



DECISION AID

Spinal stenosis in the lower back (lumbar spinal stenosis): Can surgery help?

If you've got spinal stenosis in your lower back (lumbar spinal stenosis) and you've had symptoms for quite a while, your doctor may have recommended surgery. There's often plenty of time to decide whether you want surgery. The aim of this decision aid is to help you choose a suitable treatment together with your doctors. You're also entitled to get a second opinion.

Spinal stenosis is a narrowing of the spinal canal, often in the lower part of the back. The most common cause is spinal discs, ligaments or vertebrae starting to protrude into the spinal canal due to aging processes. This can cause compression on the nerves, which can be painful. If there are any symptoms, they tend to be when walking slowly or standing. The pain can spread into the one or both legs (sciatica). There might be a tingling or numb sensation in the legs too, or it might not be possible to move them properly. Symptoms develop gradually over time but they can also remain unchanged for some time or even disappear after a while.

You might have been diagnosed with spondylolisthesis too, which is a condition people with spinal stenosis sometimes get as well. Spondylolisthesis is when the vertebrae in the affected section of the spine are no longer properly aligned because one vertebra has slipped (usually forward).

THESE ARE THE TREATMENT OPTIONS:

Conservative treatment (non-surgical)

- Exercise and reducing strain
- Painkillers
- Physical therapy and occupational therapy
- Epidural injections to numb the nerves affected or prevent inflammation
- Behavioral therapy

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

Conservative treatment options are sometimes offered in combination with other types of treatment (multimodal pain management).

Surgical treatment

- Laminectomy, which involves removing bones and ligaments to free up space in the spinal canal. If you also have spondylolisthesis, this procedure may be combined with spinal fusion.

MAKING AN INFORMED DECISION:

This decision aid probably won't include all of the information that you need. It's intended to help you prepare before talking to your doctor but you will still need to talk to the doctor. The decision will depend on other factors too – things like other health problems you have, what benefit you expect to get from the procedure, what treatments you've already tried and how successful they were.



Even if you find the symptoms very distressing, make sure you take the time to find out what you want to know, and don't allow yourself to be pressured into a decision.

IMPORTANT: Surgery is always performed if the spinal stenosis has caused such severe damage that the proper functioning of the bladder or bowel is affected (cauda equina syndrome) or the muscles are weakened.

PROS AND CONS OF THE TREATMENTS

	Conservative treatment	Surgery
What does the treatment involve?	<p>Conservative treatments aim to ease the symptoms and help you stay as active as possible. These treatments can be combined with one another. They include:</p> <ul style="list-style-type: none"> • Maintaining an active routine as far as possible, with exercise and occasionally relieving the strain on your lower back • Over-the-counter painkillers like ibuprofen • In rare cases and only for short periods: stronger painkillers that are only available on prescription, like opioids, or other medications such as muscle relaxants • Physical therapy: Exercises to actively do certain movements yourself and strengthening exercises; loosening of muscles and joints • Occupational therapy: Practicing movements and using strategies to ease pain so that your back problems don't get in the way of your daily life • Epidural injections: These are typically to inject anti-inflammatory medication or local anesthetic into the area immediately surrounding the affected nerve root. • Behavioral therapy, including things like developing new habits for dealing with pain • Multimodal pain management, combining special exercises and elements of behavioral therapy with relaxation techniques 	<p>The aim of surgery is to free up space in the spinal canal to relieve the pressure on nerves and vessels.</p> <ul style="list-style-type: none"> • Laminectomy involves removing parts of the vertebrae and ligaments that are making the spinal canal too narrow and putting pressure on the nerves and vessels. • Where the spinal stenosis is accompanied by spondylolisthesis, the chosen option is sometimes a combination of laminectomy and spinal fusion. In spinal fusion surgery, surgeon joins together the vertebrae in the affected section of the spine to keep them in place. One way of doing this is to use screws. If the spinal disc is damaged, the surgeon will remove it and fill the resulting gap with bone or a titanium implant. If you have both laminectomy and fusion surgery, you'll need to spend one to two days longer in the hospital than if you only have laminectomy. • Physical therapy is usually recommended for several weeks after the operation. It is important to keep active in everyday life and to strengthen your back muscles by doing regular exercises.
Who is the treatment suitable for?	<p>Conservative treatment is suitable for anyone who has spinal stenosis symptoms. The exact type of treatment depends on</p> <ul style="list-style-type: none"> • how severe the pain is and how much your mobility has been affected, • how long you've been experiencing the pain, • whether the pain has spread to one or both legs (sciatica), • what treatments you've already tried and how effective they were, and • whether you have any other health problems or take any medications that would prevent you taking certain painkillers. 	<p>Laminectomy can be considered as a treatment option for spinal stenosis if your symptoms are</p> <ul style="list-style-type: none"> • so bad that they're making day-to-day life difficult, • don't go away even after several months, • continue or increase despite conservative treatment, and • diagnostic imaging methods (typically an MRI scan) indicate that spinal stenosis is the cause. <p>Spinal fusion surgery is usually not performed if you have spinal stenosis but only have a mild form of spondylolisthesis, or don't have it at all.</p>

PROS AND CONS OF THE TREATMENTS

	Conservative treatment	Surgery
How effective is the treatment?	<p>How effective conservative treatments are depends on your individual situation. Lots of people manage to cope well with pain or restricted mobility using non-surgical treatment.</p> <p>Exercise helps you keep fit and strengthen your upper body muscles. On top of that, it tends to have a positive impact on your mood.</p> <p>Exercises and postures to reduce the strain on your spine can help relieve and control the symptoms.</p> <p>There isn't any good-quality research on whether certain treatments or combinations are more effective than others.</p>	<p>There has been very little research into whether surgery is more effective at easing symptoms than conservative treatment. The findings have been contradictory but generally show that surgery doesn't have any advantages.</p> <p>For people with lumbar spinal stenosis and mild spondylolisthesis: There has been a lot of good-quality research on whether it is beneficial to fuse the vertebrae in addition to laminectomy. The conclusion was that a combination of laminectomy and spinal fusion didn't offer any advantage over laminectomy on its own.</p>
What are the possible side effects?	<p>Anti-inflammatory painkillers like ibuprofen can cause stomach problems. Sometimes they cause stomach ulcers and heavy bleeding too.</p> <p>Strong painkillers can have side effects, including nausea, constipation, drowsiness, fatigue, dizziness, a dry mouth, low blood pressure and heart rhythm disorders (arrhythmias). Some medications can cause dependence if you take them for a long time. That's why the recommendation is to be very careful about using them and only take them for short periods. The same goes for muscle relaxants.</p> <p>Epidural injections can cause bleeding, infection, and nerve damage.</p>	<p>Temporary side effects like headache or nausea are possible, depending on the type of anesthetic used.</p> <p>Possible complications include infection, unintended damage to nerves and tissue in the area being operated on, or bleeding caused by damage to blood vessels.</p> <p>Painkillers prescribed in addition to surgery can cause side effects.</p> <p>On average, people who have a laminectomy combined with a spinal fusion procedure lose more blood and have to stay in the hospital longer than those who only have laminectomy. Fatal complications are also more common: they occur in 1 to 2 out of 100 people who have laminectomy without spinal fusion, compared to 3 to 4 out of 100 people who have laminectomy <i>with</i> a spinal fusion procedure.</p>
What remains unanswered?	<p>Even though conservative treatment is the norm for spinal stenosis, it's still unclear how effective it is.</p> <p>There hasn't been very much research into how different conservative treatments can be combined in an effective way.</p>	<p>It's not clear whether surgery can relieve symptoms more than conservative treatment.</p> <p>There hasn't been any research on the types of long-term complications that can be caused by laminectomy.</p>

YOUR DECISION

Now that you've read lots about your illness and the treatment options, you can use this section to weigh up the pros and cons of each treatment for yourself. Which treatment immediately appeals to you most? Which would you not want at all? Feel free to go back and re-read anything you want to check.

WHAT ARE YOUR CONCERNS?

You can use this table to note the main issues for you when considering the options.

If you like, you can take this decision aid with you to your next appointment and talk about it with your doctor.

Rank the statements below that apply to you: For instance, you could mark the statements that are especially important to you with a 1, those that are a little less important with a 2, and so on. You can add your own statements too.

Which statements apply to you?	Ranking (1, 2, ...)
I'm afraid of having surgery.	
I would only have surgery if the other treatments don't help at all.	
I'm usually able to cope with the pain in my day-to-day life.	
I don't want to have any scars on my back.	
I'm afraid of permanent nerve damage.	
I've now had the pain for so long that I can imagine having surgery.	
I'm worried about the side effects of the painkillers and injections.	

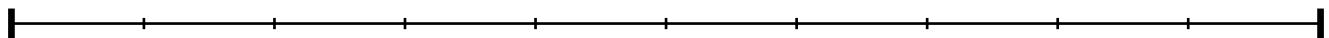
HOW FAR HAVE YOU GOT WITH YOUR DECISION?

You can use this section to record how far along you are in your decision-making process.

Mark where you are on a scale of 0 to 10.

0%

100%



I haven't decided yet.

I've made my decision.

WHICH TREATMENT WOULD YOU CONSIDER?

You can use this table to assess the different treatments. Mark the ones you would consider and write down what you like and don't like about them.

Which treatment would you consider?		What do you like about it?	What don't you like about it?
Conservative treatment	<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 pros and cons to consider, it can be hard to choose a treatment.

If you need more help:

- There are links to more information on the next page.
- You can talk to your doctor again.
- You also 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 services and self-help groups offer information, advise and a place to share experiences with others.

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

	Spinal stenosis and the treatment options informedhealth.org/spinal-stenosis-in-the-lower-back-lumbar-spinal-stenosis.html
	Chronic low back pain informedhealth.org/low-back-pain.html
	At the hospital informedhealth.org/at-the-hospital.html
	Surgery informedhealth.org/surgery.html
	Second medical opinion informedhealth.org/second-opinion-before-surgery.html

If this decision aid doesn't apply to your spinal disorder or the procedure you've been recommended, this one on treatment options for spinal disorders might be of help.

informedhealth.org/decision-aid-spinal-diseases-treatment-options.html

PREPARING FOR THE DOCTOR'S APPOINTMENT

Do you still have any questions? Is there anything still concerning you? 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 would like to know or discuss anything you're worried about.

You'll find a list of possible questions here:

informedhealth.org/list-of-questions

The format of this decision aid is based on the following:

- Ottawa Personal Decision Guide. O'Connor, Stacey, Jacobsen 2012. Ottawa Hospital Research Institute and University of Ottawa, Canada.
- MAKING SDM A REALITY – Hospital-wide shared decision making – G-BA Innovation fund 2023.

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:

informedhealth.org/our-approach

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