct list of current medications. You should add herbal medications to your home list.
- If applicable you will be given a prescription, which can be filled at any pharmacy. Be sure to take these medications only as prescribed.
- You will be sent home with a prescription of pain medications. You will find your need for pain medication reducing over the next 2 weeks. You may want to increase the space of time you take your medications at first. For example if taking a pain medication every 4 hours, consider reducing the time to every 6 hours. The goal is to take as little as possible to keep you comfortable and enable you to do the activities of daily living.
- It is important for you to continue to maintain activity during your convalescence. Take medication, if necessary prior to the activity so you can still perform the activity rather than letting the pain get out of control.

### **Suture Removal Plan**

- The dressing will be removed so the incision can be inspected prior to discharge. There is no need to cover the incision unless there is some discharge or the area is irritated by clothing. A loose comfortable shift or blouse will help avoid irritation.
- You will have either absorbable sutures in place or staples. The sutures will absorb over time and are not removed. If you have staples in place, then you will be discharged with instruction to have them removed by your family physician or at the follow-up clinic. Please be sure of your plan prior to leaving hospital. You may phone your family doctor prior to leaving the hospital to make this appointment. This is your responsibility. Please ensure that the doctor has a staple remover. If not, ask your nurse for one prior to leaving.

### **Positioning and Exercises**

- If required, put your brace on and remove it while lying flat unless otherwise instructed by your doctor.
- Sleep on a firm mattress.
- Continue with your exercise program at home as instructed.
- Keep exercise periods short, but frequent to reduce fatigue.
- Avoid sitting for more than one hour without standing for a break.
- Continue to roll as a log, and get up out of bed from a side position.
- Avoid any heavy lifting. Check with your doctor as to what is reasonable given your strength and type of surgery. When picking things up from the floor, bend the knees to lower yourself. Do not bend from the waist. Use a reacher which is a piece of equipment that will reach things for you.
- Discuss with your doctor about resuming sexual activities. It is suggested to wait about six weeks before resuming sexual activities.

### **Care of Incision, and Bathing**

- Check your incision daily for redness, swelling, gaping or drainage. If the incision becomes red, hot or has a new discharge, contact the Orthopedic Clinic or the Neurosurgery Clinic.

### **Diet**

- Eat well balanced meals with high fibre and drink lots of fluids. Avoid gaining excessive weight. Avoid becoming constipated, your nurse may be able to help you with a bowel routine.

### **Call the doctor promptly if you have any of the following**

- Increased numbness or muscle weakness in your bottom, or leg.
- Increased pain, redness or swelling in your leg.
- Excessive pain or new pain, redness, swelling or drainage (blood or clear fluid) from your incision
- Your wound opens up
- Fever of 38° C (100.5° F) for more than 24 hours, chills
- Nausea or excessive vomiting.

If you have any urgent problems, contact your surgeon or family doctor or go to the nearest Emergency Department. For non urgent concerns, you may contact Telehealth Ontario 24 hour number 1-866-797-0000.

## Questions and Answers

*Before going home, please ask the doctor about the following questions:*

- How long will I have to wear the brace for?
- How long before I can take a tub bath?
- When can I drive a car?
- When can I resume sexual activities?
- When can I go back to work?
- Ensure that you have all the forms you need filled out for work, insurance, etc.

This area is for you to jot down any questions you might have along the way.

This image shows a single sheet of white paper with horizontal blue or grey 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.**Your doctor's phone number**

## Neurosurgeons

Before you are discharged you will be given a follow-up appointment with your surgeon. If you are unable to make your appointment please contact your surgeon.

### **Orthopaedic Surgeons**

Dr. G. Johnson	Office number:	613-761-5168
Dr. D. Chow	Office number:	613-761-4258
Dr. J. O'Neil	Office number:	613-722-1825
Dr. E. Wai	Office number:	613-798-5555 ext. 19138
Dr. S. Kingwell	Office number	613-798-5555 ext. 13245

Your surgeon's name is Dr. \_\_\_\_\_

### **Health Team members**

Physiotherapist: \_\_\_\_\_

Nursing: \_\_\_\_\_

Occupational Therapist: \_\_\_\_\_

Social Worker: \_\_\_\_\_

### **Brace Contact**

Ampos: 613-745-3173 or 613-820-5950 or 1-800-216-6777

We hope this booklet has provided you with helpful information for your recovery following spinal surgery. This information comes from team members and patients like you. Your suggestions are greatly appreciated.

*The Ottawa Hospital, Civic Campus – Neurosurgery and Orthopaedic Surgery Programs*

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The Ottawa Hospital

Patient Information Booklet  
Lumbar Spine Decompression with and without Fusion

**PATIENT SURVEY**

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Dear patient,

We would like to know what you think about this booklet.

Please:

- Complete the survey on the next pages, after you have been home from the hospital for a few days.
- Bring the completed survey with you when you come for your follow-up appointment with your surgeon.
- Give the survey to the office receptionist or nurse.

Your comments will help us to make the booklet better.

Thank you,

*Lumbar Spine Clinical Pathway Team*

Dear family member/support person,

If you are using this booklet because the patient is not able to use it—please complete the survey questions yourself.



The Ottawa Hospital

Patient Information Booklet – Lumbar Spine Decompression With and Without Fusion

# **PATIENT SURVEY**

## **1. Patient Information**

Discharge Date	Year: _____ Month: _____
Age	18 – 69 years      70 years or more
Sex	Female      Male
Education	No High School      Some High School      High School completed College      University
Language	Able to read:    English      French      Other, specify: _____ Able to speak:    English      French      Other, specify: _____
Who is completing the survey?	Patient Family member/support person – Please tell us why the patient is not completing the survey. _____

## **2. Questions about the booklet – Please check ✓ your answer**

Questions	Yes	No	Not Sure
1. Did you receive the booklet before surgery?			
2. Did someone explain the booklet when you received it?			
3. Did you read the booklet before surgery?			
4. While you were in hospital, did the nurse review the booklet with you?			
5. While you were in hospital, did the nurse review the clinical pathway (on pages 3 to 7) with you?			
6. Did the booklet help you to understand your condition and your care in hospital?			
7. Did the booklet help you to prepare for discharge?			
8. Did the booklet give you enough information about what you need to do after discharge?			
9. Was the clinical pathway in the booklet helpful?			
10. Did your care include all (or most) of the care described on the clinical pathway?			

The Ottawa Hospital

Patient Information Booklet – Lumbar Spine Decompression With and Without Fusion

## **PATIENT SURVEY**

What did you like about the booklet?

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How can we make the booklet better?

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*Thank you very much for taking the time to complete this survey.*

**Please cut the survey out of the booklet and bring it to your surgeon's office when you go back for your follow-up appointment.**