

## ANTERIOR LUMBAR INTERBODY FUSION (ALIF)

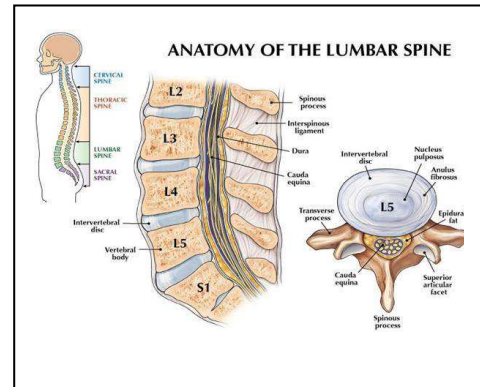
### INDICATION FOR SURGERY

This procedure involves approaching the spine from the front of the body to remove disc or bone material from in between two adjacent lumbar vertebrae. The procedure may be performed either as an open surgery or using minimally invasive techniques.

### SURGICAL PROCEDURE

The patient is given a general anaesthetic at the start of the procedure to stay asleep. The surgery is performed with microscopic magnification.

In the anterior lumbar interbody fusion (ALIF) approach, the disc space is fused by approaching the spine through the abdomen. A 7-10cm incision is made in the abdomen and the abdominal muscles are retracted to the side. The anterior abdominal muscle in the midline (rectus abdominis), is retracted to the side. The abdominal contents lay inside a large sack (peritoneum) that can also be retracted, thus allowing the spine surgeon access to the front of the spine.

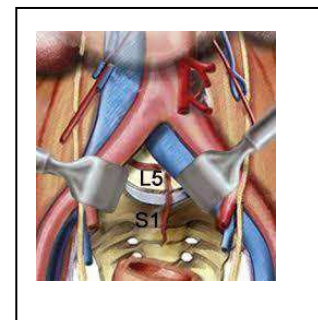


The large blood vessels that continue to the legs (aorta and vena cava) lay on top of the spine, so the spine surgeon may perform this surgery in conjunction with a general surgeon who mobilizes the large blood vessels. After the blood vessels have been moved aside, the disc material is removed and a cage filled with bone morphogenic protein (BPM) is inserted. The incision is closed with dissolvable sutures and a drain tube removes the blood that collects at the surgical site.

### RISKS

Generally, this type of surgery is safe and major complications are uncommon. The chance of a minor complication is around 3 or 4%, and the risk of a major complication is 1 or 2%.

The risks specific to this procedure include: bleeding; infection; nerve root injury – weakness, numbness, altered bowel, bladder, and/or sexual function; spinal fluid leak, persistent or recurrent symptoms, general surgical problems – anaesthetic complications, chest infection, heart problems, clots in the legs/lungs, scar formation, failure of fusion of hardware and death.



For male patients there is an additional risk unique to this approach.

Approaching the L5-S1 (lumbar segment 5 and sacral segment 1) disc space from the front has a risk of creating a condition known as retrograde ejaculation. There are very small nerves directly over the disc interspace that control a valve that causes the ejaculate to be expelled outward during intercourse. By dissecting over the disc space, the nerves can stop working, and without this coordinating innervation to the valve, the ejaculate takes the path of least resistance, which is up into the bladder.

(All surgeries carry risks related to medication, operation or anaesthetic. Risks related to the anaesthetic depend on other medical issues and to the medications used and include heart and lung problems, clots in the lungs or legs etc.)

## DISCHARGE AND HOME CARE

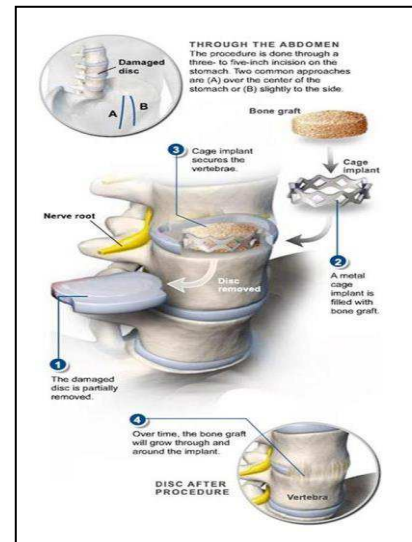
Patients can go home after being reviewed by the physiotherapist. The patient should be able to drink, eat and have normal bladder/bowel movement prior to discharge. Most patients go home 5 to 7 days after surgery.

It is necessary to have some rehabilitation prior to going home. This will be organized during your hospital stay. It may take weeks to feel normal. Pain can be controlled with tablet pain killers. Any other medications that have been stopped prior to surgery (such as blood thinners) should only be continued after discussion with the surgeon.

Activities such as heavy lifting, bending, twisting moving objects, prolonged sitting or standing should be avoided. Swimming should be avoided for three weeks after surgery. No heavy lifting for 12 weeks.

Patients should continue with exercises prescribed by the physiotherapist. Patients should not drive if they are taking narcotic pills. They should limit driving to short trips and slowly extend driving time.

Patients may require anywhere between four to six weeks off work (depending on the nature of work).



## WOUND CARE

The wound will be closed with dissolving stitches and reinforced with sticky paper strips. The wound must stay covered for 1 week and the dressing changed each day after showering. After one week, the dressing may be removed and left off. The paper strips will fall off over 1–2 weeks.

The wound should heal within two weeks from your surgery. Patients that have other medical problems such as: diabetes, people who need to take daily steroids for other conditions, and those people whose immune system may be compromised, may need additional time for their wounds to completely heal.

If there is any redness, tenderness, swelling or discharge of the wound, the patient should see their GP immediately.

## FOLLOW UP

Dr. Shanu Gambhir will see the patient (with a x-ray) six weeks after the surgery for a post-operative review.