



Lumbar Fusion

Why is this procedure done?

Lumbar fusions are intended to stabilize two or more segments of the spine that have too much motion. This excessive motion can cause pinching of the spinal nerves, which causes the patient to have a combination of back pain and leg pain or weakness. By stiffening the loose spinal segments, the surgery can prevent further pinching of the spinal nerves. A fusion is usually done in combination with a laminectomy, which takes additional pressure off the spinal nerves.

How is this procedure done?

A lumbar fusion is done through an incision in the midline of the low back. Once the back muscles are lifted away from the spine, the laminectomy portion is usually performed. Next a bone graft is usually taken from the hip. Other sources of bone graft include the bone taken from the laminectomy, bone from a cadaver, and synthetic bone substitutes. Discuss the best bone graft options for you with your surgeon.



Next the hard portion of bone on the outer edges of the vertebrae is roughened to provide a surface for the bone graft to grow in to. The bone graft is then placed on the roughened surfaces of the spine. Further stability is usually added in the form of screws and rods that are anchored in the vertebrae. This hardware does not typically need to be removed.

What should I expect after the surgery?

Immediately after the operation, your pain will be controlled with IV medications. You should expect to have pain in the back and in the hip if bone graft is taken. Usually a catheter is left in the bladder and a drain in the surgical wound for the remainder of the day of the operation. You may notice some swelling around your face and eyes from laying face down on the operating table. This should resolve by the next morning. Your diet will be held to liquids until you have good bowel sounds heard through a stethoscope (usually in the morning after surgery).

If a laminectomy was done in addition to the fusion, you should notice a decrease in your buttock and leg pain very quickly after the surgery. The pain from the fusion and bone graft site may take longer (two to three weeks) to subside. You will begin to notice you are able to walk longer distances and stand longer as you recover from the surgery. The bone graft takes three to 12 months to fully solidify and create a mature fusion. Once it is fully developed, it typically does not ever loosen.

Starting a daily aerobic exercise routine such as walking, swimming, or cycling **today** can help minimize complications and lead to a quicker recovery and return of function after the operation.

How long will I be in the hospital?

You should expect to stay three to five days in the hospital depending on the number of levels fused and how quickly you are able to move around comfortably and safely. Some patients may benefit from an additional stay in an inpatient rehabilitation facility.

What are the risks?

The most common risk is failure of the bone graft to incorporate and create a solid fusion. Literature reports these rates to be 10-20%, but it is very technique dependent. The risk of the fusion failing to solidify is higher



when multiple levels of the spine are fused, the patient uses tobacco or is obese, and with some types of bone graft other than from the hip.

The next most common risk is the future development of painful arthritis at the levels above or below the fused levels (about 10%). This would be treated with surgical extension of the fusion. The next most common complication is leak of spinal fluid (1-3%). This complication does not typically change the overall outcome of the surgery, but you may be asked to remain on bed rest for one or two days after the operation to allow the leak to seal over.

Other less common risks include infection, bleeding requiring a blood transfusion, nerve injury, reaction to anesthesia, failure of the surgery to relieve symptoms, persistent back pain or hip pain, failure of the rods or screws, and very rarely, bowel or bladder incontinence or paralysis. Other complications such as heart attack, blood clots, stroke, and even death can occur with any surgery including a lumbar fusion.

What restrictions will I have?

For the first three weeks (or until you are seen back in the office) you should:

- Avoid heavy lifting (>15 lbs)
- Avoid excessive bending or twisting at the waist. Bend at your knees
- Avoid prolonged periods of sitting, although there are no limitations for sitting in a recliner
- Avoid driving

You should expect to wear a brace for the first three weeks except while bathing.

Will I need therapy?

After the operation you will be seen by a physical therapist daily to help you learn to get in and out of bed, walk and climb stairs safely. Fusion patients are encouraged to walk as much as possible for exercise. Some patients may not require a formal physical therapy or rehabilitation program after discharge from the hospital.

How do I care for my wound?

After the operation you will have a dressing over your lower back and usually a drain tube. Two days after the operation the drain and dressings will be removed. Underneath, there will be small strips of tape directly on the skin over your incision that should not be removed. They will either fall off in the shower or may be removed at two weeks. Showering is allowed three days after the operation if the wound has been dry for the previous 24 hours. Avoid submersion of the wound in water for at least two weeks. Between showers keep the wound covered with clean light dressing. Make sure you wear a t-shirt under the brace to help avoid skin irritation.

Call our office with any signs of infection, including redness and/or swelling at the incision site, or excessive drainage.