Life Spine®

MICRO INVASIVE TLIF

Minimally Invasive Spine
Transforaminal Lumbar
Interbody Fusion

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MI TLIF

Minimally Invasive Spine
Transforaminal Lumbar
Interbody Fusion

PATIENT INFORMATION

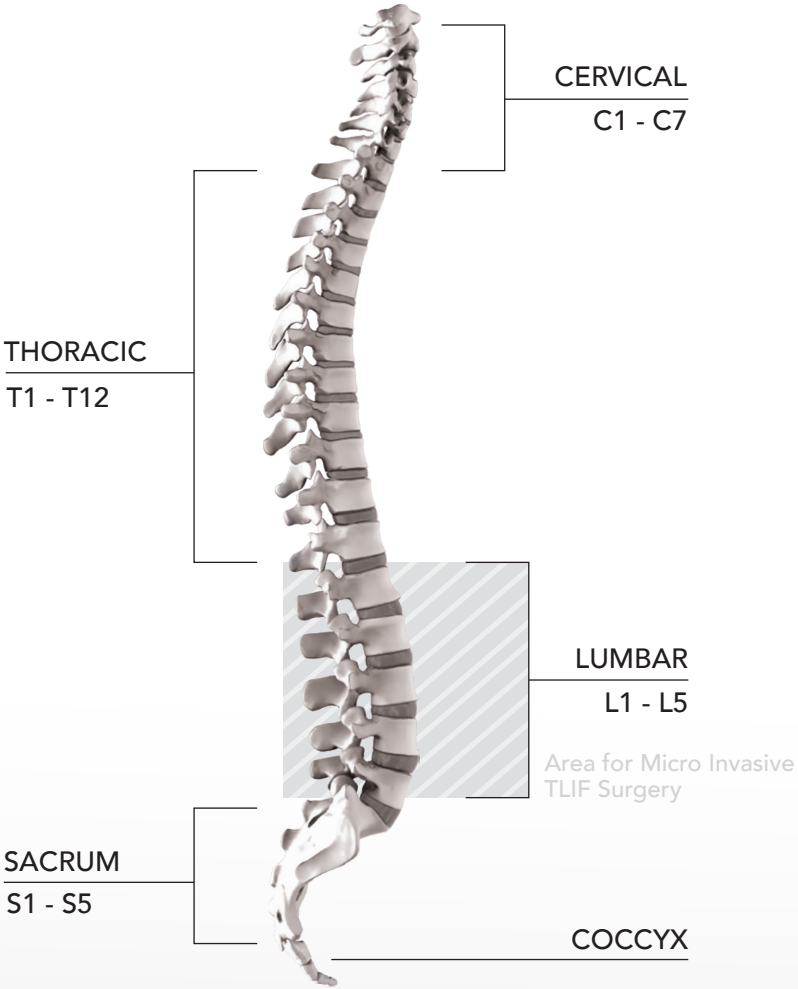
This brochure will help you understand more about:

- Anatomical features and conditions of the spine
- Information about surgical treatment of the lumbar spine
- Micro Invasive TLIF surgical approach
- What to expect before and after surgery

Receiving medical treatment is individualized to the patient's anatomy and symptoms. Information in the booklet may not apply to your condition, treatment, or outcome as surgical techniques vary with surgeon preference. It is important to discuss all options before you and your physician decide which treatment option is right for you.

This booklet is not intended as a replacement for professional medical care and meant only as an educational resource. Please consult your physician for clinical results and all other important medical information that pertains to this procedure.

SPINE ANATOMY

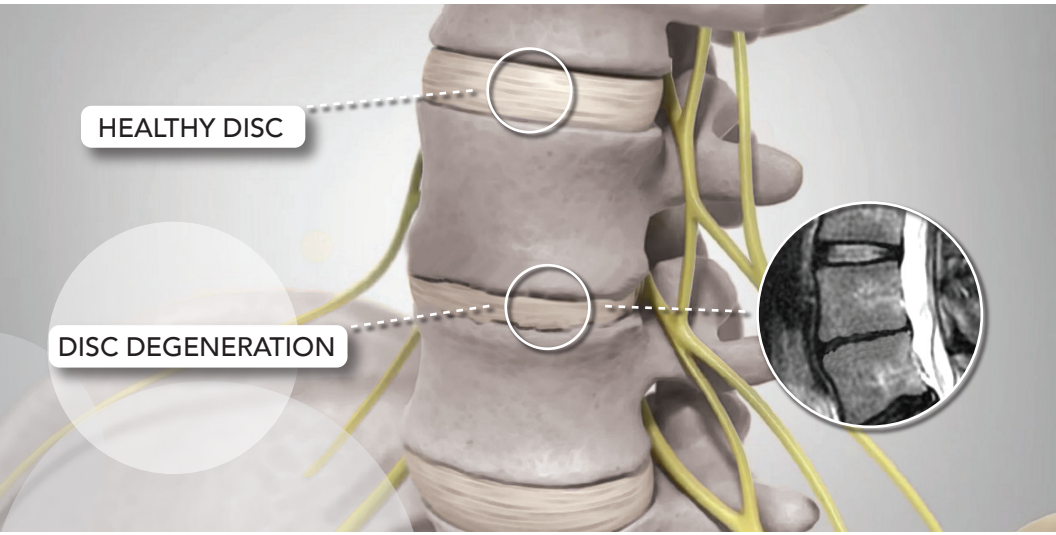


LUMBAR SPINE

The area of the spine in the lower back is known as the lumbar spine. It is made up of five vertebrae (L1-L5) and holds the majority of the body's weight. These vertebrae are connected by several joints, which allow the body to bend, twist, and lift. Discs separate each vertebra and are comprised of two parts, a tough and fibrous outer layer (Annulus Fibrosus) and a soft and geletenous center (Nucleus Pulposus). These discs allow the spine to move, and also provide shock absorption.

GENERAL SPINE CONDITIONS

There are several primary causes of spine problems. The majority of the symptoms are caused by disc, bone, or ligaments pressing onto the nerve roots or spinal cord.



DEGENERATIVE DISC DISEASE (DDD)

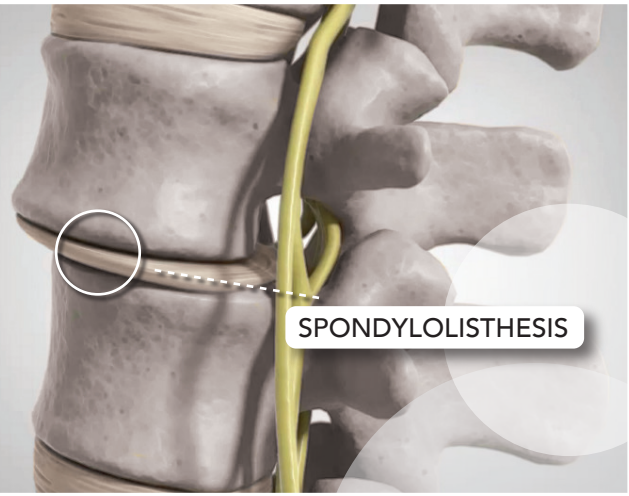
Degenerative disc disease is a weakening of one or more intervertebral discs, which normally act as a cushion between the vertebrae. This condition can develop as a natural part of the aging process or from a traumatic experience. Some people may experience pain, numbness or tingling in the legs. Pain may be worsened while bending, twisting or sitting. Lying down generally relieves pressure on the spine.

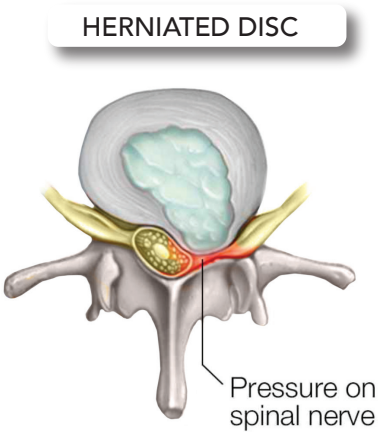
Symptoms of degenerative disc disease:

- Back, buttocks, or leg pain that is often worsened by moving
- Low back pain intensified by prolonged sitting or standing
- Pain radiating through the hips and into the legs

HERNIATED DISC

Degeneration or injury can cause cracks and tears in the outer layer of the intervertebral disc. The gel inside the disc can be forced out of these cracks and tears, causing the disc to bulge (protrusion), break open (extrusion), or break into pieces (sequestration), putting pressure on a nerve root or the spinal cord.





SPONDYLOLISTHESIS

Spondylolisthesis is a condition where one vertebrae slips forward or back over the vertebrae below it. This condition may develop as a natural part of the aging process, but it may also result from injury to the back. Some symptoms include low back pain, muscle spasms, thigh or leg pain, and weakness. Most people with spondylolisthesis do not experience any symptoms or pain.

Symptoms of spondylolisthesis:

- Lower back or buttocks pain
- Numbness or weakness in one or both legs
- Pain radiating down one or both legs due to pressure on nerves

TREATMENT

Often degenerative disc disease can be successfully treated without surgery. Physical therapy, chiropractic treatments, or anti-inflammatory medications may provide relief of these troubling symptoms. Surgery may be recommended if conservative treatment options do not provide relief within three months. There are many surgical options depending on the severity of degenerative disc disease, be sure to speak to your physician about which option is best for you.

WHAT IS MICRO INVASIVE TLIF?

Transforaminal Lumbar Interbody Fusion (TLIF) is a surgical technique that attempts to eliminate pain, restore height and provide stability to the Lumbar Spine. An interbody cage is used to restore the disc height between the vertebral bodies. Screws and rods are then placed to fixate the spine until fusion occurs. A Micro Invasive (Minimally Invasive) approach is a less invasive method by which to perform surgery. The difference between an "open" and a "Micro Invasive" approach is that the Micro Invasive approach is a smaller incision which requires less retraction of the muscles and soft tissue and, therefore, potentially reduces muscle pain and recovery time post-surgery.[1]

1:orthoinfo.aaos.org/en/treatment/minimally-invasive-spine-surgery

WHY MICRO INVASIVE TLIF?

- Less invasive
- Less potential blood loss[1]
- Potential faster recovery[1]
- Minimized scarring[1]
- Reduced hospital stay[1]

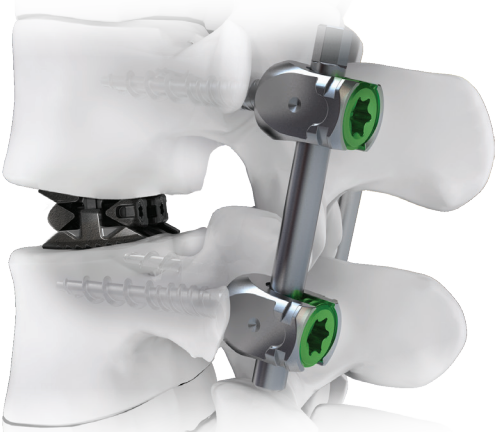
WHAT IMPLANTS WILL BE USED?

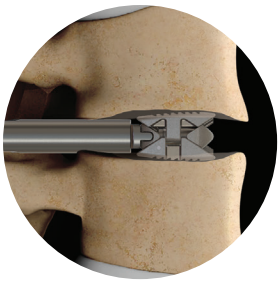
Below are some examples of implants that may be used during your Micro Invasive TLIF procedure:

AVATAR®
MIS Screw Fixation System

PROLIFT®
Expandable Interbody Cage

IMPLANTATION VIEW





1:orthoinfo.aaos.org/en/treatment/minimally-invasive-spine-surgery

WHAT WILL HAPPEN *BEFORE* SURGERY?

Your physician will discuss your treatment plan including any medications, physical therapy, or supportive assistance needed after the procedure. Your physician as well as the hospital will supply you with instructions on how to prepare for the surgery itself.

WHAT WILL BE DONE *DURING* SURGERY?

1 PREPARATION

Your physician will begin by having you lie down on the surgical table in the prone position (lying on the stomach). An x-ray will be taken to identify the affected disc.

2 APPROACH

A 1 inch incision is made on each side of the low back, directly over the involved spinal levels. Tissue and muscle are gently retracted to gain access to the affected disc and place the screws and rods to help stabilize the spine.

3 DISC PREPARATION

The affected disc will then be removed to allow for a sufficient fusion of that particular level.

4 IMPLANT INSERTION

The appropriate size implant is chosen to fill up the space once occupied by the disc and is often times slightly larger in order to restore the appropriate disc height. This implant is often times filled with bone graft to help fusion occur.

5 SUPPLEMENTAL FIXATION

Screws and rods will be placed into the lumbar spine. A biologic or bone graft may then be placed at the surgical site to help fusion occur.

WHAT TO EXPECT *AFTER* SURGERY?

A 1 to 2 day stay in the hospital is typical after this procedure. Your physician will discuss what is right for your individual case. Your physician may recommend you to use a brace for a short period of time. Under supervision of trained medical professionals, your physician may ask you to sit, stand or walk within 24 hours of the surgery. After discharge from the hospital, you can expect to have limitations on your activities as determined by your health care provider. Your physician will prescribe any necessary pain medication and will provide instructions regarding exercise, wound care and appropriate activity.

FREQUENTLY ASKED QUESTIONS

CAN I SHOWER AFTER SURGERY?

Ask your physician as to any showering restrictions that may apply to your particular situation.

WILL I HAVE A SCAR?

Ask your physician to discuss the incisions made during the procedure, small scars at the surgical sight are common.

WHEN CAN I DRIVE?

You may be asked to not drive for a period of time after the surgery. Your physician will instruct you as to when you can drive again.

CAN I TRAVEL?

Be aware that metal implants may be used in your procedure and could possibly activate a metal detector. Ask your physician to provide a patient identification form.

WHEN WILL I BE ABLE TO RETURN TO WORK?

Individual recovery time will vary. Other factors such as individual job duties and physical requirements will apply. Consult your physician for specific recommendations.

HOW LONG WILL I HAVE RESTRICTED ACTIVITIES?

You can expect to have activities limited in a period usually reaching 6 months post operation. Your physician will give you specific instructions related to restricted activity.

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Life Spine®

13951 S. Quality Dr. Huntley, IL 60142
Phone: 847.884.6117 Fax: 847.884.6118
www.lifespine.com

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Doc. No. TB-063016 Rev B.
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