Central Texas Spine Institute, LLP
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Austin, Texas 78731
512 795-2225

Posterior Lumbar Interbody Fusion (PLIF)
Frequently Asked Questions

When considering the indications for lumbar spine fusion, low back pain that lasts for more than six months is the most general indication. The indications for fusing the low back occur primarily in situations where there is a large deformity, such as:

mechanical back pain (usually attributed to disc degeneration)
spinal stenosis (narrowing of the spinal canal)
spondylolisthesis (slippage of one vertebra on another)
fractures
tumors
scoliosis

Diagnostic Tools

Patient history
Physical Exam
X-Rays, Magnetic Resonance Image (MRI) or CT Scan
Discogram
EMGs

Treatment Alternatives

Medications
Continue to live with condition
Physical therapy (Exercises and stretching)
Chiropractic Manipulation
Epidural Steroid Injections (ESI)
TENS Units

Purpose of Procedure

The primary purpose of this procedure is to stabilize the spine (stop the motion) by restoring the disc height and alignment with metal cages and fusing the vertebra together using the patient's own bone or a genetically engineered substance known as Bone Morphogenetic Protein (BMP).

Bone for Fusion

There are currently two primary alternative sources for the bone needed for the spinal fusion. Traditionally, some of the patient's own bone has been harvested from the iliac crest (pelvic bone). This technique produces excellent results for the fusion.
Early in 2003, the FDA approved a genetically engineered bone substitute for use in spinal fusions. Under the brand name, InFUSE, BMP converts stem cells into bone forming cells and stimulates rapid growth of bone at the targeted site. Using BMP eliminates the need for harvesting the patient's own bone and speeds up the fusion process.

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Using either form of bone graft can yield a high rate of fusion, but neither is 100 %. BMP has tended to give better rates of fusion than other graft materials, including pelvic bone.

What are the cages made of?

Metal cages are usually made of titanium. Newer cages are being made of carbon fiber and special inert synthetic compounds. These do not set off airport screening detectors.

Posterior (Back) Approach Disadvantages

Substantial retraction of the nerve roots is necessary for the surgeon to gain access to the disc space. Significant traction can injure the nerve root and has the potential to result in chronic leg and back pain. The pain associated with this type of nerve root injury can be severe, and there are no effective options for treatment.

There are numerous veins (epidural veins) over the disc space, and surgery in this area creates the potential for excessive blood loss during the surgery. This very rarely occurs.

Who will be involved in procedure?

Surgeon - The orthopedic surgeon that you have been seeing in our office will be the primary surgeon, in charge of your surgery.
Assistant Surgeon - Another orthopedic surgeon, usually from our office, will assist your orthopedic surgeon with the procedure. This is done to minimize the length of time you are under general anesthesia and to provide the necessary assistance with the actual surgical procedure.
Anesthesiologist - The doctor who actually administers and monitors the anesthesia is a critical part of the surgical team. You will normally meet with the Anesthesiologist during your Pre Op appointment at the hospital.

Length of Surgery

One to two hours is typical for a one or two-level posterior fusion procedure.

Hospital Stay

With most spinal surgeries, patients are up and walking within hours after their procedure, although the walking is very limited. It is no longer necessary, or recommended, that you lie in bed for days or weeks after spine surgery. Nurses who are experienced in working with spinal surgery patients will assist you during your first few efforts at getting out of bed and walking.
Your doctor will tell you when it is safe to shower after surgery. Showers are usually allowed 2-3 days after surgery. Soaking in a bathtub is not allowed.

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Incision Care

The nursing staff at the hospital will show you how to keep the dressing dry and in place to protect the incision while showering. The wound should not be submerged in water (pool or tub) until it has healed and has been cleared by your doctor. The nurse will change the dressing after your shower, and again later if necessary.

Your surgical incision will be checked during your first Post Op appointment. However, should your incision become red, tender or drainage occurs, prior to your first scheduled Post Op visit, you should contact our office for instructions.

Nutrition

Liquids are allowed right after surgery. Solid foods are not started for several days. Your doctor will give you specific instructions.

How much pain should I expect and how is it treated?

Your doctor's goal is to keep you as comfortable as possible. Almost all strong pain medications are narcotics that tend to make you sleepy and can depress your breathing. We must balance the side effects with our goal to relieve pain. In the hospital (IV) patient controlled medications are given the first day. We then switch to oral medications. You will have pain pills for home use, also. We continue home medications as needed, with the goal of weaning them as you recover. It is important to tell your doctor of any allergies to medicines and to only use pain medications as directed. Mixing medications can be dangerous. <u>We do not refill pain medications after hours or on weekends.</u> You must ask ahead 1-2 days if you are going to run out of pain pills. Refills of medications are at your doctor's discretion.

Return to Routine of Normal Daily Living

It normally takes approximately 3 to 6 months for the fusion to occur. During that time you should avoid strenuous activities that might affect the fusion process.
During the rehabilitation process it is important to recondition the muscles with exercise, stretching and aerobic conditioning. Your doctor will give more specific instructions during the course of your post-operative care during your office visits.
Driving is not allowed until after your first post-op visit (Usually 7-10 days). Most patients are able to go up and down stairs when they go home from the hospital. Some patients may require additional assistance.

Return to Work

Return to work is determined for each individual patient based upon several factors. The doctor's goal is to help you return to work as soon as you can do so safely. If you have a light or sedentary job or if light duty restrictions are available, then return to work could occur in 10-14 days. If you are able to work from home by phone, fax and computer, very early work may be realistic. If your job is very

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Return to Work (continued)

heavy and strenuous, return to work can take several months. Other factors that play a role in return include your overall physical condition, tolerance of pain and need for additional therapy.

Even the best results of surgery do not mean that you will necessarily be able to return to your prior type of job. Some patients are advised to go through job re-education or find a lighter job for future back safety.

Return to Routine of Normal Daily Living

It normally takes approximately 3 months for the fusion to occur. During that time you should avoid strenuous activities that might affect the fusion process.

During the rehabilitation process it is important to recondition the muscles with exercise, stretching and aerobic conditioning.

Risks and Potential Complications

Infection
Bleeding
Complications from Anesthesia
Continued Low Back or Leg Pain
Fusion May Not Occur (higher incidence of non-fusion in patients who smoke)
Hardware (i.e. cages may break or come loose)
Numbness
Nerve Damage
Weakness
Loss of Sexual Function
Infertility
Death

No Guarantees

No guarantees can be made as to the success of this procedure.

Other Educational Resources

www. spine-health.com
www.spineuniverse.com
www.spine-surgery.com