

POSTERIOR LATERAL FUSION—LUMBAR

PROCEDURE

A Posterior Lateral Fusion (PLF) is spine surgery performed to treat disabling back pain, leg pain, leg weakness or numbness, or spinal instability. During this procedure, your surgeon will remove the pressure on the nerves and will then fuse 2 or more of the vertebrae in the spine.

Many different types of spine fusions are possible. Depending on your specific condition, your surgeon may recommend one of a variety of different fusion techniques. These techniques include Posterior Lumbar Interbody Fusion (PLIF), Transforaminal Lumbar Interbody Fusion (TLIF), and Posterior Lateral Fusion (PLF).

During a Posterior Lateral Fusion, the surgeon first removes the abnormal bone and ligament compressing the nerves and then places a bone graft between the transverse processes, or wings, on each side of the vertebra. Your surgeon may or may not recommend Bone Morphogenetic Protein (BMP). Using BMP for posterior lumbar fusion surgery is an off-label use, which means it was not the purpose originally approved by the FDA, but was later found to be an effective treatment. Your surgeon will discuss this use with you if you feel you need more information. Your surgeon will use medical screws and rods to help keep the spine in alignment while the bones fuse.

With the fusion, the bone graft should grow together, or fuse, into a solid unit within 9-12 months. Depending on your diagnosis, your surgeon may recommend different fusion techniques. The surgeon will talk with you about these techniques before your surgery.

NON-SURGICAL OPTIONS

Surgery is not always necessary. Although most lumbar problems are painful, they are usually not dangerous. Even though your physician has offered you the option of surgery, the decision is yours. Some alternatives to surgery include the use of anti-inflammatory medications, physical therapy, weight loss, smoking cessation, activity restriction, pain medication, injections, and time.

RISKS OF SURGERY

After surgery and recovery, you may not feel you have gotten the kind of pain relief you expected. It is important to remember that there is no guarantee this surgery will provide the pain relief you want. As you and your surgeon discuss this procedure in the office, your condition, and any risks for surgery complications, will be assessed and fully explained to you.

While complications from surgery are uncommon and can be serious, they may include:

- Heart or lung problems from general anesthesia, which could be fatal;
- Bleeding, which could require a transfusion;
- Infection, which could require IV antibiotics and another operation;



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(Risks of Surgery, continued)

- Damage to the covering of the nerve, which causes spinal fluid leakage, and which could require a drainage procedure or another operation;
- Damage to the nerves, causing paralysis or permanent nerve damage, although this is rare; and long-term risks include a change from leg pain to a disabling low back pain; and
- Deep vein thrombosis (DVT), or postoperative complications.

Long-term complications include nonunion (the vertebrae don't mend or fuse together as they should) or displacement of the fusion (the fusion shifts position), as well as failure of the medical hardware, which may require another operation. Additionally, the medical devices inserted during surgery may become painful and require removal. The surgery could also accelerate normal aging changes in the vertebrae adjacent to the fusion.

SURGERY DATE AND TIME

When you decide to have this surgery, you will receive a surgery date and tentative surgery time. Then, on the working day before your scheduled operation date (on Friday for a Monday surgery, for example), you will receive the exact time of your surgery. Your surgeon's office will call you by 3–5 p.m. to give you this time and make you aware of the time you need to arrive at the hospital. **Because confirmed surgery times are unavailable to us until the day before your scheduled surgery, we appreciate your patience and understanding with this timing.**

Before your surgery, preoperative testing will need to be completed. To ensure medical clearance and testing such as blood work and EKG are completed, the surgical facility will contact you and will schedule an appointment. If your surgery is scheduled at an outpatient surgery center, you may receive an order for preoperative testing to be done at your primary care office or local hospital.

BEFORE SURGERY INSTRUCTIONS

This important checklist will help to ensure that you are prepared and ready for your surgery. Please read it and ask your surgeon if you have any questions.

- If you take any blood thinners, for example Coumadin, Aspirin, Plavix, Xeralto, Eliquis, or Ticlid, **make sure your surgeon is aware of this medication, as soon as possible.** You will be given specific instructions regarding any need to discontinue or modify your current use of any blood-thinning medication. If necessary, your surgeon will get clearance from your cardiologist or other physician to ensure that this medication change is safe and appropriate for you, based on your heart history, including prior heart attack, stent placement, or open-heart surgery.



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(Before Surgery Instructions, continued)

- Stop taking aspirin-based products 1 week before surgery. Also, stop taking non-steroidal anti-inflammatory drugs, such as ibuprofen, Naprosyn, Naproxen, Advil, and Motrin, at least 1 week before surgery.
- **Please do not eat or drink anything after midnight the day of your surgery.** This includes water, coffee, chewing gum, and hard candies. You may brush your teeth with toothpaste the morning of surgery.
- Some daily medications may be taken the day of surgery with a sip of water. Medications that are appropriate to take (the morning of surgery) will be discussed with you by the hospital staff or your surgeon's nurse.

DAY OF SURGERY

Please review all the information in your patient folder, including the map with directions regarding parking locations and outpatient registration in the hospital. This will help you arrive at the hospital for check-in at the designated time provided by your surgeon's office.

Your family may stay with you in the preoperation room until your scheduled surgery time.

AFTER SURGERY

After your surgery, you will be in the recovery room for at least 1–2 hours. When you first wake up from the anesthesia, your throat will feel sore, and you will feel cold, thirsty, and groggy. Intravenous (IV) lines will be connected to supply your body with fluids.

After time in the recovery room, you will be transferred to your hospital room. Your family can return to spend time with you.

You will be permitted to get out of bed on the day of surgery, and your nurses will assist you. To enhance your recovery, your physical therapy activities will begin the day after your surgery.

DISCHARGE

You will be discharged after specific healing and physical therapy goals have been met, and you feel ready to go home. Typically, you will go home 2–3 days after a PLF surgery.

A follow-up appointment will be scheduled with your surgeon, approximately 4 weeks after your surgery.

After you return home and are fully mobile, you may remove the support hose worn on your legs.

BRACE

Usually a brace is not required after a PLF procedure. However, if your surgeon orders it, a brace may provide comfort. The brace can be worn whenever you are out of bed, but it is not necessary when you are in bed or sitting up in a chair.



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(Brace, continued)

If your bone density is weaker than normal, then your surgeon may consider putting you in a brace after surgery.

MANAGING YOUR PAIN

You may have pain at the site of your incision or back pain during the first few days after your surgery. To help you manage your pain, when you leave the hospital you will be given a prescription for pain medication. Pain from surgery will change in intensity as you heal. This is normal and expected. Your back pain should slowly improve as the healing process occurs and your fusion becomes more solid. This may take a few months. As this healing progresses, consider these pain management techniques to help you gain control of your pain level.

- After any acute surgical pain has improved, you should gradually discontinue use of the prescribed pain medication, which is often a narcotic. Prolonged use of such prescription narcotics will reduce your body's production of natural pain-fighting chemicals. When this medication is used for an extended period of time, you may develop a tolerance to it, resulting in the need for higher levels of pain medication.
- Once the pain begins to subside and you no longer need the prescription pain medication, Tylenol and Tylenol-based products are safe to use. However, you should avoid non-steroidal anti-inflammatory drugs, such as Celebrex, Motrin, Ibuprofen, Advil, and Aleve. While each of these are important medications for a variety of pain control needs, they can prevent bone fusion. These medications can be safely resumed 3–6 months after your surgery.
- Ice may be used for discomfort as needed.

INCISION CARE

You will leave the hospital with a waterproof dressing on your incision site. This dressing should remain in place for 1–2 days after you return home. Under the dressing will be steri-strips, which are small adhesive strips across the surgical incision. Leave these steri-strips on the incision and allow them to fall off naturally; this usually occurs within 2 weeks. If after 2 weeks the steri-strips have not fallen off, you should remove them.

After removing the dressing, your incision can be open to the air. It is important for a family member to examine your incision each day for 1 week after surgery to monitor it for any changes as the healing process continues.

If staples or sutures were used to close your incision, they will need to be removed 10–14 days after your surgery. Please call your surgeon's office at (317) 396-1300 to schedule an appointment for this removal.



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BATHING

You may shower any time after surgery, but pay attention to your body and don't shower if you are feeling lightheaded or tired. Simply pat your incision dry after your shower and leave the incision open to the air under your clothing.

Do not take tub baths or Jacuzzi baths, and do not go swimming for the first 3 weeks after your surgery.

CONSTIPATION

General anesthesia, inactivity after surgery, and pain-relieving prescription narcotics may cause constipation after surgery. It may be helpful to take a stool softener and/or laxative after surgery. These medications, which include Colace, Miralax, and Senokot, may be purchased over the counter at your local pharmacy.

EXERCISE

After leaving the hospital, physical therapy is not necessary for most patients. Your best therapy is walking, which increases blood flow to the spine and assists in the healing process. Try walking on a structured basis, beginning slowly at first and progressing on a regular basis as your pain begins to lessen.

If your recovery is slower, you may need additional therapy after surgery. If needed, physical therapy will be discussed with you at your follow-up appointment. Be aware that physical therapy will not begin until fusion has occurred 3–6 months after your surgery.

RESTRICTIONS

To protect your health and help you feel better as soon as possible after surgery, your surgeon suggests these important restrictions:

- **Do not drive for at least the first 2–4 weeks after surgery.** We recommend you drive only when you are no longer taking pain medications and when you can comfortably turn your body far enough to drive safely using the car's mirrors.
- **Do not lift anything heavier than 10 pounds** until you see your surgeon at the follow-up appointment 4–6 weeks after your surgery.
- **Do not do things that require repetitive bending, twisting, or lifting.** Such activities include laundry, sweeping, vacuuming, shoveling, or yard work. When you are moving, remember to use good body mechanics, which includes using your legs instead of your back when lifting.
- **Do not smoke:** it is not healthy for your back or your body's healing abilities.
- **Please avoid nonsteroidal anti-inflammatory drugs,** such as Celebrex, Motrin, ibuprofen, Advil, and Aleve. These medications may hinder the bone growth needed for the fusion occurring after your surgery.



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FOLLOW-UP APPOINTMENT

If you do not have a postoperative office appointment when you leave the hospital, call your surgeon's office to schedule one. The appointment should be made for approximately 4–6 weeks after your surgery.

If you have questions before your postoperative appointment, please do not hesitate to call your surgeon's nurse or secretary.

CALL THE SURGEON IF YOU EXPERIENCE ANY OF THESE SYMPTOMS:

- Signs or symptoms of infection, including redness, wound drainage, worsening pain, or a fever of more than 101 degrees;
- New or worsening leg weakness, pain, numbness, or tingling as compared to before surgery;
- Difficulty with bowel or bladder function; and
- Calf or leg swelling, tenderness, or redness.

If you have any questions or problems, please do not hesitate to call our office at (317) 396-1300 (or Toll Free (888) 225-5464).

Form updated January 2018



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BRAIN AND SPINE