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Procedure: \_\_\_\_\_

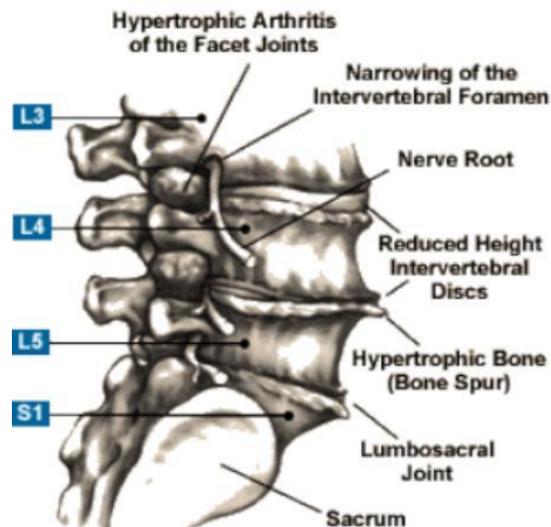
## **LUMBAR LAMINECTOMY AND FUSION**

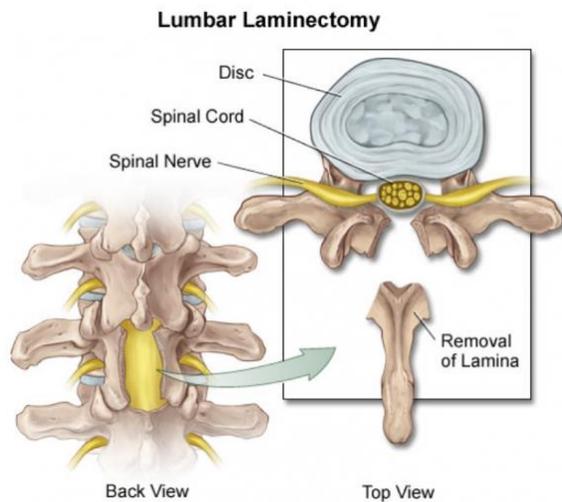
Most likely, the pain in your back or legs, or both, ultimately led you to seek help. You have been diagnosed as having lumbar spinal stenosis and/or spondylolisthesis and will require a **lumbar laminectomy and fusion**.

The condition of spinal stenosis results in the narrowing of the spinal canal in which your nerves are contained. This narrowing, or stenosis, and the pressure on the nerves can result in pain, numbness and or weakness of one or both legs. These symptoms are usually aggravated by walking and/or standing. Spinal stenosis can be caused by a variety of reasons, including age, repetitive stress, arthritis, thickening of the ligaments and a buildup of calcium. Some people are born with a narrow canal which can become symptomatic with age and stress.

Often patients who have spinal stenosis also have a condition called spondylolisthesis, or slippage, of one vertebral body over another. This can also result in nerve compression and associated pain and other symptoms. The degree of "slippage" may cause spinal instability that would require a fusion operation for stabilization to be done at the time as when your stenosis is being surgically addressed. Spondylolisthesis can be

something you are born with or it can be as a result of degenerative changes, but can likewise be seen secondary to trauma to the lumbar spine, or in those patients who are post-laminectomy. The levels most commonly involved are L4-5 and/or L5-S1. Risk factors for these changes to the spinal column include prior spinal surgery, obesity, prior trauma or repetitive injury. Patients with spondylolisthesis typically present with a long and slowly progressive history of leg pain that increases with walking. Patients will



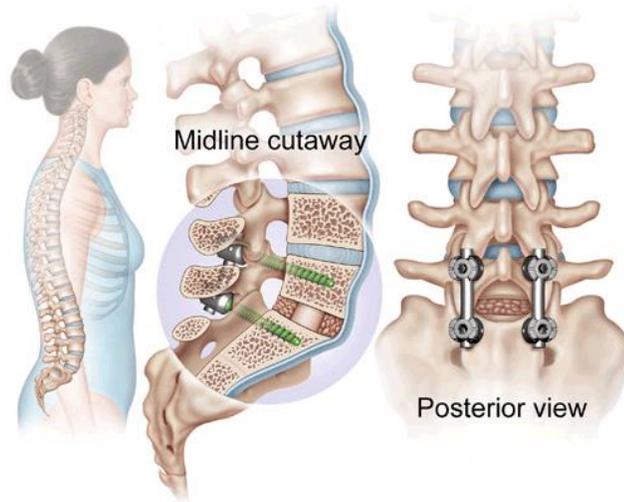


commonly say that the distance they are able to walk has become shorter and shorter. If the condition is left untreated, it may simply become too painful for the patient to walk, and they may then resort to the use of a wheelchair or other assistive device.

The lumbar laminectomy procedure is designed to relieve this compression from the nerves. Generally, with the nerves decompressed, the symptoms should improve. The surgeon reaches the lumbar spine through a vertical incision in the lower back, which will be about 3-6

inches long, along the mid-line. Pressure is relieved by removal of the back portion of the vertebrae called the lamina. The lamina is bone that covers the spinal nerves or cord.

The lumbar fusion procedure involves placing screws into the vertebral bodies in order to hold them into place. These screws are connected with rods on each side. Bone from the bone bank is placed around the titanium screws, and this bone will fuse over the hardware. If deemed appropriate, your surgeon may collect blood from the bone marrow in your hip during the procedure as this is rich blood that can assist the bone in fusing.



Lumbar laminectomy with fusion takes about two to four hours. Generally, you will be walking the day of surgery. You should anticipate a three-night stay in the hospital. Discharge can be sooner in some cases if you are progressing quicker than expected. Please arrange your transportation home in advance.

The risks involved with this type of surgery include: Infection, excess bleeding, damage to dural nerve root, bladder and bowel dysfunction, cerebrospinal fluid leak, no relief of symptoms, excess scarring, increased neurological dysfunction, anesthetic complications, complications related to hospital stay and/or positioning, intra-abdominal injury, vascular injury, nerve root injury secondary to malplacement or displacement of screws, hardware failure, screw fracture and/or death.

After surgery, discomfort from your incision is common but temporary. This can be relieved with pain medications and muscle relaxers. Following the procedure, you may experience persistent numbness, weakness and pain, but these symptoms are generally temporary and gradually go away. Most likely, you will return to the many activities you enjoyed before your pain occurred.

## **Testing Before Your Surgery**

- On the day of your office visit, you will receive a prescription for pre-surgical testing to detect any abnormalities. **These tests can be done up to one month prior to your surgery date. The results must be reviewed by the neurosurgeon's office no later than three working days before your surgery date.** The prescription allows Passavant Hospital or any certified laboratory approved by your insurance company, to do the tests and forward the results to the neurosurgeon's office for review.
- You will also receive a medical clearance form to be completed by your primary care physician. **This form should be completed no more than thirty (30) days prior to your surgery and faxed to our office at 724-720-4598.**
- **If you see any medical specialists, such as a cardiologist or endocrinologist, please notify our office.** Sometimes it is necessary for these physicians to provide clearance prior to your operation.
- One to two days prior to surgery you will be contacted by a nurse in the surgical department at Passavant Hospital, who will review your health and medication history. **If you have not received a call by 3:00 pm, the day before your surgery, please call 412-367-6567.** Please be prepared and have a list of questions and your medications by the phone. The nurse will tell you what time you need to arrive at the hospital for your operation.

**If you have any questions before your surgery, please contact our office at 1-877-635-5234.**

## **The Day of Surgery**

You will be thinking of many things on the day of your surgery, and it is only natural to be overwhelmed and possibly confused about what to do. This information and other information provided can help you become familiar with the process involved with your hospitalization and surgery. We hope that this helps to answer your questions and reassure you about your procedure.

### ***Arrival at Passavant Hospital***

- Plan to arrive at Passavant Hospital on the first floor and take the main elevator to the second floor to the surgical waiting area to check in.
- Eating or drinking after midnight the night before surgery is **NOT** permitted unless otherwise instructed.
- You will be visited by the PA who will perform a preoperative assessment.
- You will be visited by the surgeon who will place a mark over the surgical site.
- You will meet with the anesthesiologist who will review the risks of general anesthesia and answer your questions about the anesthetic.
- Your back may be scrubbed by the nurse in preparation for surgery.
- An intravenous (IV) line will be inserted, and you will be given antibiotics and fluids.
- Someone will be in to fit you for a custom lumbar brace which will be utilized after surgery.
- All visitors should wait in the surgical waiting room. They will be able to join you prior to being taken back to the operating room.

### ***Operating Room***

- You will meet with a nurse anesthetist who will take you back to the operating room.
- You will be asked to review your name, date of birth and procedure when you enter the operating room.
- After you are asleep, a foley catheter, which relieves the bladder of urine, will be placed due to the length of the procedure.
- You will be in surgery for about two to four hours.
- Any pertinent updates during the case will be communicated to your family over the phone by the nurse in the operating room.
- The surgeon will contact your family after the procedure to update them on how the procedure went.
- After surgery, you will be taken to the Recovery Room.

### ***Recovery Room***

- Your vital signs will be checked frequently, the surgical dressing will be checked, and your symptoms will be assessed.
- You may receive pain medication.
- You will not be allowed to eat or drink.
- Your nurse will provide updates to your family as necessary over the phone.
- You will remain in the Recovery Room until you are completely awake, which usually takes one to two hours.
- For your safety and the safety of other patients who also just had surgery, visitors are NOT allowed in the Recovery Room.
- You then will be taken to the Patient Unit located in Passavant Hospital and your visitors will be informed as to which Unit you will go to.

### ***Patient Unit***

- The nursing staff will assess you on arrival to the floor and monitor your progress.
- Your IV line will remain in place until discharge, although you will not be connected the entire time.
- Your foley catheter will remain in place until the morning after surgery unless requested to be removed sooner.
- You will be asked to take deep breaths to prevent pneumonia and do ankle and calf exercises to prevent blood clot complications. Pain medications are available; you should ask for this if you need it.
- You will be assisted out of bed the first time you get up. Then, you are encouraged to walk on your own in your room and the halls. Physical therapy and occupational therapy will work with you during your stay and they will go over your restrictions in detail.
- A drain is typically placed in the wound after surgery in order to drain excess fluids and to prevent you from developing a hematoma, or collection of blood, which could put pressure on the spinal cord. This will be removed once the drainage has slowed appropriately. The drain will be removed prior to discharge. You will not go home with a drain. The operative dressing will remain in place until the drain is removed by the PA.
- You will be required to wear your lumbar brace when you are sitting or out of bed unless you are instructed differently.

## *Discharge*

- Patients who have had lumbar fusion should anticipate a three-night stay in the hospital. Discharge can be sooner in some cases if you are progressing quicker than expected. Your nurse and PA will discuss your discharge instructions. Please prepare questions to ask at this time.
- You will be given a discharge instruction sheet that will include restrictions, activities, physical therapy, medications and care of the incision.
- Prior to discharge, you will receive a prescription for an x-ray to obtain prior to your first postoperative appointment.
- Remember to arrange your transportation home prior to this day. You will not be allowed to drive yourself home. If you anticipate a problem with your travel arrangements, please notify the staff prior to your surgical date.

## **Discharge Instructions**

- A follow-up appointment will be given to you on your day of discharge. If the time or location is not convenient, please call **1-877-635-5234** to reschedule.
- Until you are seen in follow-up, you should limit your activities. You may walk as much as you would like. However, you should avoid lifting more than five pounds, bending at the waist, twisting or sitting for more than 30 minutes.
- You may not drive until you are seen in follow-up.
- Your lumbar brace should be worn when you are sitting or out of bed unless you are instructed differently at discharge. This is typically required for at least the first 2 weeks after surgery and then it will be gradually discontinued.
- You will need someone to assist you with dressing changes. You will be given supplies when you are discharged.
- You will be given prescriptions for a pain medication, muscle relaxant and antibiotic. Take these medications as instructed. Make sure to ask questions at your discharge time.
- You should call our office immediately if you experience any of the following: fevers, chills, night sweats, swelling at the incision, redness or drainage from the incision, new weakness or pain in your arms or legs.

**After your operation, if you have any questions regarding your incision or symptoms that you may be experiencing, please contact our office at 1-877-635-5234.**

## **Members of the Health-Care Team**

You will meet a number of health professionals during this time. Their goal is to help you recover and return you to your prior activities. A brief description of each of these professionals follows:

- **Neurosurgeon.** You have already met this person, who will perform the surgery and direct your care afterward. Please feel comfortable asking questions of your surgeon - communication is an essential key toward recovery.
- **Nurse.** A nurse will obtain information and assess your condition both in the surgeon's office and in the hospital. The office nurse will evaluate you before you

see the surgeon and again with the surgeon at the time of your visit. The office nurse will help explain the procedure, answer questions and arrange your surgery. The hospital nurse will assess you in the hospital, and help you before, during and after your surgery. The nurse also will answer questions from you and your family.

- **Physician assistant.** The physician assistant (PA) has been trained to perform many tasks done by a physician. The PA may perform your history and physical examination and review the surgical procedure. The PA can answer questions and will follow you in the hospital after surgery, along with your physician. The PA will review your discharge instructions on the day after your procedure and will facilitate your discharge planning.

Most of the information you will need about your stay is located in your blue folder or the UPMC Information Handout, included in your admission packet. Pertinent telephone numbers, directions, maps, lodging and parking information are highlighted. Your discharge instructions will help you become familiar with any limitations you will have after surgery.

**If you have specific questions that are not addressed in these materials, please call your neurosurgeon at 1-877-635-5234.**

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