

Education

Spinal Fusion

What is a spinal fusion?

A spinal fusion is a surgical procedure to "fuse" or join together two or more vertebra or bones of the spine. A fusion prevents movement between vertebra of the spine. The number of vertebrae that need to be fused together depends on how many are abnormal. A neurosurgeon or an orthopedic surgeon usually does the spinal fusion surgery. It is used only when other types of treatments have failed.

When is it used?

Conditions that may require spinal fusion include:

- injuries to the spinal vertebrae (such as a broken vertebra)
- disc problems in the back or neck
- abnormal curves of the back, like scoliosis
- a weak or unstable spine from infections or tumors.

How do I prepare for the procedure?

- Ask any questions you have before the surgery. You should understand what the surgeon is going to do and feel good about your decision to have the operation. A positive mental attitude will help you to recover more quickly.
- Plan for your care and recovery after the operation. Allow for time to rest and try to find other people to help you with your day-to-day duties.
- Follow your health care provider's instructions about not smoking before and after the procedure. Smokers heal more slowly after surgery. They are also more likely to have breathing problems during surgery. For this reason, if you are a smoker, you should quit at least 2 weeks before the procedure. It is best to quit 6 to 8 weeks before surgery. Also, your wounds will heal much better if you do not smoke after the surgery.
- Take a shower and wash your hair the night before surgery.
- Eat a light meal, such as soup or salad, the night before the procedure. Do not eat or drink anything after midnight and the morning before the procedure. Do not even drink coffee, tea, or water.
- Follow any instructions your health care provider may give you.

What happens during the surgery?

You will be given a regional or general anesthetic. A regional anesthetic numbs part of your body while you remain awake. It should keep you from feeling pain during the operation. A general anesthetic relaxes your muscles, puts you to sleep, and also prevents you from feeling pain.

The surgery can be done either from the front or back of the body. The surgeon will decide which approach is the best depending on the problem. The vertebrae are joined together by adding bone in the space between the vertebrae. The soft discs between the bones are sometimes removed if they are causing pain. The pieces of bone are usually taken from the outer pelvic bone. Bone from a bone bank may also be used. There is research being done with synthetic (man-made) bone rather than using real bone.

After surgery the bone heals and fuses together with the vertebrae. The bone will heal better if the spine does not move. Spinal instrumentation, such as rods, plates, wires, or screws, may be put in the back at the same time as the spinal fusion to keep the spine from moving while it heals.

What happens after the procedure?

After surgery, you will need to turn often. You will be shown how to "log roll" so that they can turn in bed without twisting the spine.

You may need to wear a brace for a while. Some braces will limit your ability to move while others are more for

support and comfort. The type of brace you will need depends on your specific surgery.

No bending, lifting, or twisting is allowed for 3 months after surgery while the back heals. After your health care provider can see that the bone is healing, you may need to begin a rehabilitation program to help you get back to doing your normal activities. This will include strengthening exercises.

The fusion keeps getting stronger for about 1 to 2 years. If pain returns, it is usually related to problems with vertebrae above or below the fusion.

What are the benefits of this procedure?

In most cases, spinal fusion can eliminate the pain and other symptoms. It is important for a back specialist to explain the options, risks, and benefits of spinal fusion.

What are the risks associated with the procedure?

- There are some risks when you have general anesthesia. Discuss these risks with your health care provider.
- A regional anesthetic may not numb the area quite enough and you may feel some minor discomfort. Also, in rare cases, you may have an allergic reaction to the drug used in this type of anesthesia. In most cases regional anesthesia is considered safer than general anesthesia.
- There is a risk of infection.
- There is a risk of excessive bleeding.
- The surgery may not relieve your pain. It may even be worse after surgery.
- You should ask your surgeon how these risks apply to you.

When should I call my health care provider?

Call your provider right away if:

- The wound is bleeding or oozing fluid.
- You develop a fever.
- You become short of breath.
- You are in a lot of pain.
- You develop numbness or weakness.

Call during office hours if:

- You have questions about the procedure or its result.
- You want to make another appointment.

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