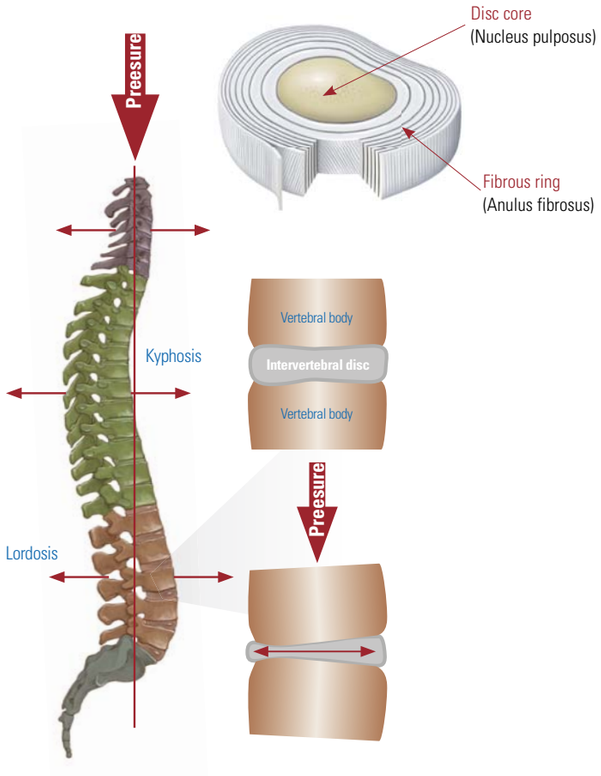
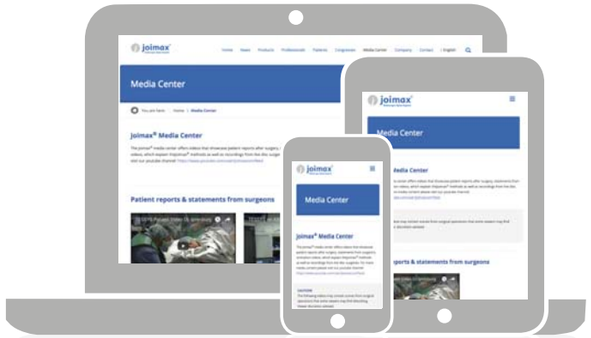
S-curves for mobility and stability

Viewed from the side, the curvature of the spine is like a double-S-shape. Depending on the direction, the curves are described as lordosis or kyphosis. They ensure that the body can absorbe shock and force and provide it with the best possible support.

The intervertebral disc

The intervertebral discs are located between adjacent vertebral bodies and connect them to the characteristic double-S-shape. Intervertebral discs consist of a gel-like elastic core (nucleus pulposus) and a surrounding ring (anulus fibrosus). The fibrous ring holds the inner core together and prevents it from being extruded. This construction allows the intervertebral discs to absorb pressure evenly. In other words, they function as a shock absorber and simultaneously allow a certain amount of movement.





View the online portal!

You can see a 3D animation of the endoscopic surgery in the joimax® online media center:
www.joimax.com

Important!
All the information in this leaflet is general in nature and not intended to replace a personal, detailed consultation with a doctor.

Your therapy partner

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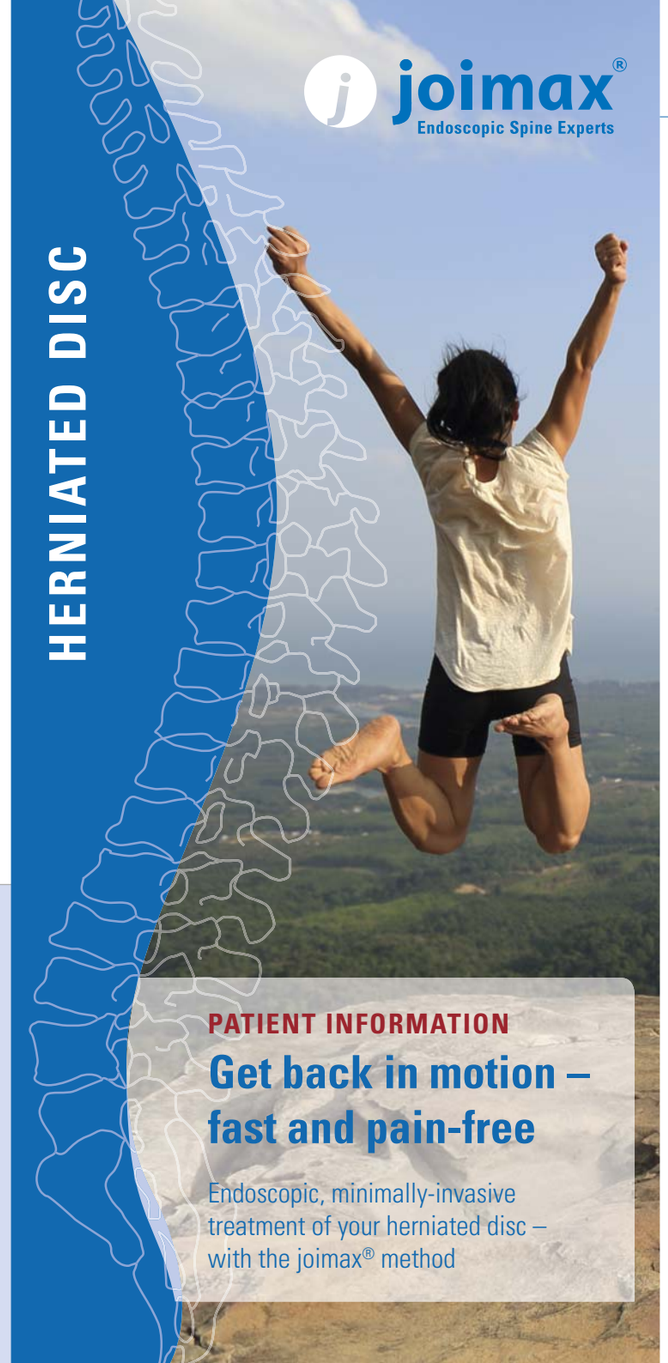
HERNIATED DISC

joimax®
Endoscopic Spine Experts



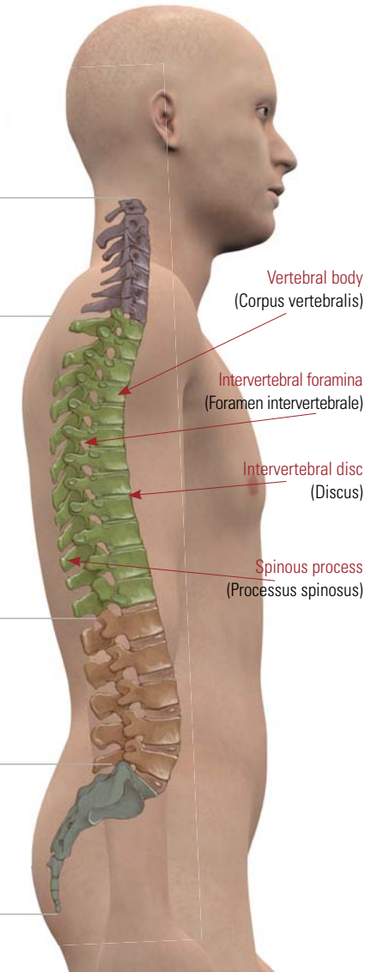
PATIENT INFORMATION

Get back in motion – fast and pain-free

Endoscopic, minimally-invasive treatment of your herniated disc – with the joimax® method

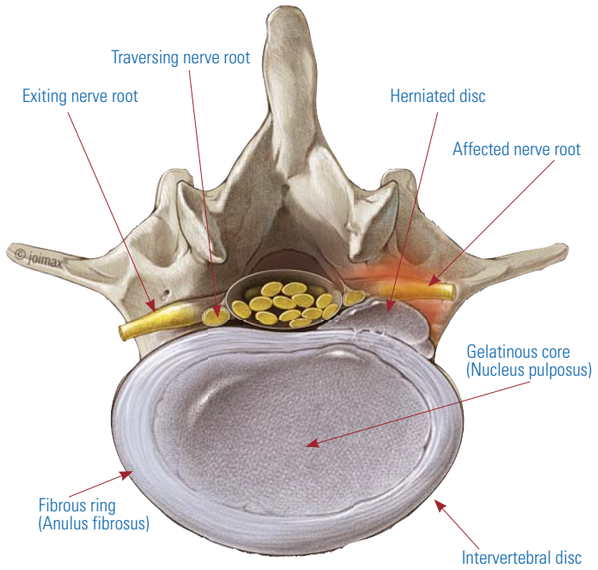
Dear Patient,

Our spine is multifunctional – one of nature's ingeniously created structures of bone, ligaments, tendons, intervertebral discs, muscles and nerves. When all structures function correctly, this central axis of our body allows movement and activity in all directions while providing stability at the same time.



A herniated disc – what is it?

In the course of the normal aging process or by overload, cracks may appear in the fibrous ring. Part of the gelatinous core can be extruded through the anulus into the spinal canal and pinch or restrict the nerves. This is what is meant by a herniated disc. Most herniated discs occur in the lower lumbar spine or at the connection to the sacrum.



What causes a herniated disc?

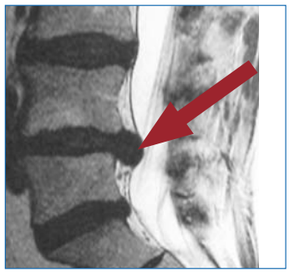
> Sudden rotational trunk movements or heavy lifting
> Monotone posture in everyday life (e.g. incorrect sitting)
> Weak abdominal or back muscles
> Dehydration and a poor diet
> Obesity and hereditary deformity

What are the most common symptoms of a herniated disc?

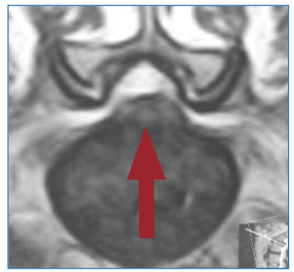
> Back pain with or without radiating pain into the legs or arms
> Parathesia or even symptoms of paralysis

How is a herniated disc diagnosed?

In addition to a clinical diagnosis, a herniated disc can be confirmed by MRI or CT scan.



MRI side view: herniated disc (arrow) in the lumbar spine



MRI view (cross section): herniated disc (arrow) in the lumbar spine

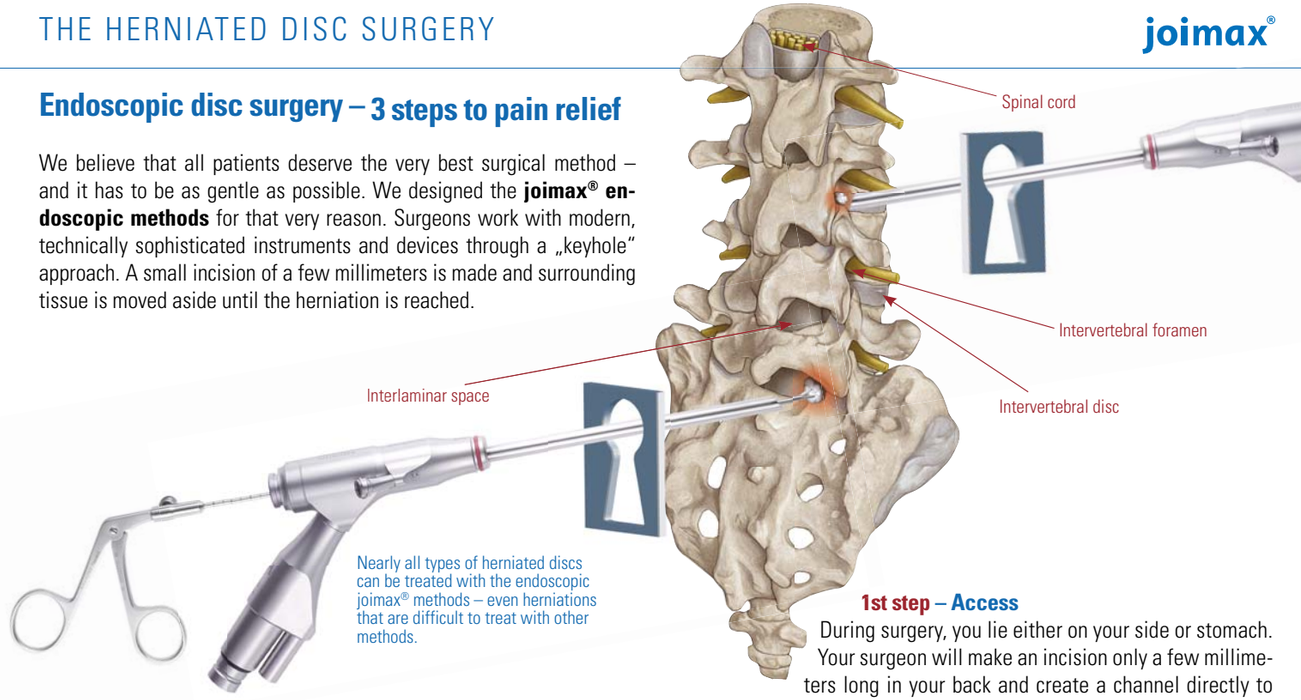
When is surgery necessary for a herniated disc?

Surgery is usually only necessary for a herniated disc when the pain does not lessen after at least 6 weeks of physiotherapy or muscle training and pain medication, or there are symptoms of paralysis. In all cases, compression of the nerve roots is identified as the clear cause.

joimax®

Endoscopic disc surgery – 3 steps to pain relief

We believe that all patients deserve the very best surgical method – and it has to be as gentle as possible. We designed the **joimax® endoscopic methods** for that very reason. Surgeons work with modern, technically sophisticated instruments and devices through a „keyhole" approach. A small incision of a few millimeters is made and surrounding tissue is moved aside until the herniation is reached.



Nearly all types of herniated discs can be treated with the endoscopic joimax® methods – even herniations that are difficult to treat with other methods.

1st step – Access

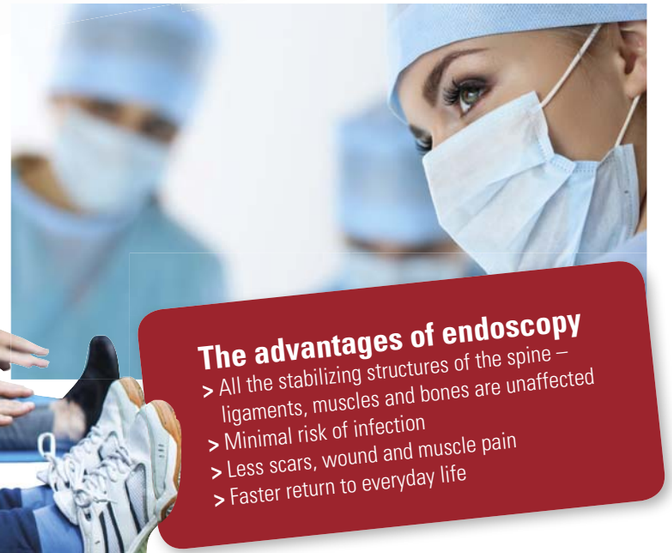
During surgery, you lie either on your side or stomach. Your surgeon will make an incision only a few millimeters long in your back and create a channel directly to the herniated disc. Surrounding tissue is moved aside gently without cutting. A natural opening – the intervertebral foramen or the interlaminary fenestration – is used to access the vertebral canal.

2nd step – The herniation is removed

The surgeon guides a specialized endoscope through the keyhole to the surgical field and has a bright and sharp view of all structures in the spinal canal. The herniation disc material is carefully and gently removed by using very small forceps and other special instruments.

3rd step – Review and completion

On completion, the surgeon will check that the affected nerve fibers are now moving freely. Only then will the instruments be removed and the small incision closed with one or two stitches and a dressing. You are usually free of pain right after surgery and about two hours later you will be able to stand up. Your doctor will tell you when you can go home and resume normal activities.



The advantages of endoscopy

> All the stabilizing structures of the spine – ligaments, muscles and bones are unaffected
> Minimal risk of infection
> Less scars, wound and muscle pain
> Faster return to everyday life