



**NATIONWIDE  
CHILDREN'S**

*When your child needs a hospital, everything matters.™*

**Helping Hand™**

## Spinal Fusion

A spinal fusion with instrumentation is an operation done to correct the curvature of the spine. During surgery, rods with hooks, screws or wires are attached to the spine to correct and hold the spine while the fusion takes place. There are several names for the devices - called appliances - that are used to hold the spine in place. Your doctor will decide which one is best for you.

### Scoliosis

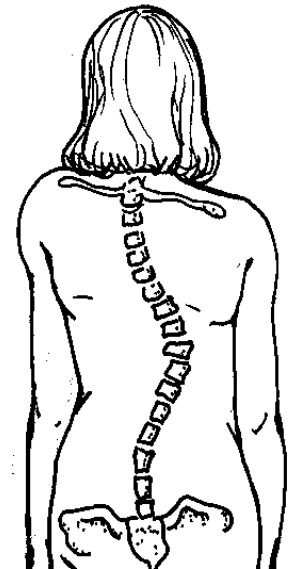
Scoliosis (skoh lee OH sis) is a twisting and/or curving of the spine (Picture 1). It often begins in the growing years of life, especially during the teens. There are several types of scoliosis. Three of the most common types are:

**Congenital** - A curving of the spine present at birth caused by a malformation of the vertebrae.

**Idiopathic** - A curving of the spine that usually appears during the adolescent years. The cause is not known.

**Neuromuscular** - A curving of the spine caused by a defect in the nervous or muscular system.

Scoliosis is sometimes noticed when one shoulder or hip looks higher than the other. In some cases, scoliosis can be treated with a brace to keep it from getting worse. In other cases where the curvature is more severe, surgery is needed.



**Picture 1**  
A type of scoliosis.

### Before Your Surgery

You may be sent for a Pre-Admission Testing (PAT) visit before your surgery or you may talk with a nurse and appropriate tests ordered without a specific visit to the hospital.

If you are sent for PAT, you will be contacted by phone or mail and given a date for your PAT appointment. Ideally this visit will be scheduled about 2 to 4 weeks before your surgery date. This visit usually lasts for 2 to 3 hours and will be scheduled in the morning. At this time, you will have the testing your surgeon has requested. Your medical history will be reviewed by a nurse and you will have a physical exam.

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## Before Your Surgery, *continued*

If you do not have to go the hospital for a PAT visit, you will be contacted by a nurse from PAT to review your medical history over the phone approximately 3 weeks before your surgery.

Whether you go to PAT or speak to a nurse over the phone, you will be given information about what to expect while you are in the hospital and after you go home. We will talk with you about pain control after surgery, and if needed, you will be taught how to use the PCA (Patient Controlled Analgesia) pump. Refer to Helping Hand HH-V-24, *PCA (Patient Controlled Analgesia)*.

### Anesthesia

You may meet with an anesthesiologist during your visit. You will be told about the anesthetic and the monitoring equipment. The doctor will answer any questions you may have. If you do not need to come for PAT, an anesthesiologist will review your medical history and call with any additional questions.

### Spinal Cord Monitoring

You may have a Spinal Cord Monitoring test (motor evoked potential and Somato-Sensory Evoked Potential Response). This is to test the way your nerves function. It is done in the Procedure Center with the Sedation (PASS) Team. The test takes about 2 hours.

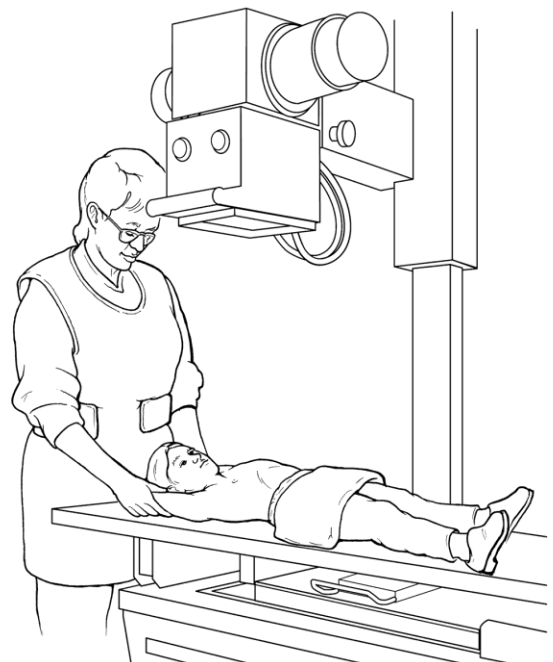
You will have flat discs and wires put on your head, back and legs. The discs and wires will be removed after the test. You will be given medicine through an IV to help relax you before the test. It is important to avoid drinks that have caffeine (such as colas, chocolate, and coffee) and foods that are high in fat (such as fried foods, ice cream, and cheese) for 8 hours before the test.

### X-rays

X-rays may be taken of your back while you stand in different positions. Chest X-rays may also be taken to check your lungs and heart (Picture 2). These are often done with your doctor at your preoperative appointment and do not need to be repeated.

### Lab Tests

Blood will be drawn for blood tests and you may be asked to give a urine sample. A pregnancy test for menstruating females is on the day of surgery.



**Picture 2** Having a chest X-ray.

## Other Tests

Other tests such as an electrocardiogram (EKG) or pulmonary function tests may be ordered. Tests may be ordered only if you have other health issues. These are **not** typically done at the time of the Pre-Admission Testing (PAT) appointment.

### EKG

An EKG records your heartbeat onto paper for the medical team to review. It is not painful and takes about 5 minutes. Refer to Helping Hand HH-III-6, *EKG (Electrocardiogram)*.

### Pulmonary Function Test

A pulmonary function test measures breathing capacity. This is not painful and takes about 15 minutes. Tests may be ordered only if you have other health issues.

## Dental Checkup

Be sure to make an appointment with your dentist for a checkup. It is important your teeth are in good condition (teeth cleaned, cavities filled, etc.) before you have surgery.

## What to Bring to the Hospital

You may bring items from home that you will need while you are in the hospital. Use this checklist as a reminder:

### Grooming Items

- Comb, hairbrush, mirror
- Shampoo and conditioner
- Barrettes, hair bands

### Personal Hygiene Items

- Deodorant
- Toothbrush and toothpaste
- Note to girls: The hospital has sanitary pads, but you may bring the type that is comfortable for you. **Please do not wear or bring tampons.**

### Clothing

- Slippers (must be skid resistant)
- Robe (tie-type)

### Other Items

- Crafts, playing cards
- Magazines and books
- Textbooks
- Movies (DVDs)
- Stationary and stamps

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## What to Bring to the Hospital, *continued*

- Please put your name on personal items from home.
- The hospital is not responsible for personal property. It is best to leave jewelry and other valuables at home. Leave cell phones, tablets and laptops at home.
- To meet hospital safety requirements, please ask the nursing staff to have any electrical appliances checked for safety.

## Before Surgery at Home

- Take a shower or bath with an antibacterial soap.
- Wash your hair at home the night before coming to the hospital (Picture 3).
- Do not use hair spray, gel or other hair products.
- Do not use hand lotions, creams, or powders on your skin.
- Do not shave your legs or arms within 24 hours before your surgery.
- Remove all nail polish and jewelry.
- Long hair should not be pulled back before surgery. Hair should be loose.
- You may eat your usual foods until 8 hours before surgery. During your PAT visit, you will be given more detailed instructions.



**Picture 3** Wash your hair the night before surgery, but **do not** use hair spray, gel or other products.

## Before Surgery at the Hospital

On the day of admission you will come to the Surgery Unit.

- Your parents will fill out some papers.
- Your temperature, pulse and blood pressure will be taken.

## After Surgery

- Most patients have a posterior fusion (from the back). However, if you are having an **anterior fusion** (from the front) you will go to the PICU after surgery. A tube will be placed in the side of your chest during surgery to help with drainage. The tube is connected to a plastic drainage container that provides suction. It will stay in place until the drainage stops (usually a couple days).
- The nurses will help you turn from side to side (“log rolling”).

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## After Surgery, *continued*

### Information for Parents

The surgery may take 6 hours or longer. After that, your child will be in the Post Anesthesia Care Unit (PACU) for about 2 to 3 hours. Depending upon when your child leaves the Pre-Op holding, it may be 8-10 hours before your child returns to the unit floor.

You may wait in the Surgery Family Waiting Room while your child is in surgery. Please tell the receptionist who you are. If you plan to leave the Surgery Lounge, tell the receptionist where you are going so she can find you and page you, only if absolutely necessary.

The doctor will talk with you after surgery.

When your child arrives at the unit, his or her nurse will review the doctors' orders with you and will answer any questions you may have. After your child comes back from surgery, up to 2 caregivers (parents, guardians) over the age of 18 may stay overnight in the child's room. (No siblings may stay overnight.) If you need a place to sleep overnight, please talk with your child's nurse.

### PICU Visiting

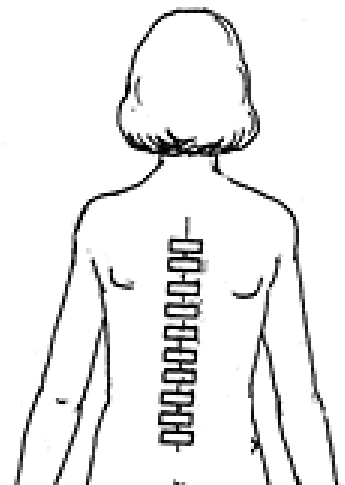
Your child may need to be admitted to the Pediatric Intensive Care Unit (PICU) after surgery. The staff of the PICU will work with you to plan a visiting schedule and to decide who will visit and when.

## Nutrition

You may need to take a multivitamin or an iron supplement before surgery if you are donating your own blood. Refer to Helping Hand HH-II-124, *Blood Donation: Autologous*. Check with your surgeon about this. After you go home, you may eat your usual foods unless your doctor tells you otherwise. It is important to eat a balanced diet after surgery to promote healing. Do not try to lose weight during this time. You should drink a lot of non-caffeinated liquids and eat lots of fresh fruits and vegetables.

## Care of the Incision and Personal Hygiene

- There may be plastic over the incision and tape-like strips called Steri-Strips® (Picture 4).
- You will be able to take a shower after you go home unless your doctor instructs you otherwise.



**Picture 4** Back incision with Steri-Strip® closure.

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## **After Surgery, *continued***

### **Activity**

- Your activities at home after surgery will depend upon your doctor's instructions. The kind of activity allowed is different for each person.
- You should avoid rough activity and contact sports.
- Be sure to walk every day, gradually increasing the distance as you feel comfortable.
- Be sure to follow your doctor's orders and ask any questions you may have.
- No bending, lifting, pushing or pulling until your doctor says it is okay.

### **When to Call the Doctor**

Call the doctor if any of the following occurs:

- Drainage or a foul odor from the incision
- Fever over 101 degrees Fahrenheit, taken by mouth
- Incision gets red
- Incision gets more tender or swollen
- Incision begins to separate
- Increase in back pain.