

ALIF or Anterior Lumbar Interbody Fusion

Brief description of the procedure

The anterior lumbar interbody fusion (ALIF) is similar to the posterior lumbar interbody fusion (PLIF), except that in the ALIF, the disc space is fused by approaching the spine through the abdomen instead of through the lower back. In the ALIF approach, a three-inch to five-inch incision is made on the left side of the abdomen and the abdominal muscles are retracted to the side

Disorders it treats

Spondylolisthesis, Spondylolysis, Spinal Stenosis, Segmental Instability, DDD, Disc Herniation, Spinal Tumor, Vertebral Fracture

Possible Post-Op findings

Most patients are usually able to go home 3-4 days after surgery. Patients will typically stay longer, approximately 4-7 days, if a posterior spinal surgery is also performed. There is a major risk that is unique to the ALIF approach. The procedure is performed in close proximity to the large blood vessels that go to the legs. Damage to these large blood vessels may result in excessive blood loss. Quoted rates in the medical literature put this risk at 1% to 15%, although this should be an uncommon complication in the hands of experienced vascular and spine surgeons. In general, the principal risk of this type of spine surgery is that a solid fusion will not be obtained (nonunion) and further surgery to re-fuse the spine may be necessary. Fusion rates for an ALIF should be as high as 90-95%. Non-union rates are higher for patients who:

- Have had prior lower back surgery
- Smoke or are obese
- Have multiple level fusion surgery
- Have been treated with radiation for cancer.

Not all patients who have a nonunion will need to have another fusion procedure. As long as the joint is stable, and the patient's symptoms are better, more back surgery is not necessary. Other than non-union, the risks of a spinal fusion surgery include infection or bleeding. These complications are fairly uncommon (approximately 1% to 3% occurrence).

Factors influencing recovery

Slower healing rate caused by i.e. diabetic, smoker, old age, osteoporosis, obesity, and malnutrition. •If you had a fusion, do not use non-steroidal anti-inflammatory drugs (NSAIDs) (e.g., aspirin; ibuprofen, Advil, Motrin, Nuprin; naproxen sodium, Aleve) for 6 months after surgery. NSAIDs may cause bleeding and interfere with bone healing.

Brace (Y/N)

Patients are generally not required to wear a back brace after surgery. Occasionally, some patients may be issued a soft or rigid lumbar corset that can provide additional lumbar support in the postoperative period, if necessary.

How long?

4 weeks post-op, until the patient sees the surgeon

Driving restrictions (Y/N)

Patients may begin driving when the pain has decreased to a mild level, which usually is between 7-14 days after surgery. Patients should not drive while taking pain medicines (narcotics). When driving for the first time after surgery, patients should make it a short drive only and have someone come with them, in case the pain flares up and they need help driving back home. After patients feel comfortable with a short drive, they can begin driving longer distances alone.

Physical Therapy Needed?

Yes, OP starting 4 weeks after surgery.

PT objectives

Increase lumbar CORE strength. Teach proper posture and proper ergonomics and body mechanics. Teach patient HEP for CORE and for CARDIO. Strengthen lower back to allow patient to function without the brace. Get patient to join a local YMCA or gym.

PT modalities

Strengthening, Coordination, Proprioception exercises at first. Later on gentle AROM exercises will be added. US/E-stim as indicated

PT restrictions

No Bending, Lifting, Twisting (BLT) for 6 weeks, or unless surgeon indicates otherwise. Patient may remove brace during supervised therapy sessions

Work/Hobby restrictions

Patients may return to light work duties as early as 2-3 weeks after surgery, depending on when the surgical pain has subsided. Patients may return to moderate level work and light recreational sports as early as 3 months after surgery, if the surgical pain has subsided and the back strength has returned appropriately with physical therapy. Patients who have undergone a fusion at only one level may return to heavy lifting and sports activities when the surgical pain has subsided and the back strength has returned appropriately with physical therapy. Patients who have undergone fusion at two or more levels are generally recommended to avoid heavy lifting, laborious work, and impact sports.

Incision Care

Patients can shower immediately after surgery, but should keep the incision area covered with a bandage and tape, and try to avoid the water from hitting directly over the surgical area. After the shower, patients should remove the bandage, and dry off the surgical area. Patients should not take a bath until the wound has completely healed, which is usually around 2 weeks after surgery.

You may shower 1 to 4 days after surgery. Follow your surgeon's specific instructions. No tub baths, hot tubs, or swimming pools until your health care provider says it's safe to do so. If you have staples or stitches when you go home, they will need to be removed. Ask your surgeon or call the office to find out when.

When to call your surgeon

If your temperature exceeds 101° F, or if the incision begins to separate or show signs of infection, such as redness, swelling, pain, or drainage. If your swallowing problems interfere with your ability to breathe or drink water.

Follow with surgeon

Patients will return for a follow-up visit to see the doctor approximately 12-14 days after surgery. The incision will be inspected. There are no sutures to be removed from the anterior wound. Medications will be refilled if necessary. Patients will usually return to see Dr. Spoonamore every 4-6 weeks thereafter, and an x-ray will be taken to confirm the fusion area is stable and healing appropriately. At 8-12 weeks after surgery, patients will be given a prescription to begin physical therapy for gentle back exercises.

Outcomes

The results of anterior lumbar interbody fusion (ALIF) surgery in the treatment of symptomatic spondylolisthesis and degenerative disc disease are generally excellent. Numerous research studies in medical journals demonstrate greater than 87-97% good or excellent results from ALIF surgery. Most patients are noted to have a significant improvement of their back pain and return to many, if not all, of their normal daily and recreational activities.