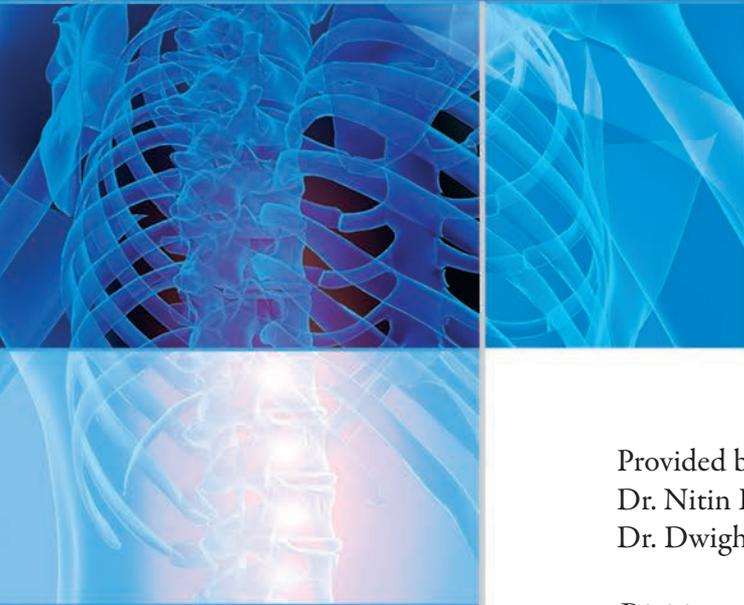


Minimally Invasive Lateral Interbody Fusion

Instruction Book



Provided by:
Dr. Nitin Khanna &
Dr. Dwight Tyndall

*Division of Orthopaedic
Specialists of Northwest IN*



219-924-3300

www.spinecarespecialists.com

LUMBAR ANATOMY

The spine provides support for the body. It also provides a protected conduit for the spinal cord and nerves.

The lumbar spine is composed of five lumbar vertebrae. These are separated by the shock absorbing discs. The nerves lie behind the discs.

When looking at spinal anatomy, it is often helpful to look at the spine in segments. A spinal segment is made up of two vertebrae, the intervertebral disc, and associated nerve roots.

Vertebrae: The bones of the spinal column. The main part is the round block called the vertebral body. A bony ring is attached to the back, which consists of two pedicle bones and two lamina. The spinous process is the bony knob, which can be felt on the back.

Pedicle/Lamina: The two parts of a bony ring, which connect to the back of each vertebral body. A hollow area is formed between the vertebral body and this bony ring. This is where the spinal cord lies.

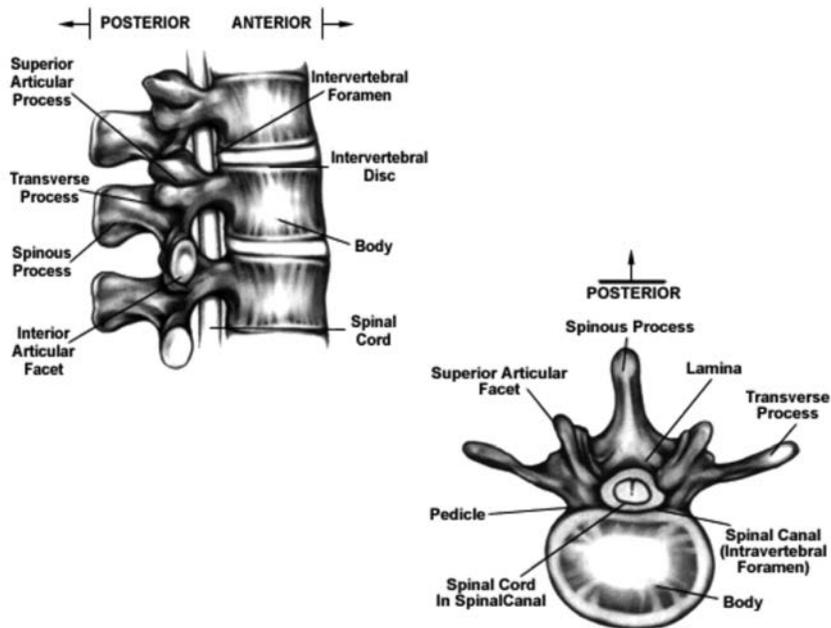
Facet Joint: The joints connecting the vertebra. There are two facet joints per vertebra. The facet joints connect the vertebrae and allow movement.

Disc: Cushion-like pad, consisting of a jelly like center and a tough outer ring. It acts like a shock absorber, load distributor and spacer.

Neural Foramen: The opening in which the nerve roots exit from the spinal cord. If this area becomes smaller, either by age or a herniated disc, the nerve root can get squeezed, thus causing pain and/or dysfunction.

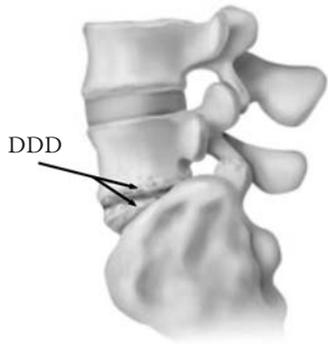
Spinal Cord: Pathway in which the brain sends signals to the rest of the body to control sensation and movement.

Nerve Root: Bundles of nerve fibers that exit the spinal cord. Each provides a sensation and function to a specific area of the body. Two roots exit the spine at each vertebral level.



MINIMALLY INVASIVE LATERAL INTERBODY FUSION

A lumbar fusion is used to stabilize the spine. The following are common conditions that can lead to spinal instability. If you are not sure exactly what condition or conditions you have, please make sure to let us know. It is important for you to understand your condition and expected outcome.

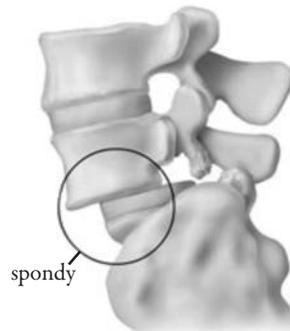


Degenerative Disc Disease

As we have learned, the discs lie between the vertebrae. The spinal cord lies behind the discs. As we age, the disc can begin to lose water content. This is called degeneration and can weaken the disc making them ineffective as shock absorbers and spacers. This can destabilize the spine and cause great pain.

Pars Fracture / Spondylolysis

Sometimes a fracture can form in part of the bony ring that surrounds the spinal cord (Pars fracture). This can allow one vertebrae to slip forward (Spondylolisthesis). This can cause instability in the spine. The slippage can also cause compression on the nerve roots.

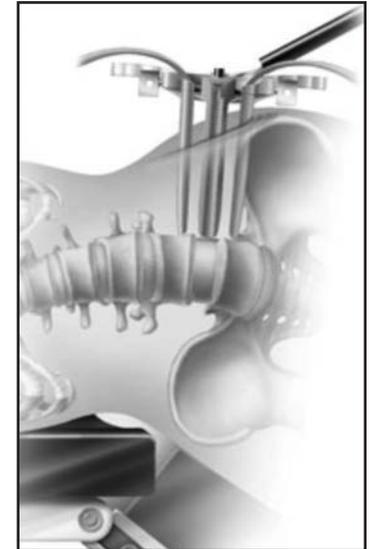


Recurrent Disc Herniation

Occasionally, if a lumbar disc re-herniates, spinal instability may occur. If this is the case, a lumbar fusion may be the best treatment option.

We are able to treat this instability (that fails non-operative treatment) with a Minimally Invasive Lateral Interbody Fusion. Minimally invasive surgery is done with smaller incisions, less blood loss, less operative time, and less pain than with a standard open operation.

The procedure is called the Minimally Invasive Lateral Interbody Fusion. A small incision is made laterally (on your side). The damaged disc is removed. The spine can then be stabilized with the use of an internal spine instrumentation such as a lateral plate and interbody cage. This leads to more reliable fusion rates and significant pain relief. The flank incision prevents disruption of the major muscles of the back or abdomen and allows for a quicker less painful recovery.



The goal of a Lumbar fusion is for the vertebrae to grow together and 'fuse' as one solid unit.

Your physician will discuss your treatment plan with you in more detail. Typically, a lumbar fusion requires a 2-3 day hospital stay. However, due to the minimally invasive technique, your hospital stay may be much shorter.