piedmont orthopaedic associates

Lumbar Interbody Fusion

Why is this procedure done?
Like other methods of lumbar fusion, the interbody fusion technique is 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 and inflammation of the arthritic joints. The interbody technique is usually done in very unstable spines to supplement a lateral fusion and is often done along with screws and rods to provide the most stable fusion possible.

How is this procedure done?
A lumbar interbody fusion is done through an incision in the midline of the lower back. Once the back muscles are lifted away from the spine, the roof covering the spinal cord, called a laminae, is removed and the pressure on the spinal cord and nerves is relieved. Next the cushion between the vertebrae, called a disc, is removed and bone surfaces are roughened to provide a surface for the bone graft to heal into. Then either a titanium cage or bone graft from a cadaver is inserted into the space where the disc was removed. Often, further stability is added in the form of screws and rods that are anchored in the vertebrae and additional bone graft is placed on the sides of the vertebrae.

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 your back and your 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 trough a stethoscope, usually in the morning after surgery. If you had a significant amount of buttock or leg pain and numbness before the surgery, you should notice these begin to subside fairly 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 for longer times 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.

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.

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.

What are the risks?
The most common risk is failure of the bone graft to incorporate and create a solid fusion. When the interbody fusion is done in addition to a lateral fusion and screws and rods, the risk of the fusion not taking is only about 5-10%. The risk of the fusion failing to solidify is higher when the patient uses tobacco or is obese, and with some types of bone graft substitutes.

Another 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%). Fortunately, this does not typically change the overall outcome of the surgery, but you may be asked to remain on bed rest for one to two days after the operation to allow the leak to seal. Other less common risks include infection, bleeding, nerve injury, reaction to anesthesia, 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 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

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 form 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 a clean, light dressing. You should expect to wear a brace at all times for the first three to four weeks except for bathing. Make sure you wear a t-shirt under the brace to avoid skin irritation. **Call our office** with any signs of infection, including redness and/or swelling at the incision site, or excessive drainage.