

Health Topics

Patient Guide to Scoliosis Surgery

Scoliosis is a rotation of the vertebrae (building blocks) of the spine that causes it to twist like a spiral staircase. The cause of this rotation is not known in most cases. Surgery is usually done to prevent one or more of the following problems that can occur with more severe scoliosis:

- Decreased lung function
- Back Pain
- Poor Appearance

Surgery is generally done when it is safest: before these problems develop. Surgery, therefore, is recommended for those patients that the surgeon feels could later develop the problems listed above.

Two-Part Surgery

- Straightening the spine with rigid rods
- Adding bone graft to the curved area of the spine to fuse it in the correct position previously obtained by the rods. "Graft" refers to pieces of bone taken from other areas of the patient's body (i.e. usually from the pelvis) or the bone bank. The fusion prevents the spine from curving more.

After surgery, the patient is noticeably straighter, but not completely. Likewise, the x-ray usually looks better, but is not perfect. The curve that does remain, however, is not normally a problem.

Risks

There are certain risks with scoliosis surgery that patients and their parents should know about. It is important to keep in mind that your surgeon has recommended the operation because he or she feels that the benefits of the procedure outweigh the risks.

1. **Rod displacement:** In a small group of patients (5% of those having surgery), one or more of the hooks used to straighten the spine may move from its proper position. This usually is not uncomfortable to the patient. In some cases, this displacement does not require any treatment. In other cases, however, it is best to correct it by additional surgery.
2. **Infection:** A small group of patients get an infection (1 to 2 % of those having surgery, with an increased incidence in children with cerebral palsy). This occurs within the first several weeks of surgery. This generally requires washing out the infection and using antibiotics.
3. **"Pseudoarthrosis:"** This is a failure of the bones to fuse at any given level and occurs in 1 to 5% of patients who undergo surgery. This can lead to discomfort or partial loss of the correction. The condition, which takes several years to show up, is best treated by placing more graft in the area that has failed to fuse.
4. **Nerve damage:** This rare complication (occurring in 1 to 2 per 1,000 patients having surgery) happens due to force placed on the spine during curve correction. A patient with this complication experiences partial or complete weakness and/or numbness in one or both legs. He or she may also have bowel or bladder weakness. The nerves are constantly monitored by a special team of neurologists during surgery to prevent nerve damage.

5. **Rod discomfort:** Patients may experience minor discomfort anywhere from 1 to 5 years after surgery. This occurs in less than 10% of patients and is due to the rod rubbing on sensitive parts of the body. The rods are usually left in place because they are partially covered by the fused bone which provides the strength of the correction.
6. **Additional risks:** Other uncommon risks include illness from a blood transfusion, urinary infection, and allergy to a medication. Many steps are taken to prevent these from happening.

General Guidelines

- **Prior to surgery:** The blood bank should be contacted at least six weeks before surgery if the patients wishes to pre-donate his or her own blood. He or she should take a signed note from the doctor on the actual day of donation. Blood from parents and relatives is not recommended.
- **The day of surgery:** JH OR and Orthopaedic staff will give patients and their parents a great idea of what to expect, including everything from the pre-operative evaluation to recovery.
- **After-care:** the stomach is usually not working for the first two to three days after surgery, but then improves rapidly. Each pediatric orthopaedic surgeon has specific instructions for his/her patient's home care. Please see the "discharge instructions" from your physician for scoliosis surgery.
- **Discharge from the hospital:** usually three to four days after surgery.

Return to school or work: the patient may resume school or activity when energy permits. For most patients, this means 4 to 6 weeks after surgery. The patient may drive when energy permits as well.

Restrictions

- No lifting greater than 5 pounds
- No bending above the waist. It is important to bend from the hips and keep the back straight.
- No bicycling for 1 month after surgery.
- The patient may shower five days after surgery.
- No sports, running, or jumping for 3 months after surgery.
- There are no permanent restrictions after 6 months of the date of surgery.

Medications Given upon Discharge

- **Iron tablets: 1 tablet daily for 1 month.**
- **Vitamins: if you use them normally.**
- **Pain: Tylenol, 1 to 2 adult tablets every four weeks as needed to control pain. Take medication prescribed to you by the doctors as instructed for the first week at home.**

Remember that it is important to follow up in clinic six weeks after the date of discharge from the hospital.