

An introduction to

ALIF

Anterior Lumbar Interbody Fusion

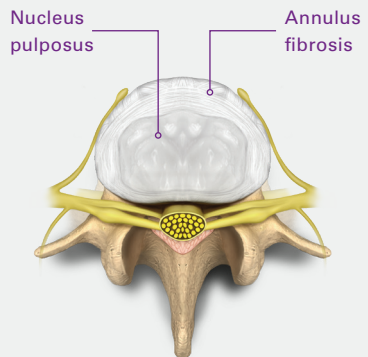
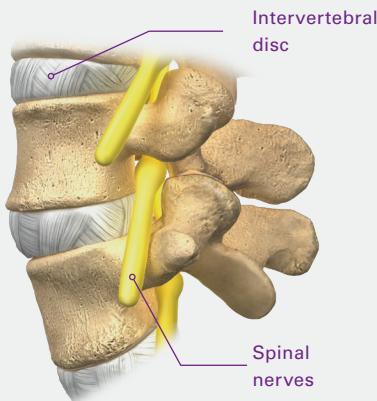
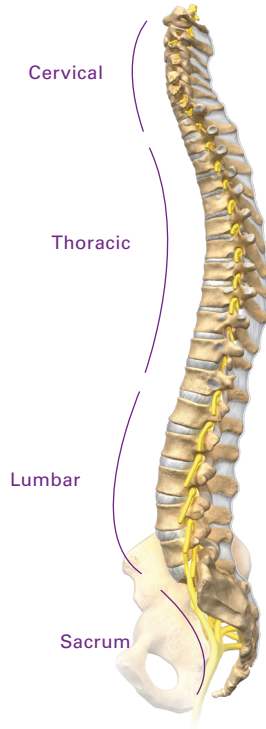
This booklet provides general information on ALIF. It is not meant to replace any personal conversations that you might wish to have with your physician or other member of your healthcare team. Not all the information here will apply to your individual treatment or its outcome.



About the spine

The human spine is made up of 24 bones or vertebrae in the cervical (neck) spine, the thoracic (chest) spine, and the lumbar (lower back) spine, plus the sacral bones.

Vertebrae are connected by several joints, which allow you to bend, twist, and carry loads. The main joint between two vertebrae is called an intervertebral disc. The disc is made of two parts, a tough and fibrous outer layer (annulus fibrosis) and a soft, gelatinous center (nucleus pulposus). These two parts work in conjunction to allow the spine to move, and also provide shock absorption.

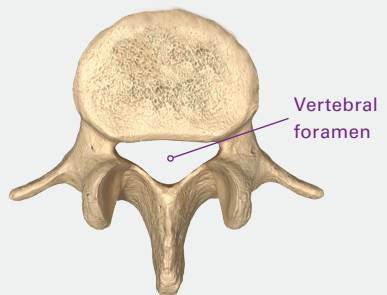
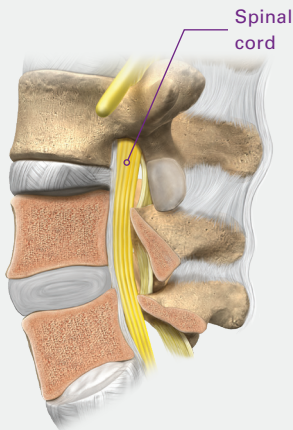
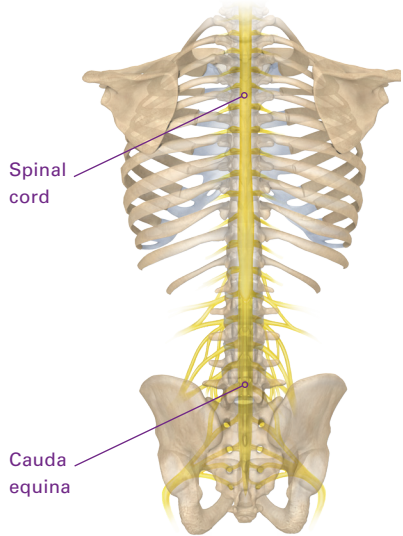


About the spinal cord and cauda equina

Each vertebra has an opening (vertebral foramen) through which a tubular nervous structure travels. Beginning at the base of the brain to the upper lumbar spine, this structure is called the spinal cord.

Below the spinal cord, in the lumbar spine, the nerves that exit the spinal cord continue to travel through the vertebral foramen as a bundle known as the cauda equina.

At each level of the spine, spinal nerves exit the bony spine then extend throughout the body.



What can cause pain?

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

Degenerative Disc Disease (DDD)

During the natural aging process, the discs between each vertebral body can lose their flexibility, height, and elasticity which can cause a tear in the tough outer layer of the disc, causing the disc to herniate, bulge, or leak the gelatinous core. The bulges or leakages can end up compressing the nerve roots, spinal cord, and/or cauda equina causing symptoms including, but not limited to lower back and/or leg pain.

Degenerative Spondylolisthesis

Degenerative spondylolisthesis is a condition where one vertebra has slipped forward over another one below it. This instability typically occurs as a result of degenerative changes but may also be caused by stress fractures, or congenital abnormalities (birth defects), and in rare cases from a tumor or trauma.

Degenerative Scoliosis

Adult degenerative scoliosis is a condition where a right-left or lateral curve develops in a previously straight spine. This curvature occurs as a result of deterioration of the disc and joints in the back of the spine. As the joints degenerate they create a misalignment in the back, resulting in a bend or curvature, causing symptoms including lower back and/or leg pain.

What are treatment options?

Many symptoms can be treated without surgery including rest, heat, ice, medication, injections, and physical therapy. It is important to speak with a physician about the best option.

If symptoms do not improve with conservative treatment, physicians may recommend spinal surgery. Surgery is reserved for those who do not gain relief from non-operative forms of treatment, patients whose symptoms are increasing or worsening, and/or patients that present with a spinal condition which indicates the need for surgery.

What is an Anterior Lumbar Interbody Fusion (ALIF)?

In this procedure, the surgeon works on the spine from the front (anterior) and removes a spinal disc in the lower (lumbar) spine. The surgeon inserts a bone graft into the space between the two vertebrae where the disc was removed (the interbody space). The goal of the procedure is to stimulate the vertebrae to grow together into one solid bone, a process known as fusion. Fusion creates a rigid and immovable column of bone in the problem section of the spine. This type of procedure attempts to reduce back pain and other symptoms.

Anterior approaches, such as in ALIF, allow access to the discs from the front of the spine and do not require muscle stripping as in posterior approaches.

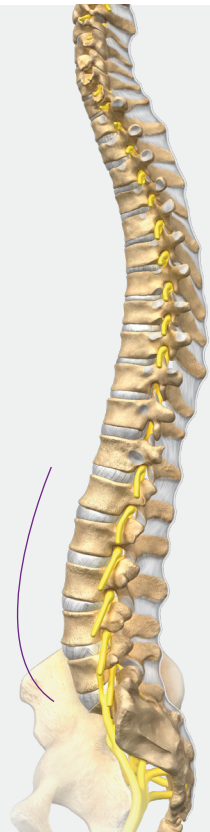
Can an ALIF be right for me?

Your physician might determine an ALIF procedure is a good option for you if you require an interbody fusion, are skeletally mature, and have received at least six weeks of non-surgical treatment.

Conversely, your physician may determine that an ALIF procedure is not a good option for you if you are not a good candidate for fusion surgery in general due to other medical conditions. These conditions can be, but are not limited to: signs of inflammation or infection near the operative site, patient sensitivity to implant materials, patients with inadequate bone quality, previous retroperitoneal surgery, previous aortic bypass or endovascular stent graft, and other indications.

ALIF procedures occur in the lumbar spine, which is made up of 5 vertebrae.

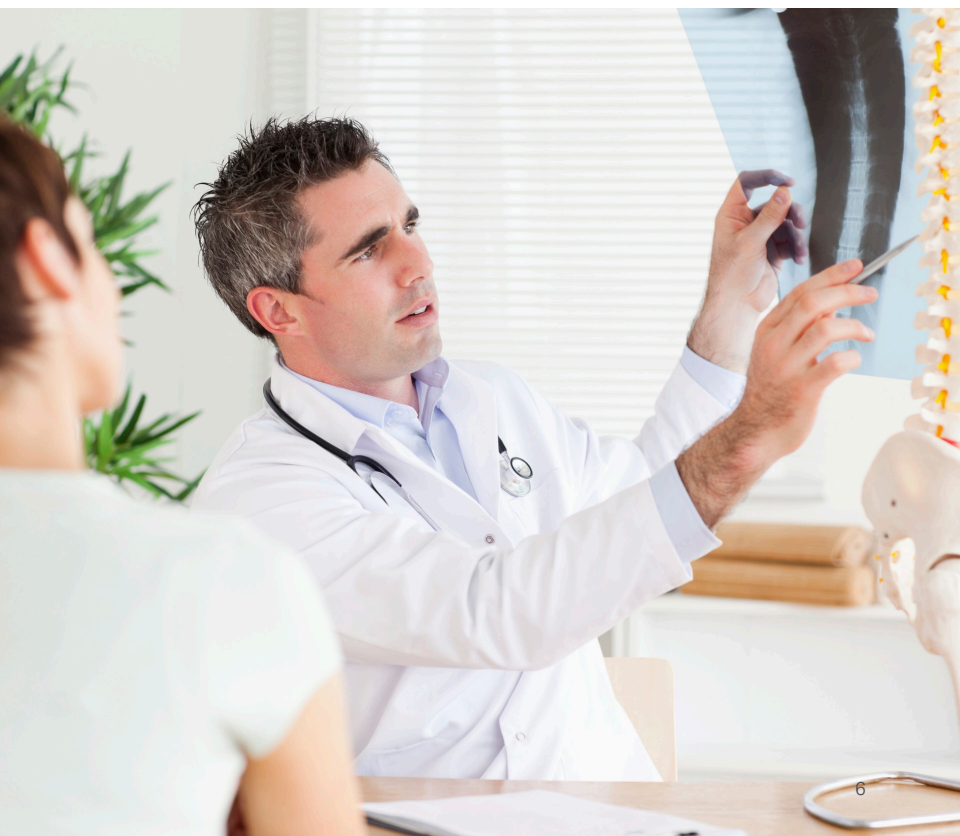
Lumbar



What to expect

Before surgery

Your physician will review your condition and explain treatment options, including medications, physical therapy, and other surgeries. Should you have any questions regarding the procedure, do not hesitate to ask your surgeon. Your physician will provide thorough preoperative instructions.



During surgery

After you are sedated, positioned on your back, and surrounded by the appropriate surgical draping, an X-ray image is taken of your spine to identify the location of the operative disc space.

Step 1: Approach

Traditionally, a small incision is made through one side of the abdomen. The large blood vessels that lie in front of the spine are gently moved aside.

Step 2: Disc removal

The diseased or damaged disc is removed to reduce pressure from the symptomatic cord and/or nerve root.

Step 3: Implant

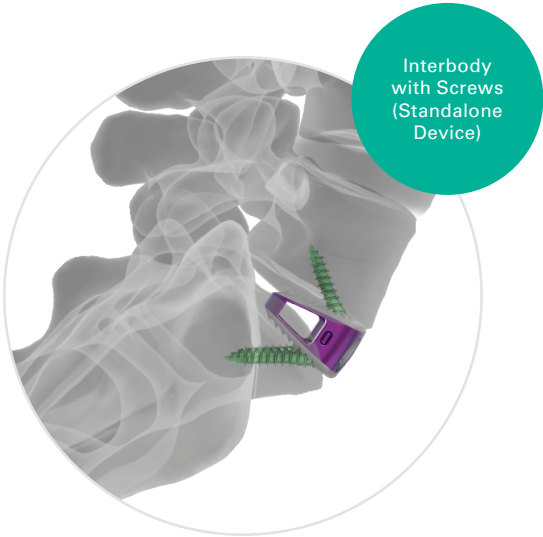
An implant is inserted into the void left once the disc is removed. This implant acts as a scaffold for bone to grow through, which will eventually stabilize that segment of your spine once fusion (bone growth) occurs. This may include fixation as a standalone device.

Step 4: Fixation

A small plate and screws are then placed over the disc space to act as a stabilization device (internal brace) to help hold everything in place while fusion occurs.

What implants are used?

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



After surgery

After surgery you will wake up in the recovery room, where your vital signs will be monitored and your immediate postoperative condition will be carefully observed. Once the medical staff feels that you are doing well, you will be returned to your room in the hospital.

Your physician will determine the best postoperative course for you. This will include any 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.

What are the potential risks of an ALIF procedure?

Keep in mind that all surgery presents risks and complications that are important to discuss with your surgeon prior to your surgery. Listening to your physician's guidance, both before and after surgery, will help your recovery.

Potential risks following ALIF surgery include:

- Problems with anesthesia
- Blood vessel damage
- Nerve or spinal cord damage
- Problems with the interbody device or hardware
- Retrograde ejaculation (in males)
- Ongoing pain

This is not intended to be a complete list of the possible complications. Please contact your physician to discuss all potential risks.

Frequently asked questions

Can I shower after surgery?

Depending on your surgical incision, you may have showering restrictions. Ask your physician for appropriate instructions.

Will I have a scar?

Your physician will discuss the incisions that will be made during an ALIF surgery.

When can I drive?

For a period of time after your surgery, you may be cautioned about activities such as driving. Your physician will tell you when you may drive again.

Can I travel?

The implants used in the ALIF procedure may activate a metal detector. Because of increased airport security measures, please call your local airport authority before traveling to get information that might help you pass through security more quickly and easily. Ask your physician to provide a patient identification card.

Notes

Resources

For more information about ALIF, please visit:

[nuvasive.com](https://www.nuvasive.com)

If you would like to learn more about patient support and education for chronic back, leg, and neck pain sufferers and their loved ones, please visit:

[thebetterwayback.org](https://www.thebetterwayback.org)

If you have any questions about ALIF or spine surgery, please call or visit your physician, who is the only one qualified to diagnose and treat your spinal condition. This patient information brochure is not a replacement for professional medical advice.

About **The Better Way Back**[®]

The Better Way Back is a nationwide patient support program created by NuVasive[®], a leader in developing minimally invasive, procedurally-integrated spine solutions. The Better Way Back is a free community built on the power of empathy, and is dedicated to providing hope, support, and information to individuals suffering from chronic back, leg, or neck pain.

Through its Patient Ambassador Program, The Better Way Back pairs patients considering spine surgery with patients who have previously undergone a spine procedure. Ambassadors volunteer their time to discuss their experiences in order to provide additional, first-hand perspectives.

To learn more about The Better Way Back, please



call **1-800-745-7099**



visit **thebetterwayback.org**



text "TBWB" to **858-360-8292**

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