



DECISION AID

Degenerative spondylolisthesis (DS):

Can surgery help?

Spondylolisthesis is when vertebrae slide against each other. This can put pressure on the blood vessels and nerves inside the spinal canal, causing symptoms. Spondylolisthesis is typically caused by abnormalities in the spine due to aging – just like with spinal stenosis (the narrowing of the spinal canal). It is common for both of these conditions to occur together. The lower part of the spine (lumbar region) is most commonly affected.

The possible symptoms include pain in the lower back that shoots into your bottom or legs (sciatica), as well as numbness and tingling in your legs or feet.

Your doctor may have already advised you to have surgery if you have had the symptoms for a long time, and spondylolisthesis is thought to be the cause and other treatments haven't helped. The aim of this decision aid is to help you to decide together with your doctors whether or not to have surgery. You also have the right to seek a second medical opinion.

THESE ARE THE TREATMENT OPTIONS:

- Conservative therapy (without surgery):**
- Exercise and positioning
 - Physical therapy
 - Oral painkillers
 - Injections near the spine to locally numb the nerves or stop inflammations
 - Behavioral therapy
- Sometimes, several of these treatments are used in combination (multimodal pain management).

- Surgical treatment**
- Laminectomy, a procedure that removes bone and ligaments to create more space inside the spinal canal
 - Laminectomy with spinal fusion to fuse the vertebrae together

You can read about the pros and cons of these treatment options on the next pages.

MAKING AN INFORMED DECISION

This decision aid probably won't include all of the information that you need. You will still have to talk to a doctor, but the decision aid can help you. Deciding whether to have treatment also depends on other factors such as your general state of health, your expectations of a procedure, which other treatments you have already tried, and how successful they were.

Even if you find the symptoms very distressing, you can take your time to find the information you need and then make a decision.



Surgery is needed if the nerves in the spinal canal are affected so severely that your bladder or bowel can no longer work properly (cauda equina syndrome) or your muscles are weakened (and are immobilized).

SUMMARY OF TREATMENT OPTIONS

	Conservative therapy	Surgery
What does the treatment involve?	<p>Conservative treatments are intended to relieve the symptoms and help you maintain your flexibility and strength. These treatments include:</p> <ul style="list-style-type: none"> • Maintaining as active a daily life as possible while exercising and occasionally taking the strain off the lower back • Over-the-counter painkillers like diclofenac or ibuprofen • Stronger, prescription-only painkillers, rarely and only for brief periods, like opioids or other drugs such as muscle relaxants • Physical therapy: special strength and stretching exercises as well as manual therapy • Injections near the spine of anti-inflammatory or local anesthetic medications • Cognitive behavioral therapy to develop new behavioral patterns to cope with pain • Multimodal pain management using techniques from exercise and behavioral therapy, as well as relaxation techniques 	<p>Surgery is used to create more space inside the spinal canal in order to reduce the pressure on the nerves and blood vessels.</p> <ul style="list-style-type: none"> • Laminectomy involves removing the parts of the vertebrae and ligaments that making the spinal canal narrower and putting pressure on nerves and blood vessels. • Spinal fusion can be used in addition to join (fuse) the vertebrae in that part of your body with the help of metal rods and screws in order to keep them firmly in place. If a spinal disc is damaged, it can be removed and the resulting gap between the vertebrae can be filled with a bone or titanium implant. That will lengthen your hospital stay by an average of one or two days.
Who is the treatment suitable for?	<p>Conservative treatment is an option for anyone who has noticeable problems caused by spondylolisthesis. Exactly what the treatment will involve depends on:</p> <ul style="list-style-type: none"> • How severe the pain is and how much your movement is restricted • What impact this has on your day-to-day life • Whether the pain shoots into the leg (sciatica) • Which treatments you have already tried and how effective they were • Whether any other medical conditions or possible interactions with other medications mean you can't take certain painkillers 	<p>Surgery may be considered if:</p> <ul style="list-style-type: none"> • The symptoms are so bad that they're making day-to-day life difficult • You have had the symptoms for several months • Conservative treatments have not been effective enough • Imaging of the area (like a CT scan) suggests that spondylolisthesis is causing the symptoms.

SUMMARY OF TREATMENT OPTIONS

	Conservative therapy	Surgery
How effective is it?	<p>The effectiveness of conservative therapies can vary from person to person. But most people are able to get their pain or mobility restrictions under control.</p> <p>Exercise helps you to keep fit and strengthen your core muscles. It also usually has a positive effect on your mood.</p> <p>You can modify the exercises or take breaks to help relieve and manage your symptoms.</p> <p>There is no research into whether certain treatments or combinations are more effective than others.</p>	<p>Only a few studies have looked into whether surgery can relieve the symptoms better than conservative treatment. The studies have produced inconsistent results, but they don't show any advantages for surgery overall.</p> <p>Fusing the affected vertebrae in addition to carrying out a laminectomy doesn't usually provide any additional benefit.</p> <p>Spinal fusion is most often considered if you have unstable spondylolisthesis. In that case the vertebrae have both slipped and are still sliding back and forth. But so far the studies have had very few participants, so it's not clear whether spinal fusion can help then.</p>
What are the possible side effects?	<p>Anti-inflammatory painkillers like diclofenac or ibuprofen may cause stomach problems, and they sometimes also result in stomach ulcers or severe bleeding.</p> <p>Strong painkillers can cause side effects like nausea, constipation, drowsiness, tiredness, or dizziness. A dry mouth, low blood pressure, or heart rhythm disorders are also possible. Some medications can cause dependence in the long term. So doctors recommend using medicines like opioids sparingly or only for brief periods. This also applies for muscle relaxants.</p> <p>Injections near the spine can cause secondary bleeding, infections, or nerve damage.</p>	<p>Short-term side effects such as headache or nausea can also occur depending on the type of anesthetic.</p> <p>Possible complications of surgery include infections, accidental damage to nerves and tissues in the area operated on, and bleeding due to blood vessel damage.</p> <p>Accompanying treatment with painkillers can cause side effects.</p> <p>Complications are more common in laminectomy with spinal fusion. 6 to 7 out of 100 people who have laminectomy without fusion develop complications, whereas 9 to 10 out of 100 people who have laminectomy with fusion develop them. Some of these complications are life-threatening.</p>

HELP WITH YOUR DECISION

You may still be unsure about which treatment to choose. You can write down your thoughts and questions on the following two pages.

Which treatment would you consider?		What do you like about it?	What don't you like about it?
Conservative therapy	<input type="radio"/>		
Surgery	<input type="radio"/>		





IF YOU STILL AREN'T SURE: WHAT ELSE DO YOU NEED IN ORDER TO MAKE A DECISION?

With all the different (and often unclear) pros and cons to consider, it can be hard to choose a treatment. Whether surgery is an option for you and how likely it is to be successful will mostly be determined by your individual situation – things like how severe the symptoms are and whether they can be improved using conservative therapy.

If you need more help:

- You will find a link to further information on the next page.
- You can talk to your doctor again.
- In Germany, you have the right to seek a second medical opinion. You'll find information about this option on the next page, too.
- Talking to friends and family can help you get a clear idea of what you want and expect.
- Patient information centers and self-help groups offer information and advice, and can help you learn from others' experiences.

YOU WILL FIND IN-DEPTH INFORMATION ABOUT THE FOLLOWING TOPICS ON THE INTERNET:

	Spondylolisthesis and treatment options www.informedhealth.org/spondylolisthesis-treatment-options
	Chronic back pain www.informedhealth.org/living-with-chronic-back-pain.html
	At the hospital in Germany www.informedhealth.org/at-the-hospital.html
	Surgery www.informedhealth.org/surgery.html

PREPARING FOR THE DOCTOR'S APPOINTMENT

Do you still have any questions or concerns? Write down any questions or thoughts you may have, and take this decision aid with you to the appointment. You can ask the doctor about anything you'd like to know or discuss anything you're worried about.

There's a list of possible questions here:

www.informedhealth.org/questions



PUBLISHING DETAILS

This decision aid was developed by the Institute for Quality and Efficiency in Health Care (IQWiG, Germany). You will find information about our work and the sources used here:

www.informedhealth.org/our-approach

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