

## **Anterior Lumbar Interbody Fusion (ALIF)**

***Anterior lumbar interbody fusion (ALIF) is a spine surgery that 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.***

### **What Is An ALIF?**



Anterior lumbar interbody fusion (ALIF) is a spine surgery that involves approaching the spine from the front (anterior) of the body to remove all or part of a herniated disc from in between two adjacent vertebrae (interbody) in the lower back (lumbar spine), then fusing, or joining together, the vertebrae on either side of the remaining disc space using bone graft or bone graft substitute.

The graft material acts as a binding medium and also helps maintain normal disc height. As the body heals, the vertebral bone and bone graft eventually grow together and stabilize the spine. Instrumentation such as rods, screws, plates, cages, hooks and wire also may be used to create an “internal cast” to support the vertebral structure during the healing process. Depending on your condition and your surgeon’s training, experience and preferred methodology, an ALIF may be done alone or in conjunction with

another spinal fusion approach. Please discuss your fusion approach options thoroughly with your doctor, and rely on his or her judgment about which is most appropriate for your particular condition.

### **Why Do I Need This Procedure?**

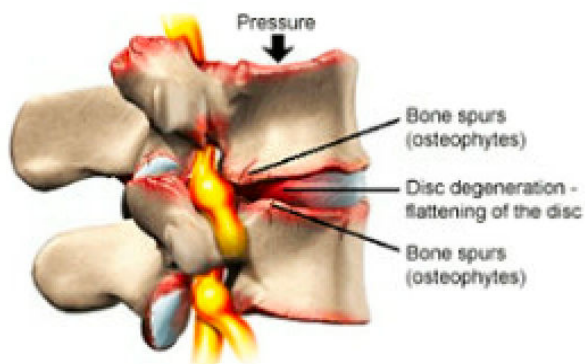
There are a number of reasons your surgeon may recommend spinal fusion. This procedure is frequently used to treat:

- One or more fractured (broken) vertebrae
- Spondylolisthesis (slippage of one vertebral bone over another)
- Abnormal curvatures of the spine, such as scoliosis or kyphosis
- Protruding or degenerated discs (the cartilaginous “cushions” between vertebrae)
- Instability of the spine (abnormal or excessive motion between two or more vertebrae)

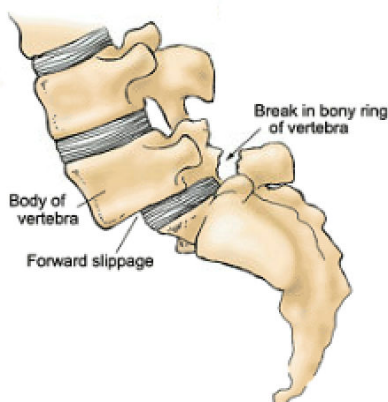
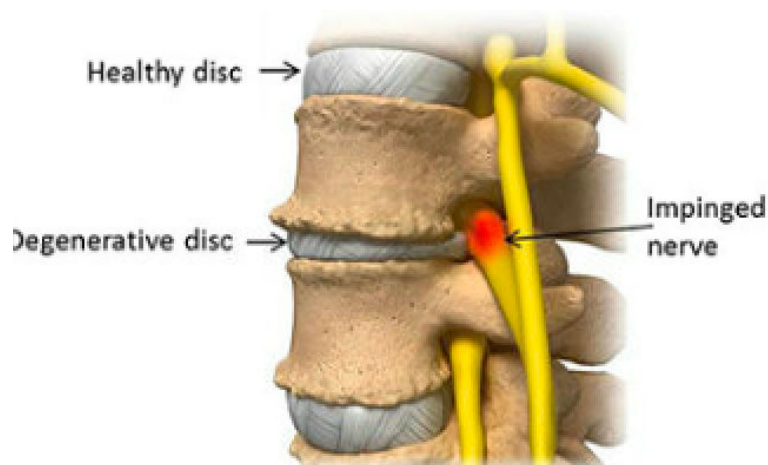
Patients with low back and/or leg pain due to degenerative disc disease, spondylolysis, spondylolisthesis, scoliosis, or other spinal instability that have not responded to non-surgical treatment measures (rest, physical therapy or medications) may be suitable candidates for an ALIF.

Patients without an excessive amount of spinal instability or slippage, and who have little to no spinal stenosis or nerve compression in the back of the spine, are generally the best candidates for an ALIF alone. However, ALIF as a stand-alone technique is usually not recommended for people whose bones have become very soft due to osteoporosis, or in patients with instability or arthritis.

Your surgeon will take a number of factors into consideration before recommending an ALIF, including the condition to be treated, your age, health and lifestyle and your anticipated level of activity following surgery. Please discuss this treatment option thoroughly with your spinal care provider.



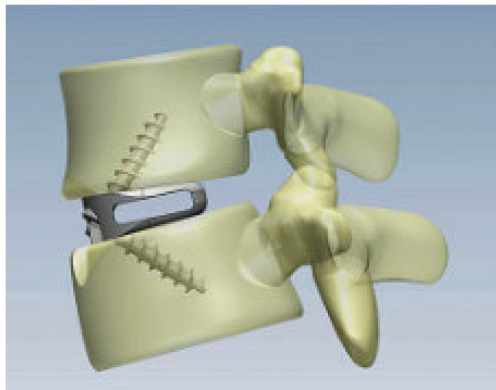
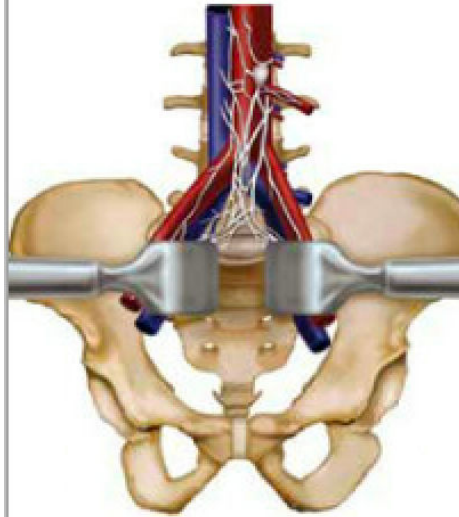
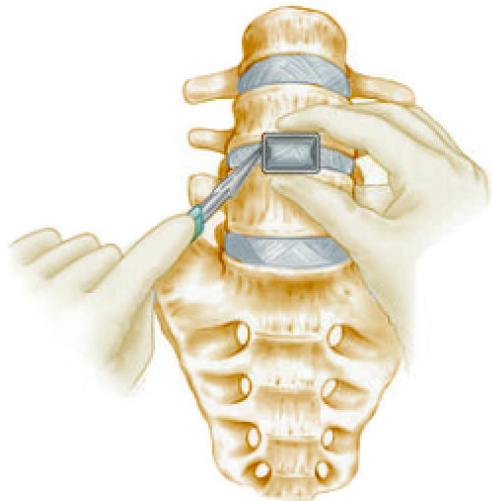
Spondylolisthesis



### How Is An ALIF Performed?

For an ALIF procedure, the patient is positioned on his or her back and sedated under general anesthesia. The surgeon then:

- Makes an incision in the abdomen and retracts the abdominal muscles, organs and vascular structures – including such major blood vessels as the aorta and vena cava - for a clear view of the front of the spine and access to the vertebrae. (This part of the procedure may be performed by a general surgeon or vascular specialist.)
- Removes all or part of the degenerated disc(s) from the affected disc space, and inserts bone graft or bone graft substitute into the disc space between the vertebral bodies, to support the disc space and promote bone healing.
- Returns the abdominal organs, blood vessels and muscles to their normal place, and closes the incision.



### **How Long Will It Take Me To Recover?**

The recovery period for a spinal fusion procedure such as an ALIF will vary, depending on the procedure and your body's ability to heal and firmly fuse the vertebrae together. One advantage of an ALIF is that the back muscles and nerves are undisturbed.

Patients typically stay in the hospital for several days, longer if necessary for more extensive surgery. This may also include time in a rehabilitation unit. Your surgeon will prescribe pain medication as needed, and may recommend a brace and follow-up physical therapy.

The length of time you will be off work will depend on a number of factors: your particular procedure and the physician's approach to your spine, the size of your incision, and whether or not you experienced any significant tissue damage or complications. Another consideration is the type of work you plan to return to. Typically, you can expect to be on medical leave for 3 to 6 weeks; however, many innovations and advancements have been developed in the last few years that allow for improved fusion rates, shorter hospital stays and a more active and rapid recovery period.

Work closely with your spinal surgeon to determine the appropriate recovery protocol for you, and follow his or her instructions to optimize the healing process.

### **Are There Any Potential Risks Or Complications?**

All treatment and outcome results are specific to the individual patient. Results may vary. Complications such as infection, nerve damage, blood clots, blood loss and bowel and bladder problems, along with complications associated with anesthesia, are some of the potential risks of spinal surgery. A potential risk inherent to spinal fusion is failure of the vertebral bone and graft to properly fuse, a condition that may require additional surgery.

Please consult your physician for a complete list of indications, warnings, precautions, adverse effects, clinical results and other important medical information that pertains to the ALIF procedure .

## **Postoperative Guidelines for an Anterior Lumbar Fusion**

### Incision care

- Your incision is closed with sutures (also called “stitches”) on the inside of your skin. These are absorbed over time by your body. The outside of your skin is closed with a skin glue. The skin glue will eventually come off in its own time.
- Sometimes patients may need sutures or staples on the outside of their skin. If you have sutures on the outside, these will be removed at your follow up appointment.
- You may take a shower the day after surgery if your incision is closed with skin glue. If your incision is closed with sutures or staples, you may take a shower in 3 days. Do not scrub your wound, but gently cleanse it and pat dry.
- Do not submerge into water or a tub for 6 weeks.
- Leave the wound open to dry unless otherwise directed.
- It is normal to have a small amount of brown to reddish colored ooze for a few days.
- Do not apply ointments or creams to the incision.
- We recommend wearing a back brace when out of bed and moving around.
- Some patients may also need a bone growth stimulator. If so, the company will contact you after your surgery. If you have questions about this, please contact our office.

### Hospital Expectations after Surgery

- You will start on a liquid diet after your surgery. This is because it is very important for the bowels to wake up after this surgery to avoid an ileus.
- An ileus is an absence of movement in the bowels which leads to a buildup of gas. This requires treatment with medicines and diet control.
- It is important to participate in physical therapy and walk while in the hospital because this helps your bowels to wake up and move normally.
- After you have a successful bowel movement, we will advance your diet.

### Pain Expectations

- It is normal to expect pain after back surgery. That is why we prescribe medication to ease you through the healing process.
- After surgery, common pain areas are in the low back, hips, and around the incision.
- This pain will get better with time as your body heals, so it is important to be patient as your body is healing.

- Many patients report that their prior back pain and/or leg pain is much improved soon after surgery
- It is normal to have a sore throat after endotracheal intubation, and this will improve over the week after surgery.

### Medications

- You will be given prescriptions for a pain medication and a muscle relaxer.
- Do not take pain medication on an empty stomach. This may make you feel nauseated.
- Do not drink alcohol if you are taking pain medication.
- Patients usually require these medicines for at least 4-6 weeks after surgery.
- If you feel that your pain is well tolerated, you may begin to wean yourself off of your pain medication sooner than your post-op visit.
- Because pain medication can cause constipation, it is important to have stool softeners and laxatives at home such as Colace or Senna to prevent constipation
- Take the stool softener daily and use the laxative as needed
- If you still have constipation after using these medicines, you may use an over-the-counter suppository or enema.

### Medications to avoid

- NO Advil, Aleve, Motrin, Naprosyn, Ibuprofen, Naproxen, Mobic, Meloxicam, Celebrex, Diclofenac or any other anti-inflammatory medication. These are anti-inflammatory medications and may impair fusion.
- If you normally take these medications for other medical conditions such as arthritis, we ask that you hold these until otherwise discussed at your office visit.
- NO blood thinners such as Aspirin, Coumadin, Warfarin, Xarelto, Plavix, etc. for 5-7 days after your surgery. We will tell you when you may resume your blood thinners.

### Therapy

- You will receive physical therapy while you are in the hospital. This will help you to walk and move around for normal daily activities before you are discharged.
- When you are at home, walk between 30-60 minutes a day, but not all at the same time. Divide your walks into smaller intervals of 10-15 minutes at a time.
- It is important to walk for your overall recovery for a number of reasons. Getting out of bed is good for your lungs, it prevents blood clots from forming in your legs, and speeds your recovery.
- Do not sit for more than 30 minutes at a time. Move around to prevent your muscles from tightening and becoming stiff, which can lead to more discomfort.
- Use your common sense, if your body says that it is tired, listen to it.

### Restrictions

- Activities such as bending at the waist, lifting >10 lbs, and twisting are restricted during your recovery period, which is about 6 weeks.
- This means NO household chores such as vacuuming and laundry, hobbies such as golfing, and yard work and gardening.
- If you have young children or grandchildren, do NOT pick them up.
- Allow someone else to help you at home.

- You may drive as long as you are not taking narcotic pain medication.
- It is ok to ride as a passenger if you are taking narcotic pain medication.
- If you are unable to work due to these restrictions, please let us know if we need to complete any paperwork for your employer.

### Diet

- When you have a successful bowel movement, you may advance your diet to solid foods.
- It is important to remember to eat and drink fluids so that your body may properly heal.
- If you are experiencing nausea, follow a “BRAT diet” which is Bananas, Rice, Applesauce, Toast and advance as tolerated.

### Smoking

- Smoking constricts your blood vessels which carry oxygen and nutrients to your healing bone and muscles.
- It also slows down the bone healing process and may possibly lead to failure of fusion of the bone graft, which is the ultimate goal of your surgery.
- If you would like help in smoking cessation, please let us know.

### Sexual Activity

- Back and neck pain can interfere with your sex life, but we want you to resume normal relations with your partner as soon as possible after surgery. We recommend avoiding sex for 6 weeks after surgery. Once you have begun the healing process, use the position that is most comfortable. You may find that lying on your back is the most comfortable if you can support your partner’s weight or your partner can support him/herself with arms and knees. Side lying may also be comfortable since neither partner is bearing the burden of the weight. Decide if a small pillow at the waist is helpful in supporting the spine and you will probably want a pillow located under your neck and head. Be careful not to twist the lower back. Be sure you communicate your fears and concerns with your partner before you resume sexual relations.

### Call our office if you have any of these symptoms:

- Fever > 101 degrees
- Constipation that is not relieved by stool medications
- Redness, warmth, or significant drainage from your incision
- Shortness of breath or Chest Pain
- Pain, swelling, or redness in your calves
- Unexplained incontinence or accidents involving your bladder or bowel, or if you are unable to urinate
- Worsening pain radiating down the leg

### Follow up appointment

- We have scheduled a follow up appointment for you that is 4-6 weeks after your surgery
- You will be provided with a card listing the date and time
- If you need this appointment changed, please call our office
- If you are experiencing any problems or have any questions, please call Morgan at ext. 203

## **6 Tips for Recovery from Spine Surgery**

1. Put commonly used items within reach.

In the early stages of recovery from spine surgery, patients should avoid bending, lifting, and twisting. It is helpful to place items you use daily on the countertops or shelves where you can easily reach them. Keep toiletry items near the sink. Place dishes on the kitchen counter. You may choose to purchase disposable plates, cups, and cutlery to avoid the need to wash dishes for the first few days after you return home.

2. Arrange for someone to stay with you.

If you live alone, it is a good idea to have a friend or family member stay with you for the first few days after surgery. You may need help with errands or getting around the house. If you require more extensive help after surgery, our office may arrange for home health services.

3. Prepare meals ahead of time.

It can be difficult to prepare healthy meals the first few days you are recovering from back surgery. Prepare your meals ahead of time that you can keep in your freezer. You should also stock your refrigerator and pantry with healthy snacks so you are not tempted to reach for unhealthy convenience foods.

4. Items like slip-on shoes and grabbers can help to avoid bending.

Bending is restricted after surgery. You may want to have shoes that you can easily slip on to avoid bending over to tie your shoes. If you are doing physical therapy exercises or walking for longer periods of time, you may want to have someone help you lace up your shoes instead of wearing slip-on shoes. Grabbers are hand-held devices that are about 2-3 feet long and have a grabber on the end to pick up small items. They can be purchased at large department stores and pharmacies.

5. Take precautions to avoid slipping.

Patients are encouraged to get up and walk around to avoid stiffness. You will want to make sure to avoid any slipping hazards in your walking path. Before surgery, make sure that the areas where you will be walking are clear of tripping hazards. Electrical cords should be secured and out of the way. Rugs should be removed or taped down. A shower mat can help avoid slipping in the shower.

6. Make sure you have extra pillows for support when sitting or lying down.

When lying on your back, a pillow placed under the knees can help to take pressure off your lower back. If you prefer to lay on your side, you can place a pillow between your knees. Reclining chairs and donut pillows can sometimes help to increase a patient's comfort while sitting.

By taking time to prepare yourself and your home before surgery, it will help to ease your mind to know that everything is in place for you when you return home from surgery

