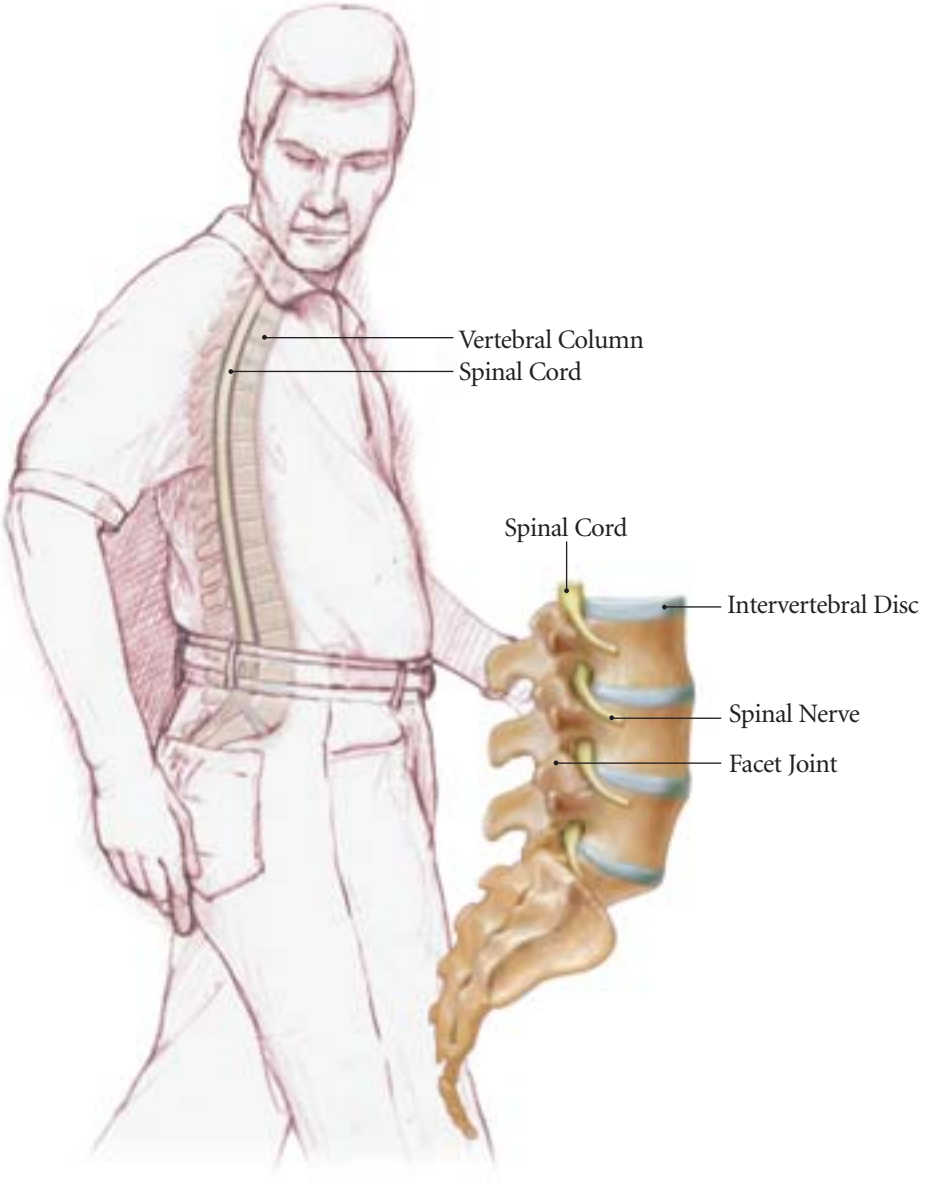
PATIENT EDUCATION

When Spine Fusion Surgery Is Needed

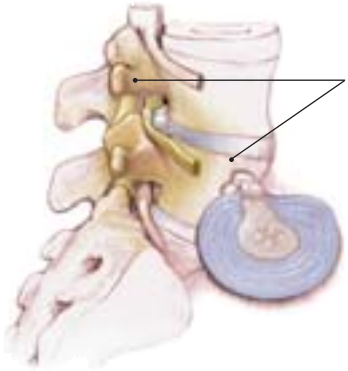
ORTHOFIX®

Why Spine Fusion Surgery

You have a painful back condition. If your doctor has suggested spine fusion surgery, it is probable your pain is being caused by changes or damage to your spine. Your spine is a column of bones (called vertebra) stacked on top of each other, with cushioning discs (intervertebral discs) between them. In the center of this vertebral column is your spinal cord. Spinal nerves arise from the spinal cord and exit the spine through spaces between the vertebral bodies.



Your back pain may arise from a variety of reasons, such as pressure on the spinal cord or spinal nerves due to changes in the surrounding bone, or from a ruptured or bulging vertebral disc. You may have an unstable spinal column, which allows bones to slip and rub against each other, or curvature in your spinal column, or damage to the vertebral bones. Back surgery allows a surgeon to remove the pressure and create a more stable spinal column. After surgery, when the bones fuse, the painful symptoms usually improve.



A bulging disc or herniated disc can press on the existing spinal nerve.

An unstable spinal column allows bones to slip and rub against each other, causing back pain and possible nerve damage.

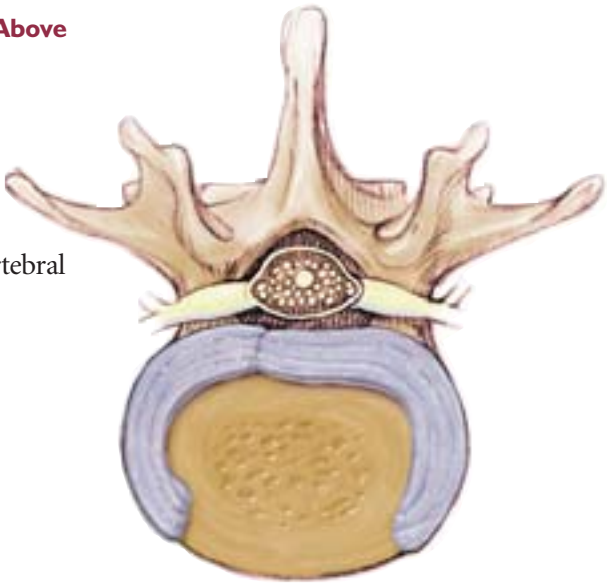
Changes to the bones and discs in your vertebral column from injury or degenerative disorders can cause back pain and sometimes nerve damage.

Spine Fusion Surgery

During a spinal fusion, pieces of bone are placed along the spine and sometimes between the vertebrae, which is called bone grafting. When the bone fuses, the vertebrae no longer move separately. This makes the spinal column more stable. Many surgeons may also use screws, plates, cages, metal rods and other implants in spine fusion surgery to increase stability.

Bone grafting, and often implants, are used to increase stability during spine fusion surgery.

View of Vertebra From Above



1. Portions of the intervertebral disc are removed.

2. The vertebral bone is roughened up and shaped to accept the graft and/or inplant

Other surgical procedures the physician may perform during the spine fusion surgery will treat problems involving the nerves and disc. If the vertebral disc is pressing on nerve tissue, the surgeon may remove all or part of the disc to release the pressure in a procedure called discectomy. Sometimes, part of the vertebral bone around the spinal cord or spinal nerve irritates the nerve tissue and this bone must be removed in a laminectomy or facetectomy procedure.

3. Bone graft is packed to fill the intervertebral space.

View of Spinal Column From Front After Surgery

4. Over time the graft will fuse the adjacent levels of vertebral bone to each other.

Is There Any Risk?

There are possible risks and complications associated with every type of surgery, such as side effects from anesthesia, bleeding, the need for blood transfusion, or infection. Risks associated with spine surgery include temporary increase in pain, or damage to the spinal cord or spinal nerve. Your doctor will discuss potential risks and complications with you before your surgery.

How Do I Prepare For Surgery?

It's important for you to prepare mentally and physically to have a successful surgery. You may find it valuable to talk to a professional counselor or family members to help during this adjustment period. To make surgery more effective, your surgeon may advise you to stop smoking, because there is a greater chance that your spine will not heal if you smoke. Your surgeon may also recommend that you lose weight to lessen the stress on your back. Learn proper body mechanics now to avoid further strain on your back and continue to use good techniques following surgery.

What Will Recovery Be Like?

Having realistic expectations about your recovery is important to the outcome of your treatment. It may take some time before your back heals, but you should take an active role in your recovery with help from your surgeon's office and physical therapist. Follow your surgeon's instructions about daily and personal activities and attend all scheduled follow-up visits to your physician. Then your surgeon can evaluate the progress of your fusion, and adjust medications if necessary.

Are There Treatments To Help Healing?

In many cases, your surgeon will prescribe a Spinal-Stim® Lite bone growth stimulator to help your bones fuse. Spinal-Stim is a medical device which is worn around your back and abdomen for a minimum of two hours a day. It is designed for a comfortable and flexible fit. Spinal-Stim uses a safe, low strength electromagnetic signal to activate the body's natural healing process. When Spinal-Stim treatment is used immediately following surgery, it has been proven that fusion success can be increased when compared to surgery without the use of Spinal-Stim treatment.

Will Surgery Make My Back Healthy?

Surgery may provide relief from your original symptoms, but you may still have some lingering problems. Restoring your back's health takes effort – it won't happen overnight. Sometimes it can take a year or longer for your back to heal.

Your general physical condition along with the original back problems that made surgery necessary in the first place will also affect spine fusion. High risk patients, such as patients who smoke, who are overweight, or diabetic, patients who have repeat spine surgery or patients with surgery at multiple levels, are more likely to have difficulties healing completely. Using Spinal-Stim treatment immediately after surgery is especially helpful for these patients, because it can increase the chance for fusion in high risk patients. Even patients who had surgery and did not heal on their own after nine months can benefit from Spinal-Stim treatment without additional surgery.

What Will My Insurance Pay?

Your surgeon's office, hospital business office, or your insurance office can advise you about your insurance coverage. Spinal-Stim treatment, if prescribed by your physician, is covered by most insurance plans, and is reimbursed under Worker's Compensation and Medicare Guidelines. Given specific guidelines and eligibility requirements, Spinal-Stim also guarantees bony fusion or payments will be returned.

Produced in consultation with Howard S. An, M.D., Rush Presbyterian St. Lukes Medical Center, Chicago, Illinois. This patient education brochure is not intended as a substitute for professional medical care.

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