

Patient Instructions: Posterior/ Transforaminal Lumbar Fusion

Surgical Technique

Posterior (or Transforaminal) Lumbar Fusion is a surgical procedure that approaches lumbar discs from the back of the spine through a small incision(s). Its goal is to relieve pressure on the nerve roots or on the spinal cord and/or treat a painful disc. The disc (s) are removed and pressure is taken off of the nerve roots and spinal cord using an operating microscope and microsurgical technique. After removing the disc, a small spacer is inserted into the disc space. This may be made from donor bone, PEEK (a body-friendly polymer spacer), or from bone taken from the patient's body. The bone or mixture of bone fills the disc space and, ideally, joins or fuses the vertebrae together. The graft is usually held in place with rods and some screws. Over time, the vertebrae grow together; this is called fusion. It usually takes a few months for the vertebrae to completely fuse, but can take up to a year or two. Please visit www.bnasurg.com for more information.

Before Surgery

- Seven days prior to surgery, please do not take any anti-inflammatory NSAID medications (Celebrex, Ibuprofen, Aleve, Naprosyn, Advil, etc.) as this could have adverse effects on your spinal fusion and prolong your bleeding time during surgery.
- Do not eat or drink anything after midnight the day before surgery. This means nothing to drink the morning of surgery except you may take your normal medication with a sip of water if needed. This includes your blood pressure medicine, which in general should be taken. Consult your surgeon or primary care doctor regarding insulin if you take it.
- Please do not be late to check in on the day of surgery or it may be cancelled.
- Please bring your preoperative folder with you to the surgery and have it when you check in.
- If you have a copy of your MRI or x-rays, please bring these with you to the surgery even if your surgeon has already seen them or might have a copy. Surgery may be cancelled if we do not have your radiographic images.
- Please be aware that smokers are recognized to have a significantly higher risk of postoperative wound healing problems, as well as operative and postoperative bleeding. Smoking disrupts the normal function of basic body systems that contribute to bone formation and this could result in higher non-union rates. Smokers must understand and agree to discontinue smoking for at least two weeks before and after surgery. Although it helps to stop smoking for several weeks before and after surgery, this does not eliminate the increased risk resulting from long-term smoking.

After Surgery

You may experience pain during the first few weeks after spine fusion. You should expect soreness at the incision site, which should go away in time. Some patients may have leg pain after the surgery because the nerve was pulled aside. These symptoms also should gradually improve.

Activity Level

- Walking is the best exercise after back surgery. It strengthens back and leg muscles, increases endurance, relieves stress and most importantly - helps to keep proper blood flow, the bowels moving and keeps fluid from building up in the lungs. Soon after surgery, a patient is encouraged to get up and walk and gradually increase the distance. The sooner a patient becomes active, the sooner he/she will resume their normal routine. While activity is encouraged, the lumbar spine should be protected, and the activity level should be increased at a slow but steady pace.
- Do not lift more than 5-10 pounds for the first few weeks after surgery. This may be increased to approximately 20 pounds after 4-6 weeks. Do not lift anything greater than 20 pounds for the first 3 months.
- Avoid prolonged upright sitting on hard surfaces or long car rides (more than 2 hours) for 2–4 weeks.
- You may drive as soon as it is comfortable to do so, which is usually after about two weeks following discharge from the hospital. You should not drive while under the influence of pain medications.
- Limited bending or twisting of the lumbar spine is advised. If physical therapy has been prescribed, you are not to do range of motion, flexion, extension, or lateral bending until fusion has been documented.
- If a brace is prescribed, it should be worn at all times except while showering and should be replaced immediately thereafter.
- Avoid activities with a potential for falling or physical contact until cleared by your surgeon.

Bandage

- Bandage (if present) may be removed the second day following surgery.
- Steri-strips should be left intact on the incision until returning to clinic or for your postoperative follow-up 7-14 days following surgery.

Drain

- If you are discharged with a drain, you will need to track the daily output of the drain. You will be instructed prior to hospital discharge how to care for the drain and empty it. Almost all drains are removed within 7 days after surgery, but individual cases vary. **IF YOU HAVE A DRAIN, please NOTIFY the BNA office (303 938 5700) of the drain output EVERY OTHER business day, unless instructed otherwise.**

Bathing

- You may shower on third day following surgery.
- Try to limit showers to no more than 5–7 minutes.
- Do not scrub the wound. Let water run over the incision, then pat dry with clean towel.
- Do not soak in a bathtub, hot tub or pool for at least 2 weeks.

Diet (Narcotic pain medications are very constipating, be proactive with stool softeners and laxatives)

- A high fiber diet is recommended.
- Avoid straining on the toilet. Keep stools soft with a high fiber diet and/or use of prune juice, Metamucil, Fiber One cereal etc.

Pain Medications

- Do not take NSAID medications (Ibuprofen, Naprosyn, etc.) or Cox-2 inhibitors (i.e. Celebrex) for 3-6 months following surgery. These medications may delay or prevent proper fusion of the spine.
- Tylenol can be taken as needed.
- Narcotic pain medications are prescribed if Tylenol is inadequate
- You should not let pain get out of control before taking medication or it will be less effective.
- We will not refill pain medications over the weekend or after hours. Anticipate the need for medication refills.

Follow-up

- Call Boulder Neurosurgical Associates' (BNA) office (303-938-5700) to schedule your routine postsurgical visit for 7-14 days after surgery. Other follow-ups will be scheduled as needed; we generally follow patient for at least 2 years after surgery, often longer.
- Please call your physician's office immediately with any problems or go to the emergency room if:
 - Drainage and increased pain at the incision site
 - Fever greater than 101.5 degrees F
 - Swelling and tenderness develops in your legs
 - New, persistent pain and weakness or numbness in your back and legs
 - Problem controlling your bladder and bowels

Other FAQs

How long will I be in the hospital? This varies depending on the type of surgery performed. For single, two and some three level surgeries, you will likely go home on the day of the surgery. Otherwise, you will go home the following day. We have found that patients generally prefer the comforts and support that home offers. The sooner you go home, the lower your risk of complications such as hospital-acquired wound infections, blood clots and urinary tract infections.

How much time off from work? The amount of time needed for recovery prior to returning to work varies depending on the surgery, your job and you as an individual. Typically, 1-2 weeks for jobs that are at a desk or sedentary is sufficient, but patients should ask their surgeon for an individual recommendation. To return to physically demanding jobs will be at the discretion of your surgeon.

When can I resume driving? Driving is acceptable approximately 2 weeks after surgery depending on the use of pain medication. We generally recommend that you not drive while taking pain medications following the surgery.

Will I wear a brace? The use of a lumbar brace varies depending on the surgery and the patient. If a brace is prescribed, it should be worn at all times except while showering and should be replaced immediately thereafter.

Will I need pain medications? We will prescribe pain medications and other peri-operative medications on the day of surgery or prior to your discharge from the surgery center or hospital.

Will I need Physical Therapy? We usually recommend physical therapy and will refer you to a therapist at your first postoperative visit. Limited bending or twisting of the lumbar spine is advised. If physical therapy is prescribed, you are not to do range of motion, flexion, extension, or lateral bending until fusion has been documented. Refrain from high impact activities such as running, horseback riding, or any radical side-to-side motions. A good rule is 'If it hurts don't do it'.

What kind of follow-up is required? Patients return to our office for routine follow up appointments at intervals that are determined on a case-by-case basis. We typically see patients back in the office within a couple weeks following surgery and then increase this to several months followed by an annual exam. Your individual needs will be determined by your surgeon at each follow-up visit.

Do I need antibiotic prophylaxis for dental procedures? We recommend avoiding routine dental procedures for 3 months following spinal and other neurological surgeries. This includes teeth cleaning at your dentist office. You should brush your teeth as you normally do.

If you must have a dental procedure within 3 months, then it would be advisable to use an antibiotic prophylaxis. We generally do not make recommendations about the choice of antibiotic when using it for prophylaxis, but we would be happy to discuss this with your primary care physician.

After 3 months, prophylactic antibiotics are not recommended prior to dental procedures to prevent infections except for specific individuals with extenuating circumstances, where the determination and prescription are made by the patient's primary care physician or dentist.

patient that are at risk for infective endocarditis should use preventative antibiotics before dental procedures after consulting with their cardiologist or primary care physician.