Anterior Lumbar Interbody Fusion (ALIF)

Why do patients have a lumbar fusion?

There are numerous indications for posterior lumbar fusion. These include spinal deformity, spinal trauma, spondylolisthesis, or severe disc degeneration. Spinal fusion can be performed with bone graft alone, bone graft plus screw and rod instrumentation, or with a spacer cage placed within the disc space. The specific indications for which type of fusion you will be receiving will be discussed at your preoperative office visit.

There are minimally invasive techniques and more traditional open techniques, and I choose the technique or combination of techniques that I think will best take care of your specific problem.

Preoperative:

The ALIF procedure involves a small incision in the front of your abdomen, generally from the left side. We are able to move the contents of your abdomen out of the way and access your spine with minimal dissection and significantly less pain than the traditional posterior procedure. During the ALIF procedure I generally work with another surgeon to help me safely get access to the front of the spine. This will be discussed further with you during your preoperative visit.

The ALIF procedure is coupled with posterior image guided robotic pedicle screw instrumentation. Through a few small incisions on your back, screws are placed into the bones above and below the disk being fused, to stabilize the spine while the fusion heals. In some circumstances, depending on your specific condition - we cannot perform percutaneous pedicle screw instrumentation in the back and you may require a larger open procedure. This will be specifically discussed with you during your preoperative visit.

At your preoperative appointment you will be provided a special soap to use on the specific area to be operated on starting 3 days before surgery. Further instructions will be provided during the preoperative appointment.

Surgery:

The ALIF surgery, when performed with posterior image guided robotics or open instrumentation, typically takes about four to five hours to perform, but can take longer in more complex surgeries. You will be under a general anesthetic during this time period. You will most likely stay as an inpatient in the hospital for one to two nights.

If an open posterior procedure is required the surgery will take longer.

On the first post-operative day, you will be assessed by a physical therapist and an occupational therapist, and usually stand and walk a short distance. Prior to discharge, you will be independent in walking, getting in and out of bed, and going to the bathroom. If you have stairs to climb at home the therapist will practice this with you in the hospital prior to discharge.

Post-Operative:

You will have a customized **Pain Plan** that will be formulated during your pre-operative clinic visit. Usually, several different medications are used, and are weaned over a 1-3 week period.

The bandage that you go home with should be kept on for 2 weeks. It is ok to shower as long as your bandage remains clean and dry. If it gets wet or saturated it may require changing. Please give us a call if this occurs.

You may begin a walking program immediately upon discharge. A short 10- to 15-minute walk per day is all that we ask you to do over the first three to four weeks, and you can increase your walking distance as you see fit. Please refrain from any excessive bending, twisting, or lifting over 10 pounds. You will be prescribed a brace to wear after surgery. This brace should be worn when out of bed and can be removed when you are sitting or laying down.

You will be given a follow-up appointment for two weeks following surgery. At this visit we will evaluate your incision and make sure it is healing appropriately. We will also review your X-rays together.

Your second postoperative office visit should occur by six weeks. At this point we will go over your X-rays, and increase your activities as appropriate. Most patients have no restrictions by 12 weeks post-operatively, though we will discuss strategies to protect your back in the long run.

Constipation:

- To prevent constipation you should take the Colace 1 tablet twice a day (stool softener) until you have regular bowel movements, then can take once a day.
- You may also take over-the-counter Sennakot 1-2 tablets twice a day (gentle laxative)
- Take these medications until you have regular daily bowel movements, then decrease to once a day.
- You should hold these medications if you experience loose stool or diarrhea. It is also best to stay well hydrated to avoid constipation.

Blood sugars:
Your blood sugars were monitored prior to meals and 2 hours after dinner. Ideally, post surgery your blood sugars should be less than 130 to help reduce the risk of infection. You can simply decrease your blood sugars by reducing the number of carbohydrate or sugars you eat. At your next PCP appointment, you should discuss your blood sugar. You do not need to continue to check them daily or take insulin at home.

Smoking:
Failure of fusion is as high as 65% in smokers and nicotine users. Therefore, spine patients should not smoke or use nicotine for 6 months after surgery. This is your time to quit.
Do not smoke, as this interferes with bone healing.

CALL IMMEDIATELY IF YOU EXPERIENCE ANY OF THE FOLLOWING:

- Pain that is continually increasing or not relieved by pain medicine
- Any new weakness, numbness, tingling in your extremities
- Any signs of infection at the wound site: redness, swelling, tenderness, drainage
- Fever greater than or equal to 101° F
- Any change in your bowel or bladder function including inability to urinate or bowel or bladder accidents.
- New tenderness in your calf, redness or discoloration of the leg, new shortness of breath, coughing up blood, or chest pain. These may be signs of a blood clot.

Report to the local Emergency Department with chest pain, shortness of breath, difficulty breathing, or any other acute events.
You may not drive while taking pain medications and/or muscle relaxants.