

Lateral Lumbar Interbody Fusion (LLIF) — Patient Guide



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What to expect before, during, and after your side-approach lumbar spine surgery

What is a Lateral Lumbar Interbody Fusion (LLIF)?

Lateral Lumbar Interbody Fusion (LLIF) is a minimally invasive spine surgery performed through the side of the body. This approach avoids cutting through major back muscles, allowing the surgeon to access the spine with less tissue disruption. The procedure is used to relieve nerve compression, restore disc height, and stabilize the spine by placing a cage filled with bone graft between the vertebrae. Additional screws or rods may be added for stability.

Why is LLIF Performed?

- Treat degenerative disc disease or severe disc collapse causing back and leg pain.
- Stabilize the spine in cases of spondylolisthesis (vertebra slipping forward).
- Correct spinal deformities like scoliosis or imbalance.
- Relieve pressure on spinal nerves by restoring disc height and opening nerve spaces.

Benefits & Goals

- Smaller incision and less muscle disruption compared to traditional open surgery.



- Less blood loss and shorter hospital stay in many patients.
- Faster initial recovery and return to walking.
- Improved alignment and spinal stability.

Risks & Possible Complications

While LLIF is generally safe, there are risks to be aware of:

- Infection, bleeding, blood clots (DVT/PE).
- Temporary thigh or groin numbness, tingling, or weakness due to working near the psoas muscle and its nerves.
- Hip flexor weakness that typically improves over days to weeks.
- Nerve injury (rare but possible).
- Failure of bone fusion (nonunion).
- Hardware issues such as loosening or breakage.
- Persistent pain despite surgery.
- Injury to nearby abdominal structures or blood vessels (very rare).

Before Surgery: How to Prepare

7–10 Days Before Surgery

- Stop taking medications on the 'Medications to Avoid' list, especially NSAIDs and blood thinners.
- Always confirm with your prescribing doctor before stopping medications.

1–3 Days Before Surgery

- Arrange transportation and someone to assist you at home for the first few days.
- Prepare your home by clearing walkways and creating a safe resting area.

Night Before / Day of Surgery

- Follow fasting (NPO) instructions carefully — no food or drink after midnight unless directed.
- Shower as instructed. Avoid lotions or creams near the surgical area.
- Bring your ID, insurance card, and medication list.
- Leave valuables and jewelry at home.
- Avoid all nicotine products, as they slow bone healing and increase infection risk.



Day of Surgery: What to Expect

- You will meet with the surgical and anesthesia teams to review the procedure.
- The surgery is performed through a small incision on your side (flank region).
- The damaged disc is removed, and a spacer (cage) filled with bone graft is placed between the vertebrae.
- Additional screws or rods may be added from the back or side for stability.
- Most patients begin walking the same day or the next morning.
- Hospital stay is typically 1–2 nights, depending on your recovery.

After Surgery: The First Weeks

Pain & Medications

- Expect soreness at the side incision and in nearby muscles.
- Thigh or groin tingling or numbness is common and usually temporary.
- Hip flexor weakness may occur but typically improves within weeks.
- Your care team will use a multimodal pain plan to limit narcotic use.
- Avoid NSAIDs unless approved by your surgeon, as they can interfere with fusion.

Walking & Activity

- Walk frequently, starting the day of or day after surgery.
- Gradually increase walking distance each day to promote healing and prevent blood clots.
- Avoid bending, lifting more than 10 lbs, or twisting for at least 6 weeks ('no BLT').
- Sleep on your back or side with pillows for comfort.

Incision Care

- Keep the side incision clean and dry.
- You may shower once approved by your surgeon. Gently pat dry — do not scrub.
- Do not apply creams, lotions, or ointments.
- No soaking in tubs, hot tubs, or pools for 6 weeks.

Return to Work & Activities

- Desk work: usually 2–4 weeks, depending on pain and energy levels.



- Light duty or standing jobs: 4–6 weeks.
- Heavy labor or physically demanding work: 8–12+ weeks, with surgeon clearance.
- Driving: resume when off narcotics and able to move safely, usually around 2 weeks.
- Sexual activity: typically safe after 2 weeks, avoiding uncomfortable positions.

Follow-Up Schedule

- First visit: approximately 2 weeks after surgery to check incision and early recovery.
- Second visit: around 6 weeks to review healing and discuss activity progression.
- Additional visits at 3 months, 6 months, and as needed to monitor fusion progress.

When to Call the Office Immediately

- Fever over 101.5°F (38.6°C) or chills.
- Worsening leg weakness, numbness, or severe new thigh pain.
- Increasing redness, swelling, or drainage from the incision.
- Severe, unrelieved pain.
- Signs of blood clot: calf pain/swelling, sudden shortness of breath, or chest pain.

Frequently Asked Questions

Why does my thigh feel numb or weak after LLIF?

The surgical approach passes near nerves in the psoas muscle. Temporary numbness or hip flexor weakness is common and usually improves within a few weeks.

How soon can I return to normal activities?

Walking begins right away, but bending, lifting, and twisting are restricted for the first 6 weeks. Desk jobs may resume in 2–4 weeks, while heavy work takes longer.

Will the hardware set off airport detectors?

Most spinal implants do not trigger alarms, but it is possible. If questioned, you can explain you have surgical hardware.

