



PLIF

Posterior Lumbar Interbody Fusion



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PLIF

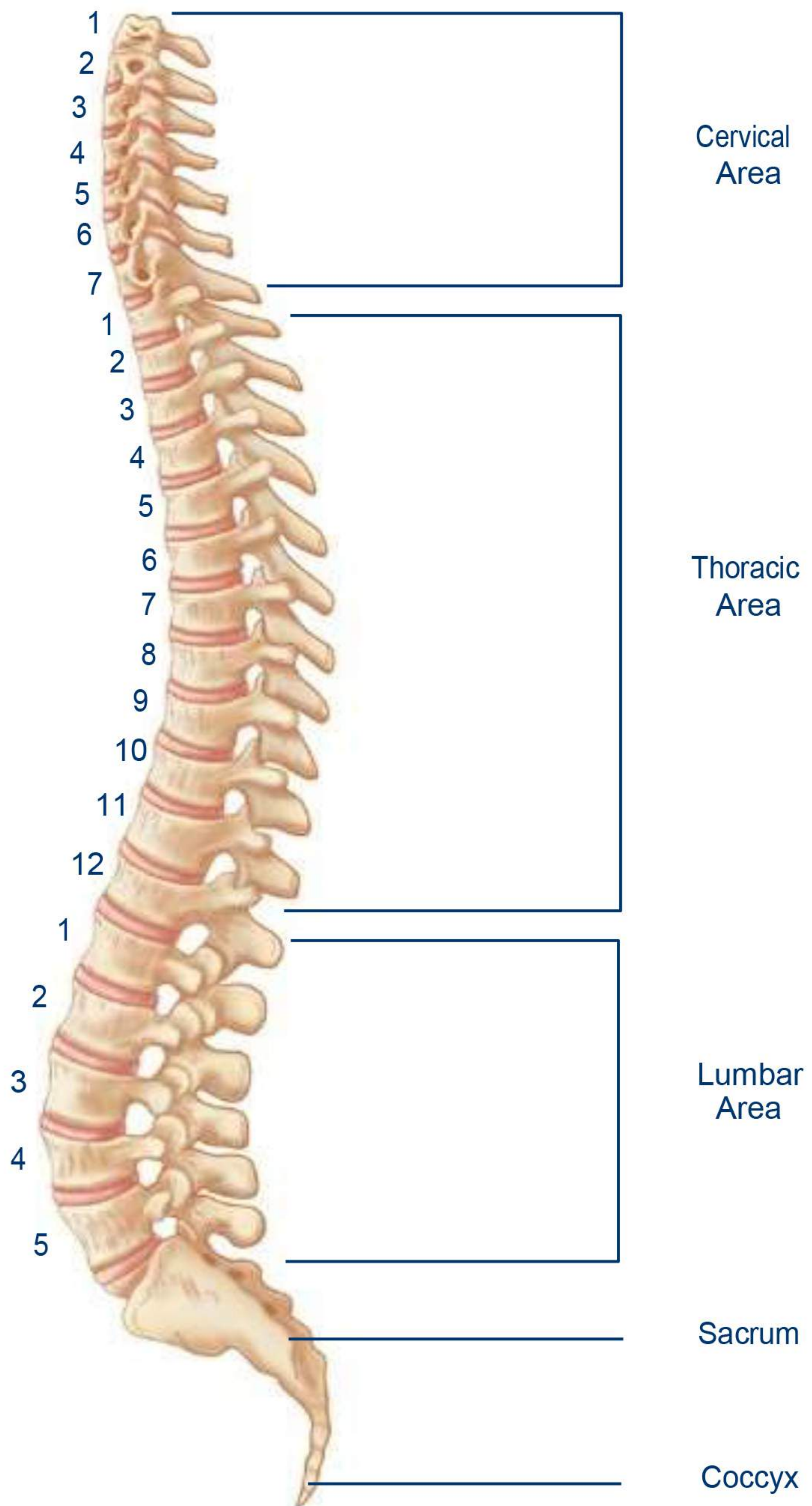
Table of Contents

Anatomy of the Spine	2
General Conditions of the Spine	4
Degenerative Disc Disease	4
Spondylolisthesis	5
Lumbar Spinal Stenosis	6
Treating Spinal Conditions	7
PLIF Procedure	7
Postoperative Expectations	8

The decision to receive medical treatment is individualized to the patient and the patient's symptoms. The information presented within this brochure may not apply to your condition, treatment or its outcome, as surgical techniques vary and complications can occur. It is important to discuss the viability of this procedure with your physician to decide whether this treatment option is right for you.

This brochure is intended to be an educational resource only and is not meant to replace a conversation between a patient and their physician or member of their health care team. Please consult your physician for a complete list of indications, precautions, clinical results and other important medical information that pertains to this procedure.

Anatomy of the Spine



Anatomy of the Spine

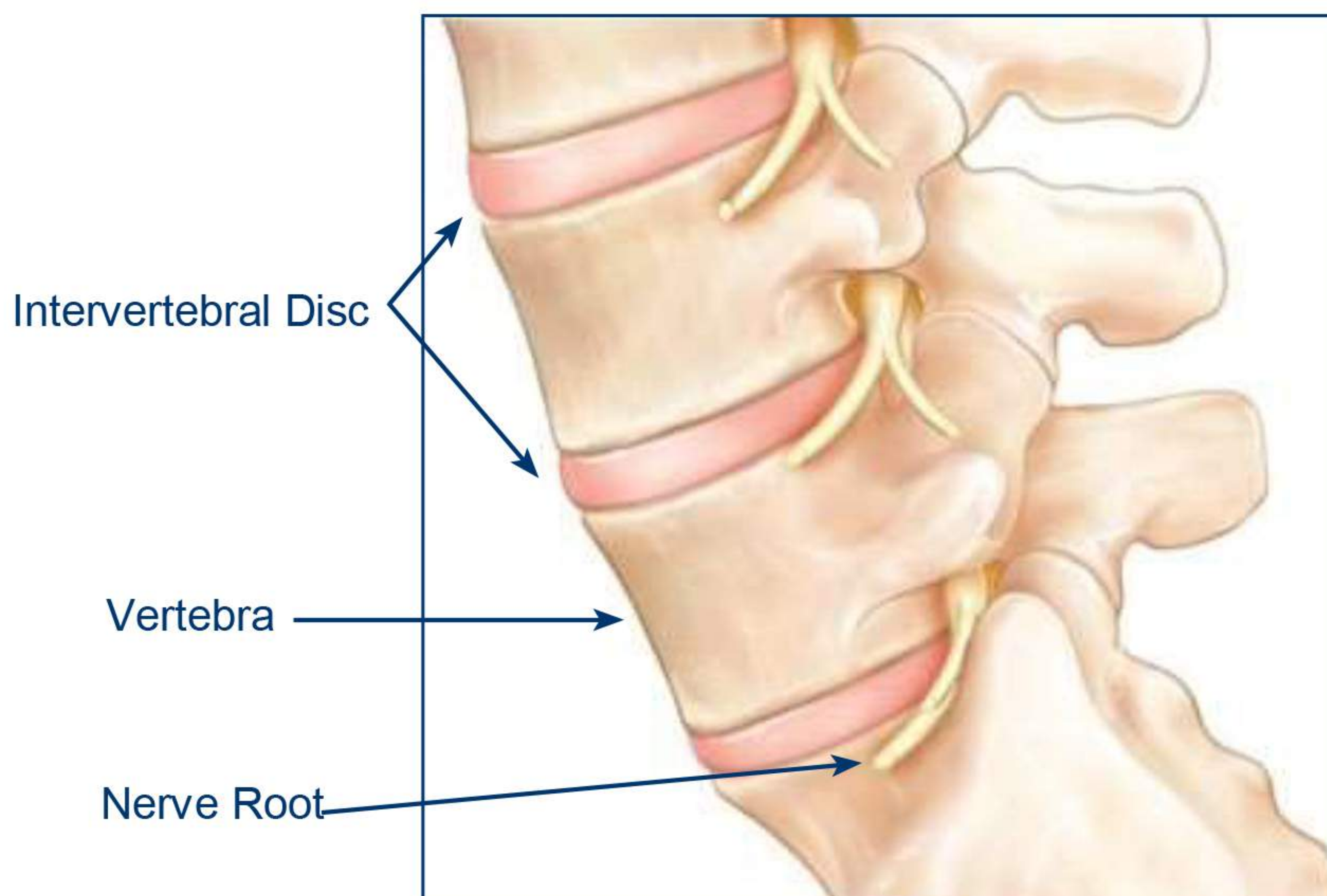
The spine is made up of vertebrae and is divided into 3 main sections:

- Cervical (7 vertebrae)
- Thoracic (12 vertebrae)
- Lumbar (5 vertebrae)

Below the lumbar spine is the sacrum which is comprised of 5 fused vertebrae. At the end of the spine is the coccyx, or the tailbone.

The vertebrae bear the weight of the upper body and provide points of attachment for muscles and ligaments. It also protects the spinal canal and provides exit points for spinal nerves.

The individual vertebrae are separated by intervertebral discs, which act as cushions or shock absorbers between the vertebral bodies.



General Conditions of the Lumbar Spine

There are a variety of conditions that affect the spine and can cause pain. Several of the more common conditions are described below.

Degenerative Disc Disease

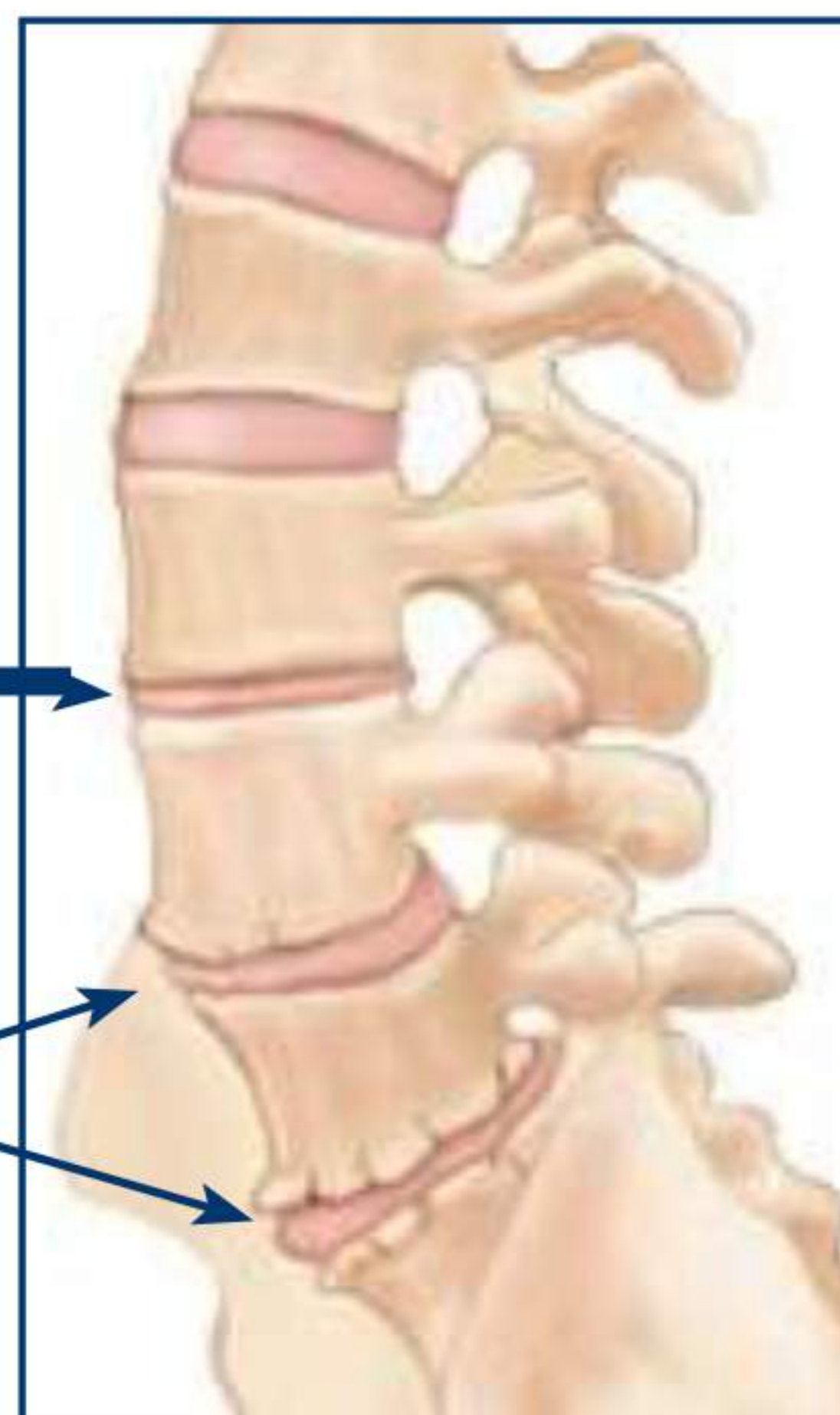
Degenerative changes in the spine may cause instability and pain in your back. Degenerative Disc Disease (DDD) involves the intervertebral disc and is part of the natural aging process.

Healthy Discs



In the normal spine, your discs act as a shock absorber between vertebrae. Over time the discs can lose flexibility, elasticity, and height. When this happens, they lose their shock absorbing characteristics and can lead to abnormal motion or alignment of the spine, which may result in pain.

Degenerated Disc
Disc Degeneration
with changes in
bone structure



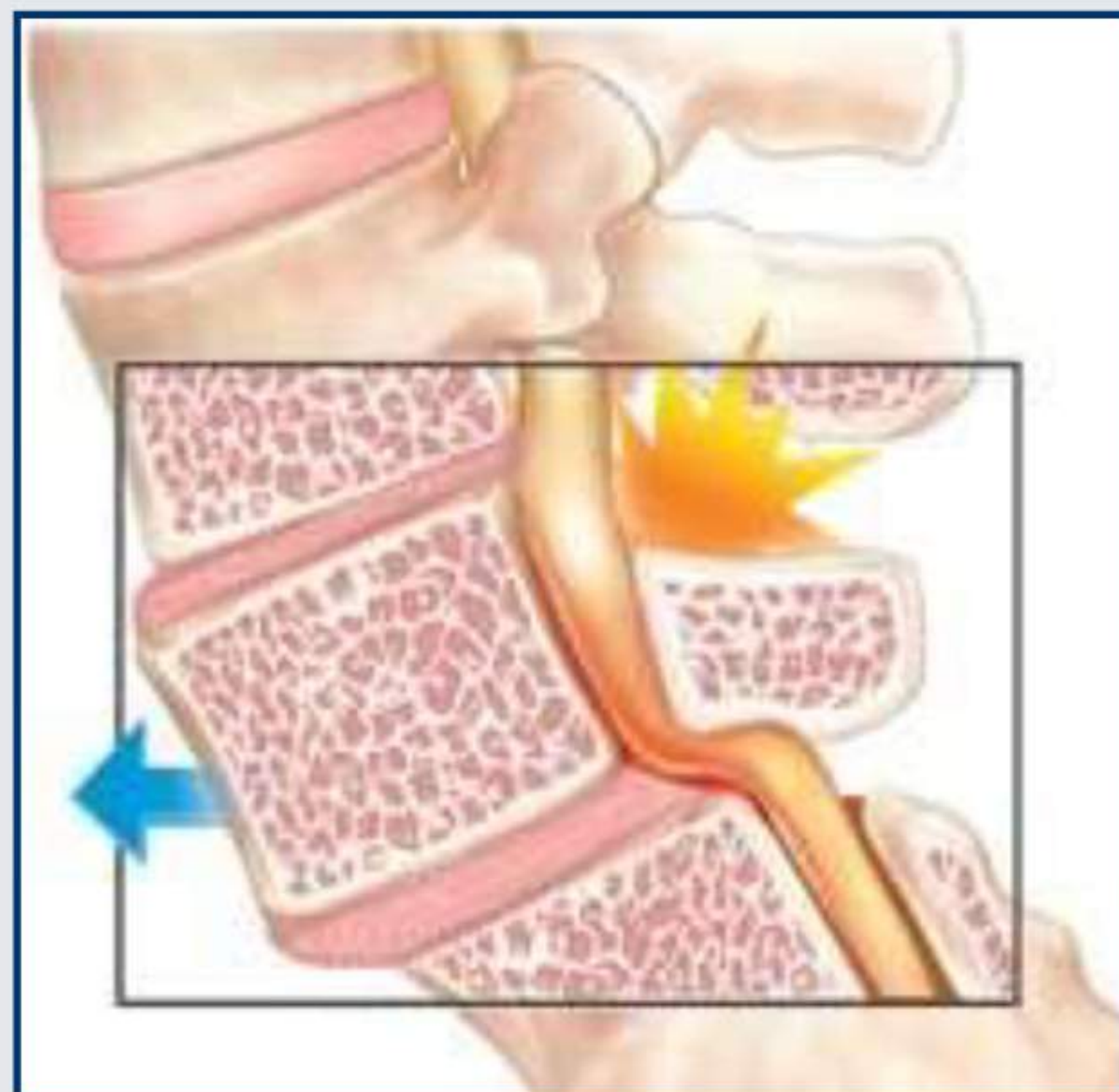
Symptoms may include pain or numbness in the back or legs. This pain may increase with activities that involve sitting for extended periods, bending or twisting.

Spondylolisthesis

Spondylolisthesis is a condition in which one of the vertebrae slips forward or backward. If left untreated, this can lead to deformity of the spine and narrowing of the spinal canal.



Normal spine segment



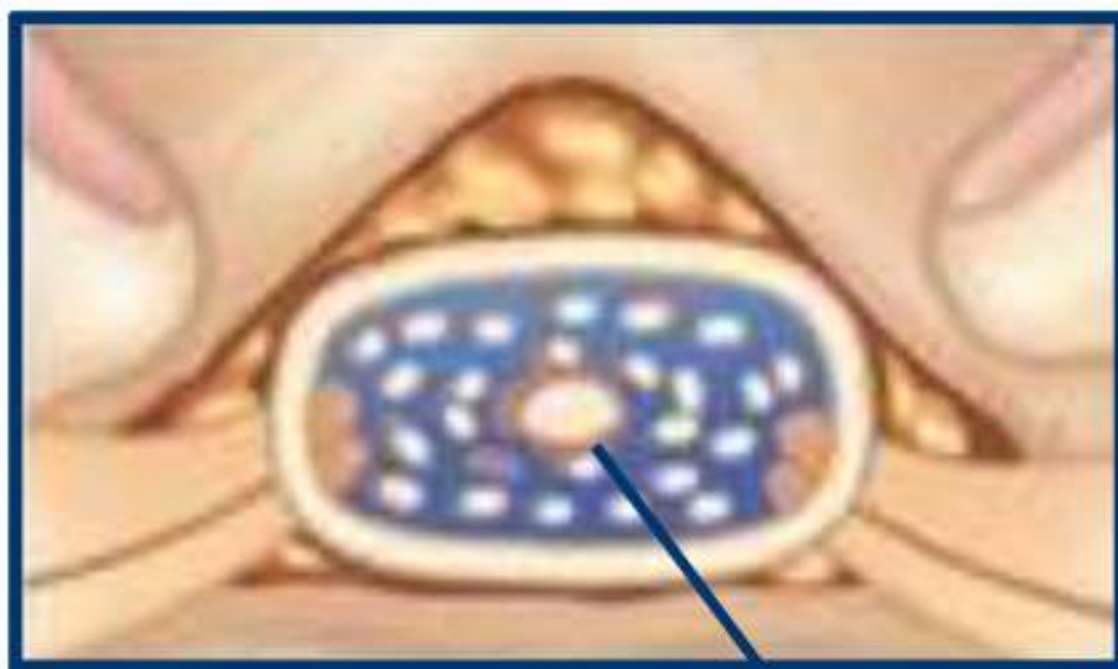
Displaced vertebra causing pressure on nerve

Typical symptoms include low back pain, muscle spasms, thigh or leg pain, and weakness. Interestingly, some patients are asymptomatic and only learn of the disorder after spinal radiographs, such as x-rays.

Spinal Stenosis

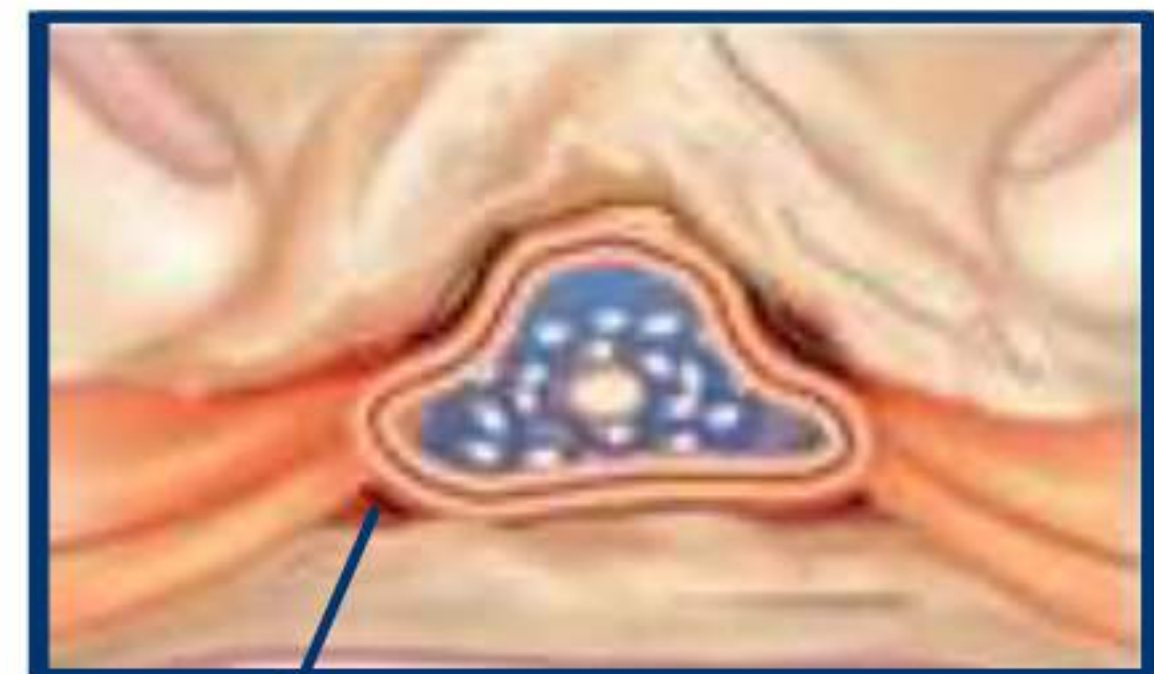
Spinal stenosis is the narrowing of areas in the spine where nerve roots and the spinal cord must travel. It is most commonly caused by age-related spinal degeneration. This narrowing can put pressure on the nerves and cause pain.

Healthy Spine

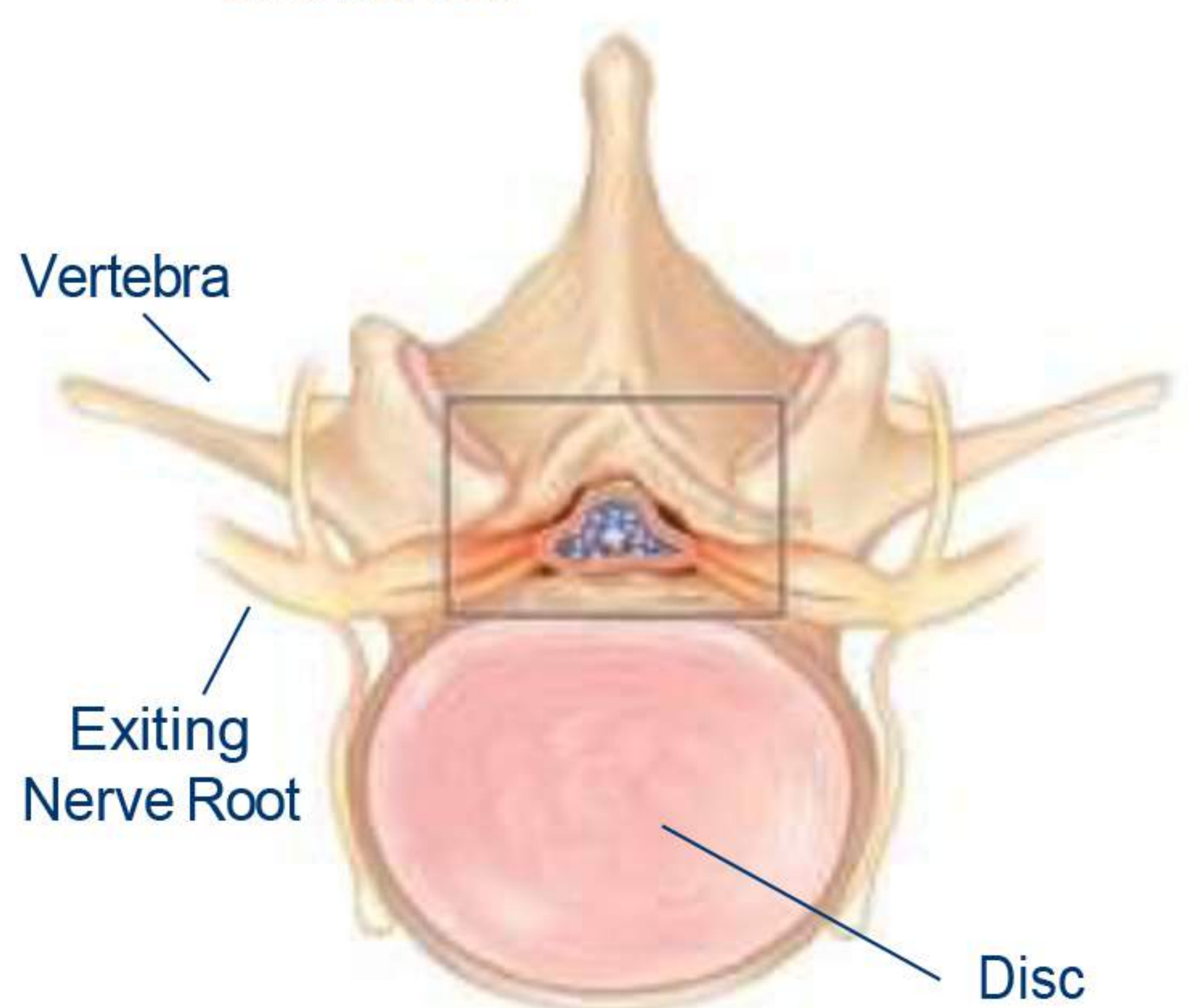
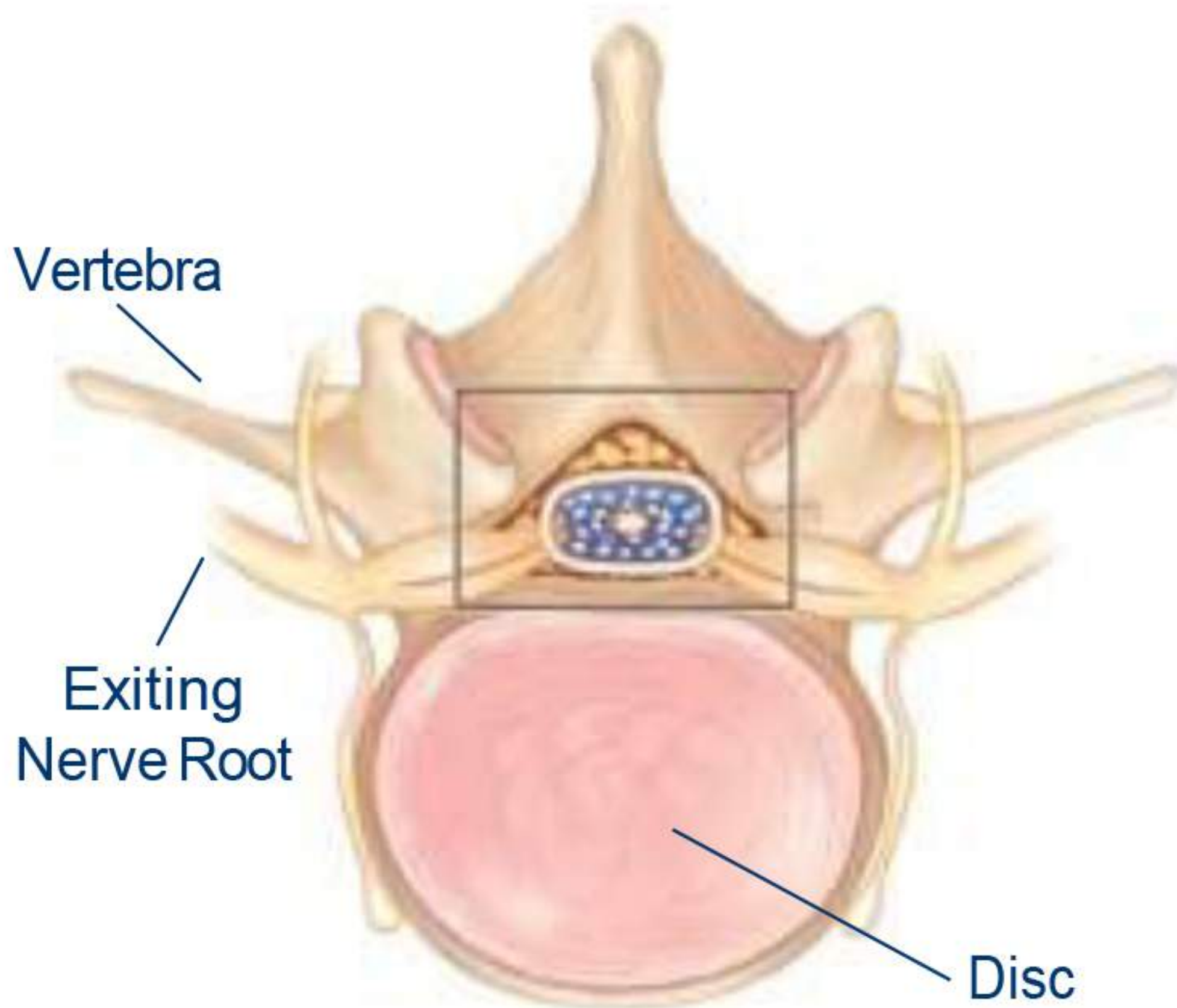


Spinal canal

Spinal Stenosis



Compressed cord and nerves



Symptoms often start gradually over time. Pain is likely to be present or worsen when you stand or walk, and lessen or disappear when you sit down or lean forward. Typically, people suffering from lumbar spinal stenosis will experience pain, tingling weakness or numbness that radiates from the lower back into the buttocks and legs.

Treating Spinal Conditions

There are a variety of surgical approaches to treating spinal conditions. The choice of which approach to use is dependent on many factors which include patient symptoms, patient anatomy, prior surgery, and/or surgeon preference. PLIF is one of the options that your doctor may choose.

What is a PLIF?

Posterior Lumbar Interbody Fusion (PLIF) is a form of spine surgery in which the lumbar spine is approached through an incision on the back. This procedure is used to stabilize the spine by fusing two or more vertebrae together.

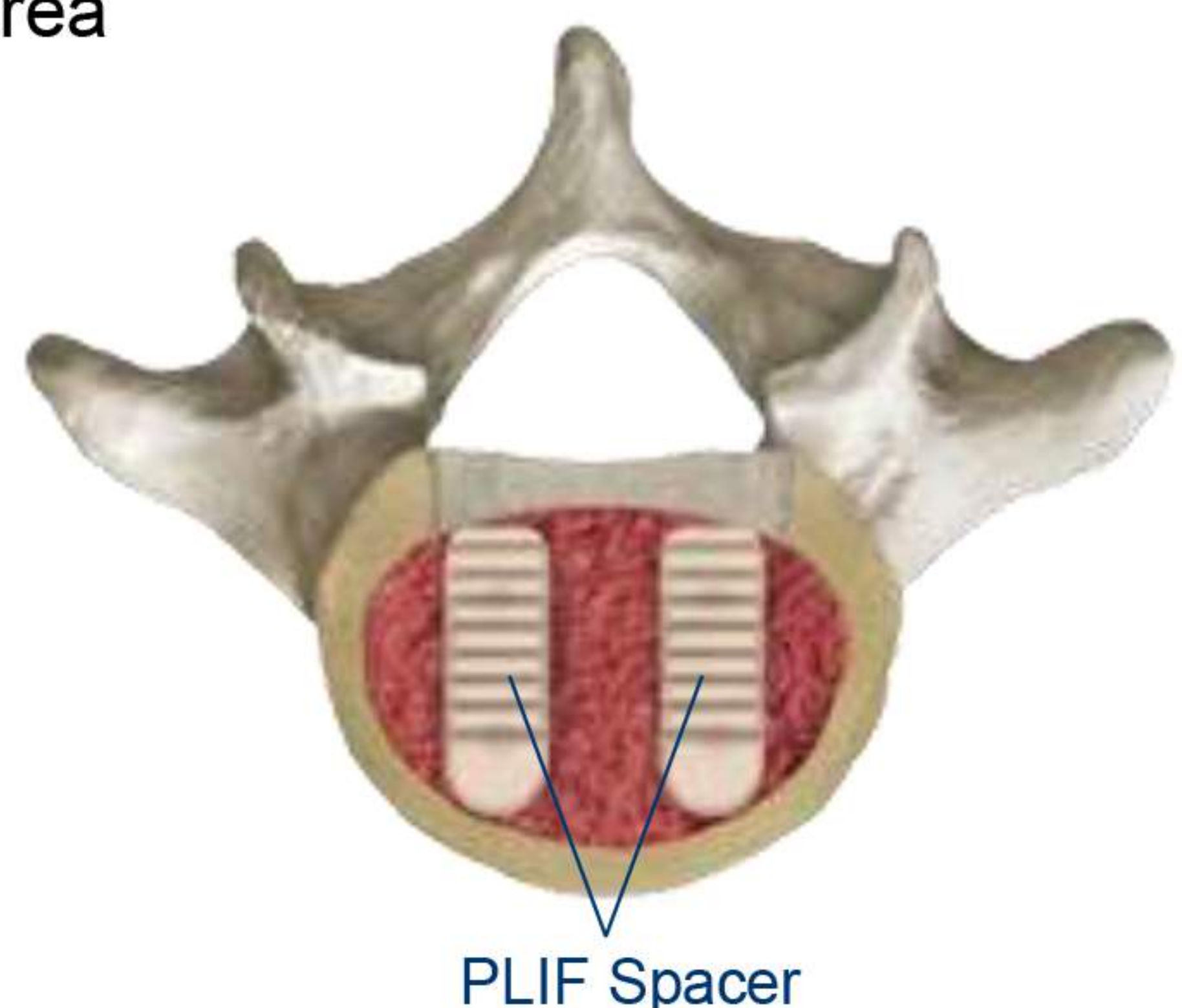
How is a PLIF Performed?

During the surgery the patient lies face down. First, the surgeon makes an incision in the skin of the back over the vertebra(e) to be treated. In a traditional PLIF, a 3-6 inch incision is typically required depending on the number of surgical levels. A small section of the bone and disc are removed to clear a pathway for the interbody spacers.

PLIF Spacer

Two interbody spacers are inserted into the disc space to aid in supporting areas between the vertebrae where the disc was removed. The function of the spacers is to stabilize the segment and to improve overall alignment of the spine. Increasing disc height also provides more room for the nerves. The central chamber and surrounding area is packed with bone graft material to help promote bone growth (fusion) between adjacent vertebrae.

A variety of different interbody spacer options are available. Talk to your doctor about which implants and techniques may be best to treat your condition.







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