

Anterior and Lateral Lumbar Interbody Fusion Understanding Your Risks

This document explains the possible complications for patients undergoing a combination of **anterior lumbar interbody fusion (ALIF)** and **lateral lumbar interbody fusion (LLIF) with pedicle screw fixation**. These are spine procedures in which the lumbar disc is removed through either an incision in the lower abdomen (anterior approach) and/or a small incision in the patient's side (lateral approach). A spacer (interbody cage) filled with bone graft is placed between the vertebrae. Supplemental stabilization is achieved through placement of screws and rods through small incisions in the back to provide additional support. The usual purpose of surgery is to **relieve nerve compression, improve pain and neurologic symptoms, restore disc height, spinal stability and alignment, and promote solid fusion** in patients with conditions such as degenerative disc disease, spinal stenosis, spondylolisthesis, deformity, instability, or recurrent disc herniation.

Risks:

- **Neurologic complications** (new or worsened numbness, weakness, nerve injury, femoral or non-femoral neuropraxia, or cauda equina injury)
- **Transient neurological symptoms** (thigh or groin pain, numbness, hip flexor weakness—more common with lateral approach)
- **Persistent neurological deficit**
- **Psoas muscle weakness or irritation** (lateral approach)
- **Dural tear with cerebrospinal fluid leak**
- **Wound infection** (superficial or deep)
- **Pseudoarthrosis** (nonunion or failure of fusion)
- **Hardware complications** (screw or rod loosening, breakage, malposition, cage migration, or subsidence)
- **Graft-related complications**
- **Adjacent segment degeneration or disease**

- **All-cause reoperation**
- **Ileus or bowel dysfunction**
- **Retrograde ejaculation** (in males, associated with anterior approach)
- **Visceral injury** (bowel, ureter)
- **Psoas or retroperitoneal hematoma**
- **Major vascular injury** (arterial or venous injury, bleeding)
- **Medical complications** (myocardial infarction, stroke, pneumonia, pulmonary embolism, deep vein thrombosis)
- **Pneumothorax**
- **Death** (extremely rare)

Risk Factors for Increased Complications:

- **Higher number of lumbar levels fused**
- **Revision or prior lumbar spine surgery**
- **Advanced age and higher ASA class**
- **Medical comorbidities** (diabetes, tobacco use, obesity, osteoporosis)

Patient Acknowledgment:

By signing below, you acknowledge that you understand the above risks associated with combined anterior and lateral lumbar interbody fusion with pedicle screw fixation and all questions have been answered to the patient's satisfaction.

Signature: _____ **Date:** _____

Patient Name: _____ **DOB:** _____

