

**Patient Guide**

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# **Lumbar Spinal Fusion**

**N.B. Spine Centre**





Atlantic Health Sciences Corporation  
Corporation des sciences de la santé de l'Atlantique

## **Our Mission**

To promote, protect and improve the health and wellness of individuals, families and communities through quality care, education and research.

## **Our Values**

We value **Caring, Respect, Integrity** and **Fairness**, while **Working Together** to achieve **Excellence**.

## **Our Vision**

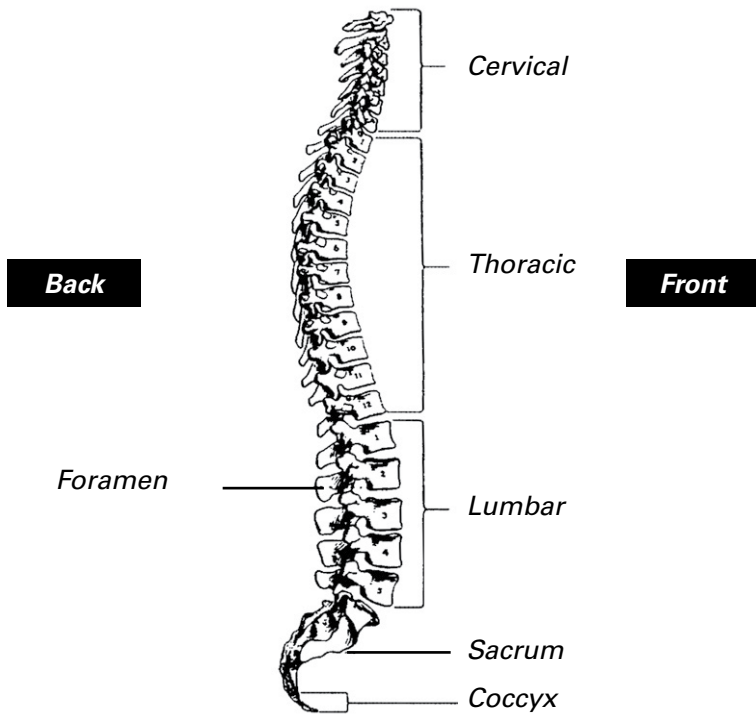
The best possible health and wellness for our community.

## THE SPINE

The spine consists of several bones called vertebrae. There are 7 cervical, 12 thoracic, 5 lumbar, 5 sacral and 4 coccygeal vertebrae. The spine has normal curves which are important for good posture. There are discs between each vertebra which act as cushions to absorb shock. These discs have a liquid jelly-like centre and a tough fibrous outer ring. The spinal cord runs through the middle of the vertebrae. Nerves come off the spinal cord and exit to the left and right through little holes between each vertebra.

**Diagram # 1**  
**The Spine**

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## THE LUMBAR SPINE

The nerves in the lumbar spine supply strength and sensation to the low back and legs. These nerves also play an important role in the normal function of the bowel and bladder and sexual organs.

Pressure on the nerves or spinal cord can cause pain, weakness, numbness, tingling and pins and needles. Pressure may be caused by many problems including the following:

- **Disc Herniation**

Some of the jelly-like centre of the disc oozes out through little cracks in the outer ring and pushes on the spinal cord and/or nerves. See diagram # 2.

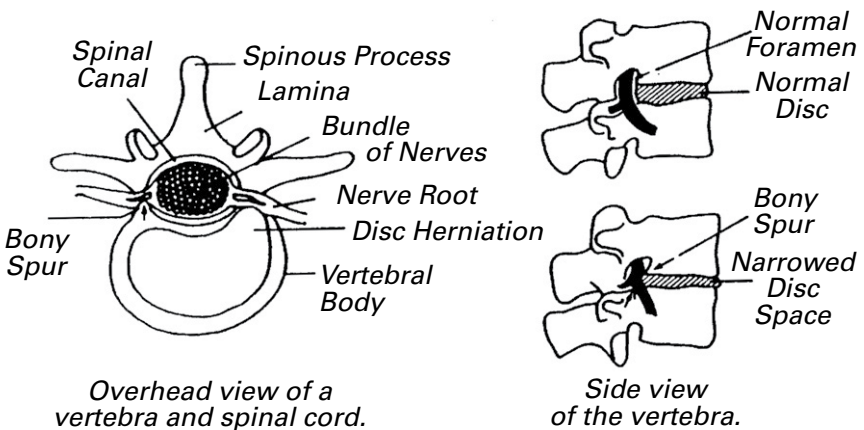
- **Osteoarthritis and Degenerative Disc Disease**

As the spine ages, the disc spaces begin to narrow and bony spurs form. This decreases the space available for the spinal cord and nerves to pass through. See diagram # 2.

**Diagram # 2**

**The Nerves and Spinal Cord**

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**THE SURGERY**

The purpose of your back surgery is to relieve pain and improve your mobility by removing pressure from the nerves and/or spinal cord. Your doctor will make an incision over your spine in your low back and separate the muscles from the bones. Your doctor may choose to do one or both of the following:

- **Fusion with Bone Grafting**

To encourage two or more vertebrae to grow together into one solid column of bone, your doctor will place a bridge of bone graft in between the vertebrae. Bone required for this procedure will most likely be taken from the top part of the pelvis. The bone graft is commonly harvested through the same incision and it is rare that another incision will be necessary. Complete fusion of these bone segments may take up to one year.

- **Fusion with Internal Fixation**

To encourage two or more vertebrae to grow together, your doctor may use metal plates, screws or rods in addition to bone grafting. Unless there are problems, the plates, screws and rods will remain in place.

After the operation, your doctor may order a back brace (Harris, corset or Jewitt) for you to wear while you are sitting, standing or walking. This will help to prevent too much movement of your spine. You may have to wear the back brace for several weeks depending on your doctor's orders.

## **THE HOSPITAL RECOVERY PERIOD**

After your operation, you will have a large dressing over your back incision. Your nurse will change your dressing while you are in the hospital. The physiotherapist and physiotherapy assistant will get you up walking 24-48 hours after your surgery depending on your doctor's orders. Discharge from the hospital is usually within 5-7 days of your surgery and a follow-up appointment arranged with your doctor 3 months later.

## **PAIN**

Discomfort and swelling around the incision can be expected after the surgery. It is possible for the pain and numbness to continue after the surgery. However, these symptoms should gradually disappear over time. The pain in your leg is often improved immediately but the numbness may take longer to go away.

Your physiotherapist, physiotherapy assistant or nurse will apply ice packs directly over your incision 2-3 times each day, for 15 minutes each time. Ice will help to decrease the pain and swelling you may have. Continue with the ice packs at home until the pain and numbness have completely disappeared. You can make your own ice pack by wrapping a bag of frozen peas in a cold damp hand towel and placing it directly over your back incision.

## **PAIN MEDICATION**

You may be placed on a PCA (patient controlled analgesic) pump for a few days. The pump will allow you to give yourself a controlled amount of pain medication as needed. Once the PCA pump is removed, it is very important that you let your nurse know you are having pain, so that you receive your pain medication at regular

times. This will make you more comfortable and able to walk and carry out the exercises with your physiotherapist.

## **BACK BRACE**

You should always wear your back brace when you are sitting, standing or walking. The orthotist or orthotist technician will fit you with your back brace and together with the physiotherapist, will teach you how to put the brace on and take it off.

## **STAIRS**

Do the stairs one step at a time, not alternate steps. Go “up with the good leg” and “down with the bad leg”. Once you are feeling strong and walking well by yourself, you may begin to use alternate steps when going up and down the stairs.

## **GETTING IN AND OUT OF BED**

You should put your back brace on while you are still lying in bed by log rolling from side to side. Your physiotherapist will teach you how to log roll when getting in and out of bed.

While lying on your back, bend up both knees so your feet are flat on the bed. Place a pillow between your knees. Keep your body straight and roll onto your side. Place your legs over the edge of the bed and use your arms to push yourself up into a sitting position. While sitting, keep your hands at your side to support your back. Slide your buttocks to the edge of the bed and then stand up keeping your back as straight as possible.

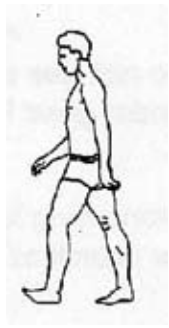
When going back to bed, sit on the edge of the bed with a pillow placed between your knees. Aim the tip of your shoulder for the pillow and slowly lower yourself down onto your side. Bring your legs up. You may then hike your hips back to remain in side lying position or log roll onto your back.

## **SITTING**

After your surgery, you should sit in a high, firm, straight-back chair. When sitting, your knees should not be higher than your hips. It is not good to sit for periods longer than 30 minutes during the first two weeks following your surgery. After 2 weeks, you may increase your sitting time depending on your tolerance and depending on how sore you are.

## **WALKING**

Walking is an excellent way to keep healthy and fit. However you must be cautious the first few days after your surgery. Start slow by taking several short walks each day. Progress your speed and distance as pain and fatigue allow. If you limp or have a lot of pain or unsteadiness, your physiotherapist may place you on a cane or walker until these symptoms completely disappear. Feel free to walk outside as you wish.



## **EQUIPMENT**

Your physiotherapist and occupational therapist may prescribe equipment for you when you go home. The equipment may be available on a loan basis from the Red Cross. Your therapist will assist you in arranging the Red Cross equipment.

If the equipment is not available from the Red Cross, you may have to rent or purchase the equipment. See the information sheet outlining various retail stores. Prices vary, therefore it is suggested that you telephone the various stores to find the best price.

## **DAILY ACTIVITIES**

The following is a general guide for returning to normal daily activities. The time frames may vary depending on how you are feeling. In general, you should be taking it easy for at least three months after your surgery. Activities should be restarted and increased gradually.

## **CONSTIPATION**

Pain medication may cause constipation. Therefore, it may be helpful to eat foods high in fiber. In some instances, it may be necessary to take a laxative.

## **HYGIENE**

It is best to sponge bathe for the first 10-14 days after your surgery. Once your incision is healed, you may begin to shower. It may be helpful to use a long handled sponge for hard to reach areas such as your feet. Your knee should never be higher than your hip when stepping into the tub. Therefore, it is best to use a walk-in shower to prevent any problems. Do not sit directly in the bathtub for

at least three months after your surgery. The occupational therapist may show you how to use a tub transfer bench to help with bathing.

## **HOUSEWORK**

Housework should be limited to light activities. Do not do any heavy housework such as vacuuming, laundry, making a bed or grocery shopping for at least twelve weeks after your surgery.

## **DRESSING**

Lie on your back and bring your legs up when putting on your socks, undergarments, pants or skirt. You may also sit in a chair and use a reacher. However, make sure you do not lean forward at your waist. A sock aid may assist you in putting on your socks. If you have any concerns about your ability to dress, wash or carry out any other activities of daily living, please ask to see the occupational therapist (if you have any concerns).

## **CAR TRAVEL**

You are legally impaired to drive for the first 6 weeks following your spinal surgery. You will not be able to drive during this time. You should arrange your travel accordingly. If you must travel by car, proper posture can be accomplished by adjusting your seat or head rest. A reclined position is often very comfortable following back surgery. Try to avoid long trips, but if you must do so, take several rest stops and enjoy brief walks - safely!!!

## **RETURN TO WORK**

You may be off work for at least three months after your surgery. Date of return to work will depend upon the type of surgery as well as the demands of your job. People with lighter jobs, i.e. desk jobs, will likely return to work sooner than those involved in heavy lifting and manual labour. Your doctor will advise you further during your follow-up appointment.

## **SPORTS**

Avoid all sports for at least 3-4 months after your surgery. Regular high intensity sports such as hockey or basketball must be avoided for six months or longer, as recommended and discussed with your doctor.

## **SEXUAL ACTIVITY**

As with any other physical activity, sexual activity may increase your back pain or make you feel uncomfortable. Start cautiously and avoid increasing your back symptoms. For further information, discuss with your doctor.

## **PHYSIOTHERAPY**

It is recommended that you carry out the exercise program as instructed by your physiotherapist. If necessary, your doctor may refer you to another physiotherapist following discharge from the hospital.

## **HEALING**

Research studies have shown that smoking will decrease the ability of your fusion to heal.

## **POSTURE AND BODY MECHANICS**

Correct posture helps to decrease the amount of stress on your back. It is very important that you practice good posture and body mechanics after your surgery.

Here are a few suggestions:

### **1) Lying on Your Back**

You may use a pillow under your legs.



### **2) Lying on Your Side**

Pillows between your knees may be more comfortable.

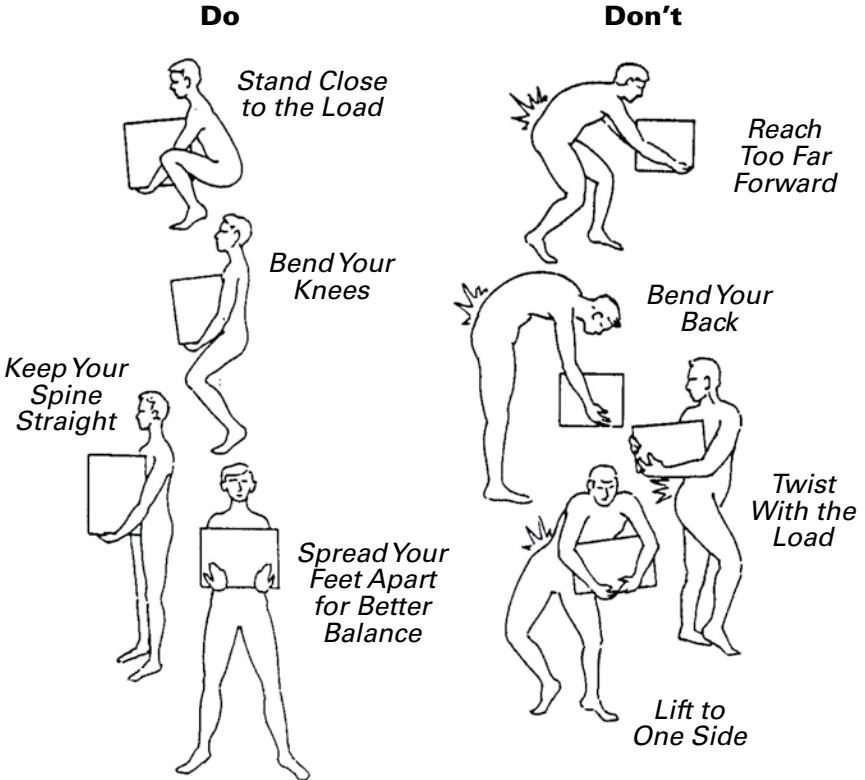


3) Prone lying is OK to do. Lying on your stomach may prepare you for exercises after your back has successfully healed.

# LIFTING

When moving an object, always push the object before pulling it. However, do not lift, push or pull any object greater than 5 pounds for at least 6-12 weeks after your surgery. For example, you may carry a carton of milk. The following pictures illustrate the do's and don'ts of lifting.

## Principles of Lifting



**If you have any questions or concerns, please contact your doctor or physiotherapist.**

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

Date: \_\_\_\_\_ Telephone: **648-6912**