



LUMBAR SPONDYLOLISTHESIS

Patient Decision Guide



**SUMMIT
ORTHOPEDICS**

ABOUT LUMBAR SPONDYLOLISTHESIS

Spondylolisthesis is a condition associated with the thick, oval segments of bone that form the front of each vertebra, also known as vertebral bodies. It occurs when one vertebral body slips over the vertebral body below it, often in a forward direction. The nerves travel through a hole behind the vertebral body, and as one bone slides forward on another, it can pinch the nerves that travel in between them. Types of spondylolisthesis include:

- » Degenerative spondylolisthesis
- » Isthmic spondylolisthesis

WHAT CAUSES SPONDYLOLISTHESIS?

Degenerative spondylolisthesis: As people age, the shock-absorbing disc in the front of the spine wears out and begins to collapse. This leads to progressive wear and tear of the joint in the back of the spine (facet joint). The facet joint thickens as the disc and joints develop arthritis; the spine can become unstable and one bone can slip forward on another bone and can pinch the nerves.

Adult isthmic spondylolisthesis: A small stress fracture or break in the small segment of bone that joins the facet joints in the back of the spine (pars interarticularis) can occur when people are young. This stress fracture unhooks the joints from the vertebra and over time one bone can start to slide forward and fall down upon another bone. This results in pinching of the nerves as they exit the spine (neuroforamen).

WHAT ARE THE SYMPTOMS?

Degenerative spondylolisthesis:

- » Pain in the lower back, legs, or buttocks
- » Leg fatigue when walking or standing
- » Pain worsens with standing and walking, and feels better when sitting down or when leaning forward such as on a shopping cart

Isthmic spondylolisthesis:

- » Low Back Pain
- » Electrical/radiating pain down one or both legs
- » Worse standing/walking, better when sitting

NONSURGICAL TREATMENT OPTIONS

In order to compare and determine the best treatment for you, here is a summary of the possible next steps once spondylolisthesis has been diagnosed:

NO TREATMENT/OBSERVATION

Depending on how severe and what caused the condition, some patients begin to get better on their own. If symptoms do not begin to subside within 6 weeks, or if they consistently keep you from performing activities of daily living, additional treatment options should be discussed. This is to make sure the right treatment happens at the right time to get the best results.

ACTIVITY CHANGES

Patients with spondylolisthesis may experience relief with some lifestyle changes. If specific activities make your symptoms worse, then avoiding those activities can provide relief. Patients who don't smoke, drink moderately if at all, and maintain healthy weight with regular exercise are more likely to experience the best results. These behaviors can also increase the effectiveness of other treatments such as medication.

○ ADVANTAGES

- + no surgical risks
- + low to no cost
- + minimal time investment in recovery

✘ DISADVANTAGES

- may require modifying away from quality-of-life -enhancing activities

MEDICATION

Some medications can be used to help reduce pain and swelling. These include anti-inflammatory medications, oral steroids, or neuroleptic medications. Note that Summit Orthopedics does not offer long-term narcotic medication pain management.

○ ADVANTAGES

- + can be a lower-cost option
- + less-invasive treatment option

✘ DISADVANTAGES

- some medications and supplements can cause a harmful reaction with pain medications and therefore may not be an option for all patients

PHYSICAL THERAPY

Physical therapy aims to strengthen muscles and improve range of motion, with the desired result of reducing pain and improving function. Physical modalities such as deep heating treatment and electrical stimulation may help relieve pain from muscle spasms. While it may not be an available option for everyone depending on the severity of the condition, if effective, therapy can have long-term benefits.

○ ADVANTAGES

- + increases in range of motion, strength, and mobility
- + nonsurgical option

✘ DISADVANTAGES AND SIDE EFFECTS

- time commitment
- doesn't address pain the short-term

INJECTIONS

Injections can help relieve pain and improve function by relieving inflammation, irritation, and swelling. It may help you be able to participate in a physical therapy program designed to strengthen muscles and improve range of motion.

○ ADVANTAGES

- + cost-effective
- + nonsurgical option
- + shorter recovery time
- + can address the root cause of pain

✘ DISADVANTAGES AND SIDE EFFECTS

- possibility of allergic reaction or side effects such as headache
- temporary pain at injection site

SURGICAL TREATMENT OPTIONS

In patients who continue to have symptoms after trying nonsurgical methods of treatment, surgery may be considered. Surgical treatment has been shown to result in a significant reduction of pain and improvement in function and overall quality of life.

DECOMPRESSION (LAMINECTOMY)

The aim of this surgery is to relieve lower body pain by addressing nerve impingement (pinching), which makes it an ideal procedure for patients whose main symptoms are related to nerve issues. This is also an option for individuals with well-maintained spinal stability. The spine is accessed from the back, and the bone in the back of the spine is removed to access the spinal canal. Arthritic bone spurs and thickened ligament are then removed to fully decompress the nerves. A decompression (without fusion) must be considered carefully because decompressing an already unstable section of the spine can lead to both poor outcomes and a need for more surgery. In selected cases, a decompression can be a successful surgery.

SPINAL FUSION

This option is the treatment of choice for most patients that need surgery for spondylolisthesis. The intention of the surgery is to relieve the pressure on the nerves while providing stability and potentially improving alignment. This can be done by a surgical approach through the back of the spine, the abdomen, or both. Surgery typically involves decompressing nerves by removing bone in the back of the spine and then stabilizing the bones with metal rods and screws. Over time, the bones will heal together as one.



Summit Orthopedics is the first surgery center in the nation to receive the prestigious

CERTIFICATE OF DISTINCTION IN THE MANAGEMENT OF SPINAL FUSION

by The Joint Commission for superior patient outcomes and quality of care.

POSTERIOR SPINAL FUSION (PSF)

The spine is approached from the back. Typically a decompression (laminectomy) is performed, which is then followed with screws and rods being placed to stabilize the bones. The bone edges are roughed up to create some light bleeding, and a bone graft is placed over the bleeding bone edges. The bone graft may come from a cadaver, a local bone removed during decompression, or from a separate area of the patient's body such as the iliac crest. Over time, the bone graft will heal to the roughed-up bone edges and form a fusion.

ANTERIOR LUMBAR INTERBODY FUSION (ALIF)

In this procedure, the spine is accessed from the abdomen, and it is often performed by an abdominal surgery specialist such as a general surgeon or vascular surgeon. The front of the disc is cut, and the entire disc is removed. The bone edges are roughed up to create some light bleeding, and then a contoured block of bone or synthetic cage is fit into the disc space. This helps lift the bones apart and remove pressure from the nerves. Screws can be used to fix the cage in place. An ALIF is often followed by a surgery through the back of the spine to put in screws and rods and to decompress nerves.

TRANSFORAMINAL LUMBAR INTERBODY FUSION (TLIF)

The spine is approached from the back. During a TLIF, the disc is removed from the back of the spine. The disc space is then packed with bone graft and a synthetic cage. The cage acts to lift the bones apart and can help restore alignment, provide additional surface area for fusion, and help to decompress nerves. Over time, bone will heal through the disc space to fuse the bones together. Titanium screws and rods are placed similar to a PSF.

○ ADVANTAGES

- + improved pain, mobility, and function
- + return to quality-of-life improving activities
- + better enables health-promoting activity

✘ DISADVANTAGES AND SIDE EFFECTS

- high cost
- recovery time for patient and caregivers
- surgical and anesthesia risks

BACK SURGERY PATIENT RESULTS

EXPECTED OUTCOMES OF SPINE SURGICAL TREATMENT*

Patients can expect improvement in bodily pain with surgery compared to nonsurgical management.

Improvement in physical function with surgery compared to nonsurgical management.

Surgical treatment had significantly greater improvement in pain and function as compared to nonsurgical treatment. The improvement was maintained through eight-year follow-up.

RISKS OF SURGERY FOR LUMBAR SPONDYLOLISTHESIS*

8% total complication rate

15% of patients require another operation at 4 years

3% infection/wound problem

9% of patients experience a dural tear

5% of patients have a later recurrence of spinal stenosis (compression of nerve roots in the spinal canal)

2% of patients have failure to heal (pseudoarthrosis)

Risks listed above are common. There are many more risks associated with surgery; speak with your surgeon.

MAKING A TREATMENT DECISION—DETERMINING YOUR VALUES

Your personal values are just as important as the medical facts. Think about what matters most to you in this decision, and place an “x” in the box for each row below that indicates which goal is more important to you.

○ REASONS TO HAVE SPINE SURGERY	« MORE IMPORTANT	EQUAL	MORE IMPORTANT »	✕ REASONS NOT TO HAVE SPINE SURGERY
I understand that surgery has risks. But I am comfortable with the idea of having back surgery, because there is a chance that it might help.				I don't like the idea of surgery at all, because of the risks and the chance that it might not help.
I've tried exercises, medicines, and working with a physical therapist, and I don't think they have helped me.				I think the exercises I've been doing or the medicines I'm taking are starting to help.
I'm in a lot of pain and I don't see how I can stand it much longer.				My pain isn't bad enough that I need to have surgery right now.
It is very important that I get my pain under control so that I can go back to work as soon as possible.				Time is not a problem for me. If I get better slowly using exercises and/or medicine, that's OK with me.
I'm not worried about how much this surgery will cost.				I don't have insurance and I don't see how I can afford this surgery.
Other:				Other:

GETTING TO A DECISION

<p>After reading and completing the above, which way are you leaning regarding your treatment options for your condition?</p> <p>A. Leaning toward having spine surgery</p> <p>B. Leaning toward <i>not</i> having spine surgery</p> <p>C. Undecided</p>	<p>Do you feel you know enough about your condition and the treatment options available, including surgery, to make a decision?</p> <p>A. Yes</p> <p>B. No</p>	<p>Do you feel you have enough support, advice, and resources to make the best decision for you?</p> <p>A. Yes</p> <p>B. No</p>
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NEXT STEPS

Use your responses above to help guide the discussion during your next appointment with your provider.

*To view the complete list of sources cited for patient surgical result statistics, please visit <https://www.summitortho.com/back-surgery-patient-results/>