

Lumbar Laminectomy and Interspinous Process Fusion

Introduction

Low back and leg pain caused by pinched nerves in the back is a common condition that can limit your ability to move, walk and work. This condition is known as lumbar stenosis. Lumbar stenosis could be accompanied by disc herniation. Health care providers may recommend surgery for people suffering from lumbar stenosis.

If your health care provider recommends surgical treatment for your condition, the decision whether or not to have the surgery is also yours. This reference summary will help you better understand the benefits and risks of this surgery.



Anatomy

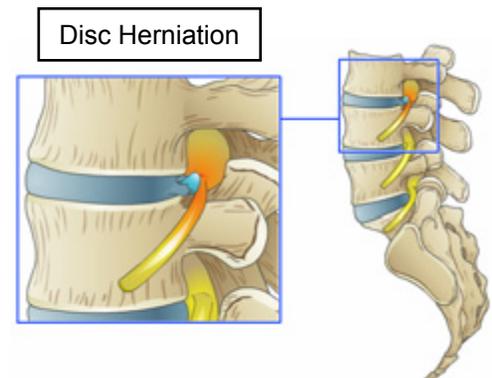
The spine protects the spinal cord and nerves that go to different parts of the body. The spine is formed of solid vertebrae separated by softer discs. Ligaments help hold the bones in place.

Symptoms and Their Causes

Sometimes a disc can bulge past the disc space and push on the nerves or spinal cord. This is called a herniated disc. Extrusion, free fragment and displacement are other names for disc herniation.

A bone in the spine may grow too much and put pressure on the joint. This is called a bone spur. Stenosis happens when bone or other tissue grows too much.

Arthritis of the spine, also known as spondylosis, causes damage to the joints in your spine. This condition often gets worse with age.



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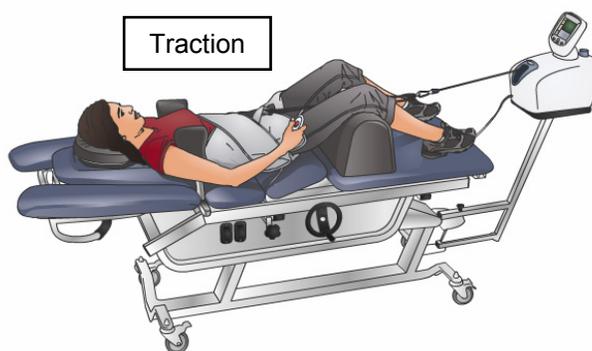
Thickened ligaments, herniated discs, bone spurs and arthritis can cause pain, weakness or numbness in your arm, leg or back.

If too much pressure is put on nerves in the spine, the weakness and numbness could involve both legs. Control of the bladder and bowels could also be affected.

At times there is too much motion between vertebrae. If this happens, a fusion of the involved vertebrae may become necessary.

Alternative Treatments

Use of a lumbar corset may help with the symptoms. A lumbar corset is a type of brace for your spine. Physical therapy may also relieve the symptoms. Traction could also be used. Traction is the use of a pulling force to treat muscular and skeletal disorders.



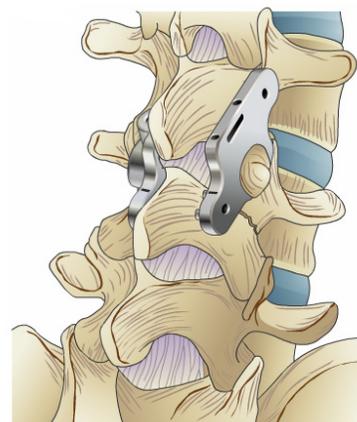
Medications can be helpful in decreasing the swelling and inflammation. Some medications may be injected directly around the nerve in the spine. When all else fails, an operation may help.

Surgical Treatment

The operation is usually done under general anesthesia. The spine is approached from the back. The bone, ligaments or discs causing the pressure are removed. This is known as spinal decompression. The discs are inspected during the operation. If part of the disc is pushing on the nerve, it is removed.

If your health care provider decides to fuse your back, they may use a special device that clamps to the spinous process of the vertebrae to be fused. A spinous process is a bone that sticks out from the back of a vertebra. Muscles and ligaments are attached to it.

Device Clamped to Spinous Processes



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Your surgeon may also decide to put some bone across the vertebrae. This bone can be from the bone taken out during the spinal decompression. The bone can also be from a cadaver. Cadaver bones are bones taken from patients who die and give their bodies to science. These bones are checked for diseases such as HIV and Hepatitis C.

The bone can either be placed on both sides of the spine or in between the vertebrae after the disc is taken out.

Special hard plastic material can also be placed in the disc space to ensure that the space does not collapse.

At times your surgeon may decide to place screws in the vertebrae and connect them with a rod. The exact type of procedure done often depends on what the surgeon finds during the surgery.

Screws and rods that are placed in the back do not usually need to be taken out, unless they move or break down. But this is rare.

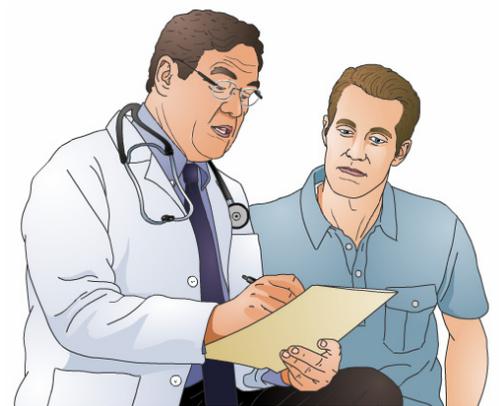
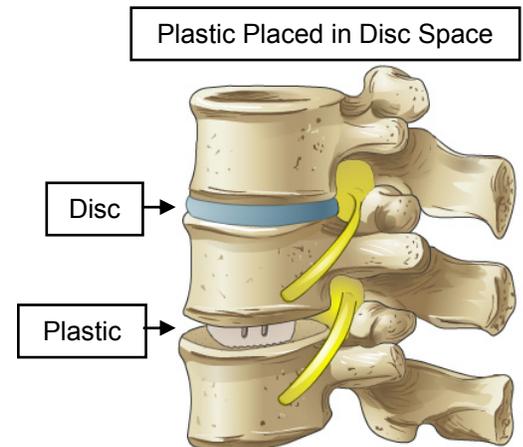
Some surgeons place chemicals in your back that cause your bone to grow from one vertebra to the other. BMP, or bone morphogenetic protein, is such a chemical.

Your health care provider will tell you how long you are likely to stay in the hospital. This depends on several factors, such as your age and medical condition. Depending on how well you do, you may go home the same day or within 2 to 3 days.

Risks and Complications

This operation is safe. There are, however, several possible risks and complications. These are unlikely but possible. You need to know about the risks and complications of the operation just in case they happen. By being informed, you may be able to help your health care provider detect complications early.

The risks and complications include those related to anesthesia and those related to any type of surgery. Risks of general anesthesia include nausea, vomiting, urine retention, cut lips, chipped teeth, sore throat and headache.



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More serious risks of general anesthesia include heart attacks, strokes and pneumonia. Your anesthesiologist will discuss these risks with you and ask you if you are allergic to certain medications.

Blood clots in the legs can develop due to inactivity during and after the surgery. These usually show up a few days after surgery. They may cause the leg to swell and hurt.

Blood clots can become dislodged from the leg and go to the lungs where they will cause shortness of breath, chest pain and possibly death. Let your health care providers know right away about any of these symptoms. Sometimes the shortness of breath can happen without warning. Getting out of bed shortly after surgery may help decrease the risk of blood clots in the legs.

Some of the risks are seen in any type of surgery. These include:

- Infection, deep in the disc space or at the skin level.
- Bleeding.
- Skin scars that may be painful or unsightly.

Other risks and complications are related specifically to this surgery. These again are rare. But it is important to know about them.



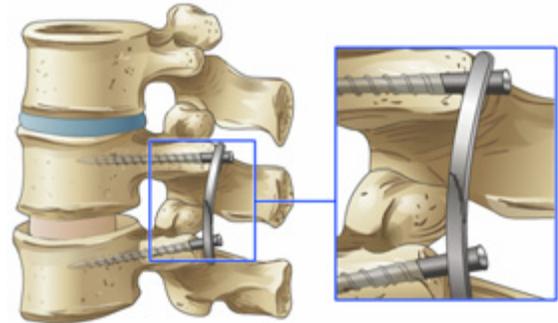
Fluid may leak from around the nerves. If a disc is found to be herniated and is taken out, there is a small chance that the blood vessels may be injured in front of the spine. This may result in bleeding that could be life threatening. The bowels could also be injured in front of the spine.

The nerves themselves could be injured, causing possible weakness, paralysis, bowel or bladder dysfunction and decreased sensation. It is rare, but sexual dysfunction may occur. This can be temporary or permanent.

A disc could become herniated again and scar tissue could form. The risk of having infections, such as AIDS or hepatitis, transmitted through a cadaver bone is highly unlikely. Though rare, this risk exists. There is also the possibility that the operation may not help the symptoms or may even make them worse.

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Some of the risks are related to the use of implantable devices to hold the fusion. These are rare. The medical device may crack before the bones are fused. If the device causes discomfort or if it slips out of place, it may have to be removed or replaced. These situations may require another operation.

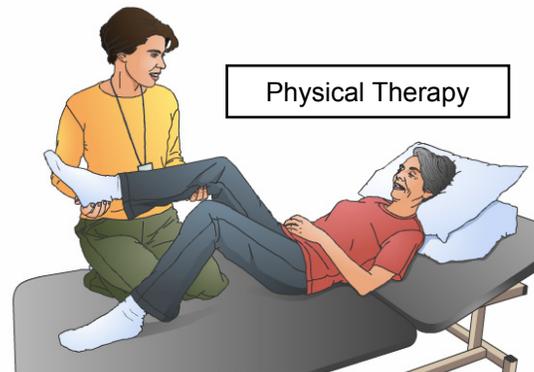


After the Surgery

No repetitive bending, twisting or heavy lifting is allowed in the few weeks following the operation. After a few weeks of relative rest, physical therapy may be needed before you can resume your previous activities.

Whether or not you will be able to resume all previous activities depends on how well you are doing at the time of your follow-up.

Your health care provider will tell you how long it will take before your back is healed and when you can go back to work. This depends on your age, type of work, and medical condition, as well as other factors.



Summary

Low back and leg pain caused by pinched nerves in the back is a common condition that can limit your ability to move, walk and work. This condition is known as lumbar stenosis. Thickened ligaments, herniated discs, bone spurs and arthritis can cause pain, weakness or numbness in your arm, leg or back.

Non-surgical treatments, including a lumbar corset, physical therapy, traction and medications may be tried before surgery. Surgery can help relieve your pain when other non-surgical treatments fail.

This operation is safe with excellent results. But as you have learned, complications may happen. Knowing about them will help you detect them early if they do happen.

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