



# ALIF

Anterior Lumbar  
Interbody Fusion

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## PATIENT INFORMATION

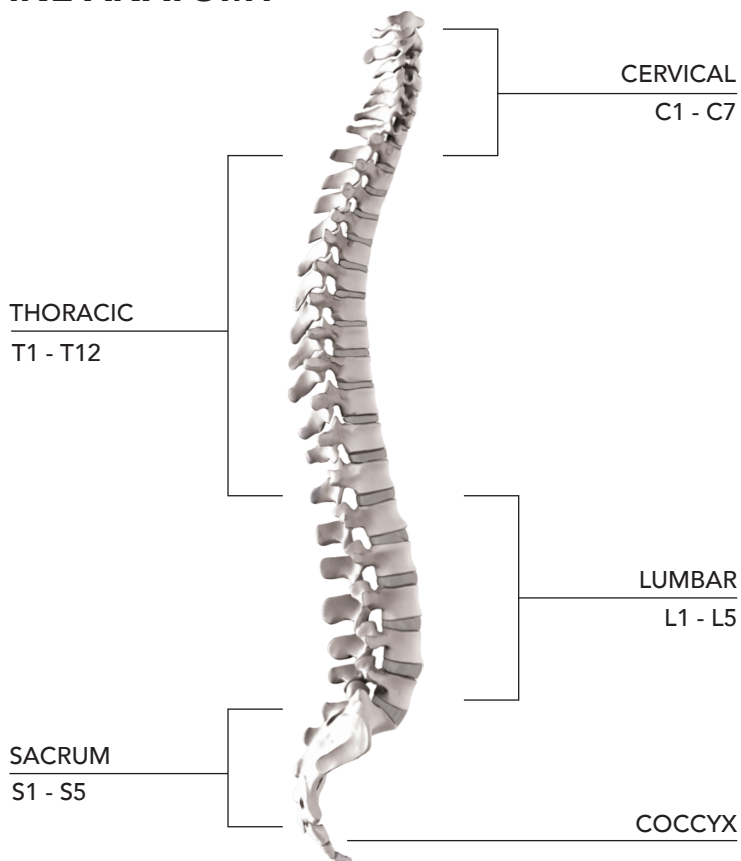
This brochure will help you understand more about:

- Anatomical features and conditions of the spine
- Information about surgical treatment of the lumbar spine
- ALIF 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



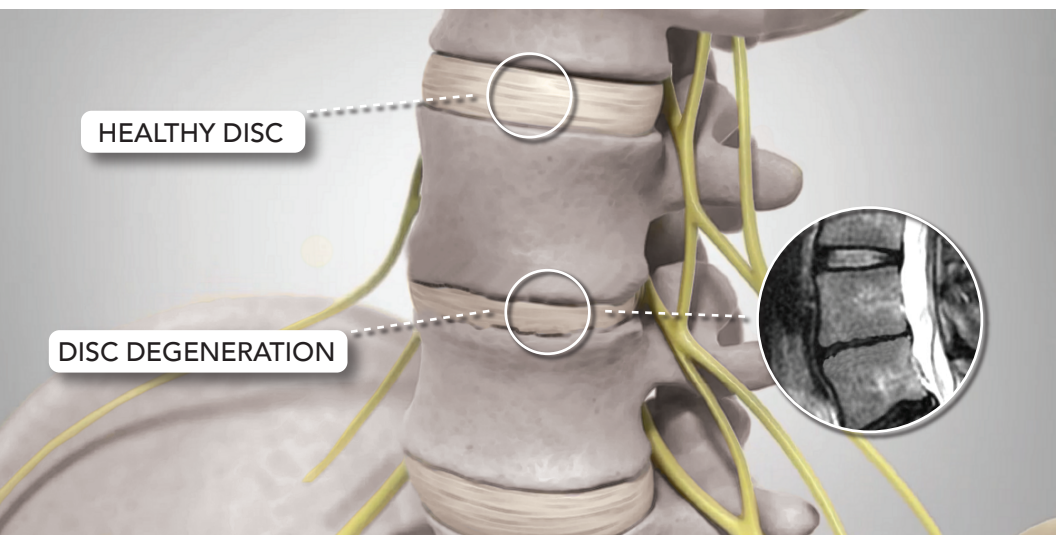
## LUMBAR SPINE

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, the Annulus Fibrosus and 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)

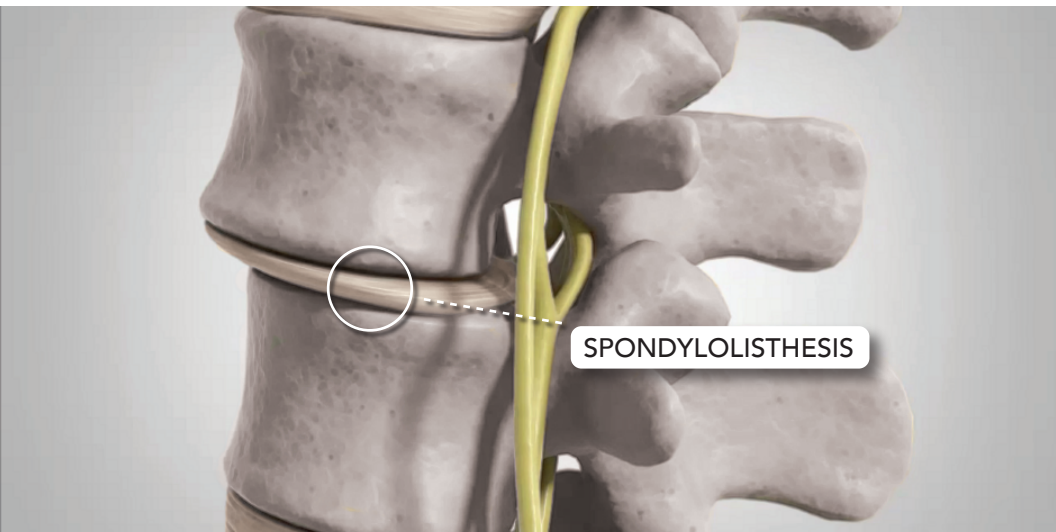
Degenerative disc disease is a weakening of one or more intervertebral discs, which normally act as a cushion between the vertebrae. This condition can develop as a natural part of the aging process or from a traumatic experience. Some people may experience pain, numbness or tingling in the legs. Pain 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 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.

## WHAT IS ALIF?

ALIF stands for Anterior Lumbar Interbody Fusion which is the joining of two bones together. The unhealthy disc is removed, then replaced with an interbody, plate and screws or an integrated plate-interbody and screws for stabilization while fusion occurs. The primary goal of the procedure is to relieve pressure on either the nerve roots or spinal cord and/or treat a painful disc.

## WHY ALIF?

- May increase long-term stability
- Larger graft volume may increase fusion potential
- Avoids back muscles
- Potentially limits spinal cord retraction

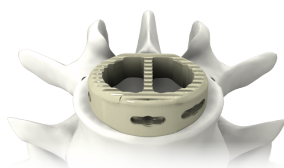
## WHAT IMPLANTS WILL BE USED?

Below are some examples of implants that may be used during your ALIF procedure:



DYNA-LINK®

OR



PLATEAU®-A

AND



PRESIDIO®

## 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 supine position (lying on the back). An x-ray will be taken to identify the affected disc.

## **2** APPROACH

A 3-8cm incision is made slightly to the side of the stomach. The exposure stage is performed by the vascular surgeon to retract the muscles and great vessels to gain access to the affected disc.

## **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.

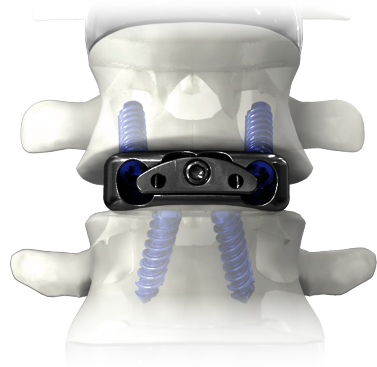
## **5** SUPPLEMENTAL FIXATION

Depending on your physician's technique, screws may be inserted through an integrated plate-interbody or a plate to help stabilize the spine while fusion occurs.

## POST SURGICAL VIEW



PLATE AND SCREWS



INTEGRATED  
PLATE-INTERBODY  
AND SCREWS

## WHAT TO EXPECT **AFTER** SURGERY?

Patients usually require a stay of 3-4 days in the hospital. Your physician will discuss with you what is right for your particular case. Supervised by trained medical professionals, your physician may ask you to carefully sit, stand, or walk within 24 hours of the surgery. Once you are discharged from the hospital, it is important to limit your activities for a period of time (determined by your healthcare provider) to give your body a chance to heal. Your physician will discuss with you any pain medications to take home, as well as a prescribed program of activities. Your physician will provide instructions on wound care, exercises, and limitations to postoperative 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 your procedure. Small scars at the surgical site are common.

### *WHEN CAN I DRIVE?*

You may be asked to refrain from driving 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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This image shows a full page of white paper with horizontal grey ruling lines. The word "NOTES" is printed at the top left in bold black capital letters, preceded by a vertical orange bar. There are 21 horizontal lines in total, creating 20 equal rows for writing.





# ALIF

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13951 S. Quality Dr. Huntley, IL 60142

Phone: 847.884.6117 Fax: 847.884.6118

[www.lifespine.com](http://www.lifespine.com)



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