

AXIS SPINE NEWSLETTER

Anterior Lumbar Spine Fusion by DANIEL J. BLIZZARD, MD

WHAT IS ANTERIOR LUMBAR SPINE FUSION (ALIF)?

During anterior lumbar interbody fusion, an incision is made in the front of the belly. A general or vascular surgeon and spine surgeon work as a team. The general/vascular surgeon clears a path to the spine, moving aside the vessels to the legs and internal organs. The spine surgeon removes the damaged and/ or unstable disc and fills the space between the bones with a spacer bone graft. The spacer restores the height between the bones, corrects the spinal curvature, and relieves pinched nerves. The graft becomes a bridge between the two bones to promote fusion. In some cases, the graft is strengthened with a metal plate and screws.



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He has published over 30 peer-reviewed articles in journals including Spine, The Spine Journal, The Journal of Neurosurgery, and the European Spine Journal His work has been presented over 50 times at the podiums of national and international spine meetings.

WHAT ARE THE ADVANTAGES TO AN ANTERIOR LUMBAR SPINE FUSION?

Anterior spine fusion has several advantages:

- A larger spacer device can be used, providing more support by distributing the force the disc bears over a larger surface area and leads to a better chance of fusion.
- 2. The path to the spine is from the front so there is less pain and disruption to the back muscles.
- 3. Moving a forward-slipped L5 vertebra back into normal position and restoring proper tilt (lordosis) may be more successful from the front.
- 4. Anterior fusion allows the surgeon to avoid directly manipulating the spinal nerves.

WHY DO WE CARE ABOUT RESTORING THE PROPER TILT (LORDOSIS)?

The human spine is designed to have natural curvatures. Not restoring the adequate lumbar curvature during fusion surgery may result in mechanical low back pain, sagittal unbalance, and degeneration of the segment above or below the fusion. Poor alignment from lack of correction of lordosis will cause other lumbar disc levels to prematurely degenerate, potentially leading to the need for additional surgery.

WHAT ARE THE RISKS?

No surgery is without risks. General complications of any surgery include bleeding, infection, blood clots (deep vein thrombosis), and reactions to anesthesia. There are other risks specific to ALIF that your surgeon will discuss with you.

WHAT ABOU RECOVERY?

Recovery time to daily activities is usually 6 to 12 weeks. X-rays may be taken after several weeks to verify that fusion is occurring. The surgeon will decide when to release you back to work at your follow-up visit. Fusion takes time. Recurrences of pain are common. Be patient.

WHO IS A CANDIDATE?

You may be a candidate for ALIF if you have:

- Degenerative disc disease
- Spondylolisthesis
- Scoliosis or flat back syndrome
- Symptoms that have not improved with physical therapy or medication

You are not a candidate for ALIF if you have:

- Problems that would prevent bone fusion
- Significant prior abdominal surgery
- Severe atherosclerosis of the aorta or iliac vessels; peripheral vascular disease
- Obesity (a weight loss plan is advised)
- Severe osteoporosis

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WHAT DOES THE RECOVERY AFTER SURGERY LOOK LIKE?

Restrictions:

- Avoid bending / twisting your back in the months immediately following surgery.
- Don't lift anything heavier than 5-10 pounds.
- No strenuous activity, including yard work, housework, and sex.
- DON'T SMOKE, vape, dip, chew or use nicotine products. It prevents new bone growth and may cause your fusion to fail.

Activity:

- Don't sit or lie in one position longer than an hour unless you are sleeping. Stiffness leads to more pain.
- Get up and walk 5-10 minutes every 3-4 hours. Gradually increase your walking time as you are able.