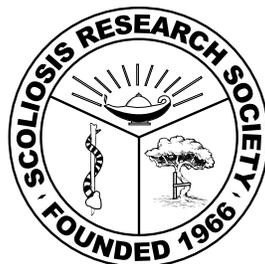
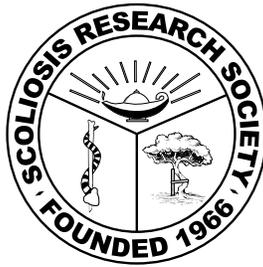
An illustration of a person's back, showing the spine and pelvis. The spine is highlighted in a light blue color, and the pelvis is shown in a darker blue. The person's hair is dark and pulled back.

Surgery for Adolescent Idiopathic Scoliosis Frequently Asked Questions

A Handbook for Patients





Scoliosis Research Society

Dedicated to Education, Research and Treatment of Spinal Deformity

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Preface



The Scoliosis Research Society’s Patient Education Committee has prepared this booklet to provide patients and their families with answers to frequently asked questions about surgery for Adolescent Idiopathic Scoliosis. Just as no two individuals are exactly alike, no two patients with a spinal deformity are the same. Therefore, your spinal deformity surgeon should be the most important source of information about your particular case. This information is intended as a supplement to the information your physician will provide.

It is not intended that the contents of this manual be interpreted as standards or guidelines proposed by the Scoliosis Research Society (SRS).

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Pre-op Preparation



Have a positive attitude towards your upcoming surgery. Discuss any questions you may have about your surgery with your surgical team. Make sure to include your medical doctor in those conversations as well since they may have known you longer than your surgeon.

What should I bring with me to the hospital?

CLOTHING: You will be in the hospital for a few days, and being prepared will make it a little easier. Many hospitals will allow you to wear your own clothes after surgery. Button-down shirts and loose-fitting clothing are comfortable and easy to put on, as raising your hands over your head may be painful for a little while after surgery. Slippers with soles that grip help with walking around on the hospital floors. Parents should bring layers to keep comfortable.

ENTERTAINMENT: There will be hours of rest following surgery, so be sure to bring things to keep you occupied. Books and electronics (tablets/computers/smart phones) are helpful. Don't forget the chargers! Many parents have said that reading to your child, even an older child, is a great way to entertain a child who may not feel like doing anything active.

SUNDRIES: Lips and skin can get dry after surgery, so lip balm and skin cream can be very helpful in maintaining comfort.

Do I need to do anything special before my surgery?

Check with your surgeon to see if any medications or tests are advised prior to surgery. Some surgeons may discuss taking medications such as iron to help rebuild red blood cells after surgery. Your surgeon may want you to avoid taking aspirin and similar medications such as ibuprofen and naproxen for a few days before surgery, as these can act as blood thinners and increase bleeding during surgery. Additionally, some surgeons recommend a special skin wash before surgery to minimize the risk of infection. Avoid contact with sick people if at all possible. Please notify your surgeon if you feel ill before your surgery. Even a common cold can affect your recovery after surgery. In those situations, your surgical team may recommend delaying surgery to avoid complications during and after surgery.

Should I take my regular medications before surgery?

If you take any regular prescription medications, you should take the medication at the normal schedule with a sip of water, even if it is the morning of surgery. However, be sure to discuss this with your surgeon prior to surgery.

What if I am having my period at the time of surgery?

It is not unusual for the stress around surgery to bring on a young woman's period, even if it is not her regular time. You can feel free to bring your own hygiene products in anticipation of this happening.

Surgery



What is done during the surgery?

Your surgeon will give you details about the surgery that has been recommended for you. However, the typical surgery for idiopathic scoliosis is a posterior spinal fusion. With this procedure, implants will be attached to your back bones (usually screws and/or hooks) and then a rod is connected to these implants to move the spine into a corrected position. For more details, please read the Patients and Families section on the SRS website (<https://www.srs.org/patients-and-families>) and the Adolescent Idiopathic Scoliosis patient handbook prepared by SRS (https://www.srs.org/UserFiles/file/AdolescentIdiopathicScoliosis_AHandbookforPatients.pdf).



Who will be in the operating room with me?

It takes a lot of people to perform spine surgery safely. In fact, it is not unusual for 8-10 people to be in the operating room. The personnel usually includes: your surgeon and their assistant(s) to perform the actual surgery, an anesthesiologist to put you to sleep and monitor you during the surgery, a scrub tech to hand instruments to the surgeon, circulating nurses to ensure everything is running smoothly, a radiology technician to run imaging machines like fluoroscopy and x-rays, and, typically, a neurophysiologist to monitor the spinal cord during the procedure. Sometimes, an implant technician from the company that makes the screws, hooks and rods, may also be present in the room to provide technical support. However, the only people who will be performing the actual surgery are your surgeon(s) and their assistants.

Can parents come into the operating room?

This depends on the policy of the hospital's operating room and is something to discuss with your surgeon. When parents are allowed into the operating room, it is usually until the patient has fallen asleep. Afterwards, parents are typically required to leave and do not watch the surgery.

Will I wake up during the surgery?

This is a common concern among patients having general anesthesia. However, with modern anesthetic techniques and monitoring, you do not need to worry about waking up during the surgery by accident. On very rare occasions, surgeons will wake patients during surgery on purpose to check the function of the spinal cord, but this is not very common. Even when it happens, patients rarely remember waking up.

Will I require a blood transfusion as a result of the surgery?

Scoliosis surgery can be a very large surgery and involves bleeding. While most patients do not require a blood transfusion as a result of their surgery, a few patients will. Surgeons use a variety of methods to reduce the risk of needing a blood transfusion and you should talk to your surgeon about the specific techniques they use. If your surgical team determines that you are very anemic as a result of the bleeding during surgery, you may be given a blood transfusion to prevent side effects of the anemia.

Is it possible to get my own blood back if I need a blood transfusion?

Yes, in fact, there are two ways to get your own blood back. Many surgeons utilize a technology called cell-salvage where blood that is lost is sucked into a special system that cleans and concentrates the red blood cells. This blood can then be transfused back into the patient at the end of the surgery. A second option is called auto-transfusion. While not as common as cell-salvage, particularly in children, this technique has patients donating their blood several weeks prior to surgery and then get the blood back, if needed, during or after their surgery.

Do I need a plastic surgeon to close my incision?

Many patients are appropriately concerned about the appearance of the scar on their back and ask about the possibility of using a plastic surgeon to close the wound. In most practices, plastic surgeons are only used in complex cases where there is concern about getting the wound closed. Fortunately, this is rarely the case in otherwise healthy patients with adolescent idiopathic scoliosis. In fact, the appearance of scars after surgery have more to do with the patient's own healing than the surgeon closing the wound.



Pain



Will I have pain after surgery?

Yes, you will have some pain after surgery. However, the pain generally improves over several days and can be managed with a variety of medications.

How will my pain be controlled?

Most surgeons use specific protocols with a variety of medicines to control your pain after the surgery. Please ask your surgeon and nurses about your specific pain management protocol. Pain management after surgery is a very important aspect of recovery after surgery and your surgical team places a lot of emphasis on making sure you are comfortable after surgery.

I'm concerned about the possibility of becoming addicted to narcotic pain medication.

Patients taking narcotics for a short period of time post-operatively are unlikely to become addicted. Appropriate use of pain medication allows patients to get out of bed and mobilize after surgery, speeding up recovery. Surgeons will work to make sure narcotic medications are not used for any longer than necessary and that you are transitioned quickly to non-narcotic pain medication.

Hospitalization



Will I need a brace after surgery?

No. Even if you were braced prior to surgery, modern implants do not require brace support. There is usually no need for a brace after surgery.

How long will I be in the hospital?

Most patient hospital stays average between 3 to 5 days. The time in the hospital is influenced by the length of the surgery, patient mobility and comfort and hospital practices. Please check with your surgeon for a more specific expected time in the hospital.

Will I be able to eat right after surgery?

Even though you will not have eaten for many hours by the time your surgery is over, it is unlikely that you will feel hungry right away. You will start by drinking clear fluids once you are fully awake and gradually progress to regular food over the next day or so depending on how your stomach feels.

Can I lie on my back after surgery?

There are no restrictions to how you lie down after surgery. Most people are actually most comfortable on their back initially.

How will I go to the bathroom after my surgery?

After you are asleep in the operating room, the nurses will place a catheter that temporarily stays in your bladder. This will allow the doctors to monitor your urine output during the surgery. You will wake up with this catheter in place. The catheter is usually removed 1-2 days after your surgery. It doesn't hurt to take out, but does feel funny. Afterwards, you will go to the bathroom the same way you always do, either using the toilet or a bed pan. You may be constipated for a few days after surgery. Your surgical staff and the nurses will work on activities and medicines that will help with your bowel movement.



Going Home



How will I get home?

Most patients go home in a regular car with parent(s) and/or relatives. Sitting in a seat that reclines with lots of pillows can be very helpful. You can try to arrange your last dose of pain medicine in the hospital to be about 20-30 minutes before you take the ride home. Expect some increase in pain on the day you return home because of this increased activity.

What medicines will I take at home?

Usually, you will be sent home with a combination of medications to improve pain and prevent constipation. The pain medications are usually some combination of a narcotic and non-narcotic medication. Stool softening medications are usually prescribed to prevent the constipation that results from the surgery and the use of pain medication. Finally, any medicines you were taking before the surgery will be continued.

Will I be able to go up and down stairs at home?

If you have stairs at home, therapy will work with you on stairs in the hospital. It may be slow going at first, but you should be able to navigate stairs. If there are a lot of stairs to get to the bedroom, some patients prefer to stay on the first floor for a little while until feeling better.

Will I need a hospital bed or special mattress?

No. You can sleep in a regular bed. You may want some extra pillows to help support you.

Do I need physical therapy?

While in the hospital, you will get daily physical therapy to help you get up and around. When you get home, we encourage you to be as active as possible while maintaining comfort. For most patients, daily walking is all the exercise that is needed to recover from the surgery. However, your surgeon will ultimately decide if physical therapy may be of benefit to you after you leave the hospital.

Can I shower when I go home from the hospital?

Showering depends on your surgeon. Some surgeons let their patients shower within days of the surgery. Other surgeons want you to keep the back dressing on and ask you not to shower until after the first post-op check. Please check with your surgeon for specific instructions.

How can I make my scar as minimal as possible?

Scarring is a major concern for most patients. The most important determinant of scar healing is your biology. Some people simply heal with fainter scars than others. However, there are things you can do to help the healing process. Direct sunlight on your scar should be avoided, especially for the first 6-12 months. Apply sun block to the scar and/or wear a shirt full time, even at the beach. There are also commercially available scar products but there is no proof that these are any better than simply keeping the scar moisturized and out of direct sunlight.



Returning to Normal Life



What are some problems I can expect in the first few weeks after surgery?

You may notice some *numbness or tingling* around the back scar and possibly on your thighs. This is not unusual. The numbness on the thighs will improve over time, but the numbness around the scar usually remains.

Constipation is another common problem, caused by intestines that are slowed by narcotic pain medication and the stress of the surgery itself. After the surgery, you are also not moving around as much as normal and will generally have a decreased appetite. The best treatment is to drink plenty of water, be seated upright or walk as much as possible, and use a stool softener medication.

What are my restrictions?

You should talk to your surgeon about specific restrictions. Different surgeons have different restrictions on how you move your back and what activities you can participate in. In general, walking is encouraged but running and sports will be limited for at least several months after the surgery.

When will I be able to go back to school?

Every patient is unique in when they will be recovered enough to sit for a full day of school. In general, most patients are able to return to school 4-6 weeks after surgery. To avoid getting too far behind, many schools offer a home tutor that can help you keep up with your studies. When you return to school, it may be easiest to do half-days for the first few days so you can ease back into a normal schedule.

What about carrying a backpack and other heavy things?

Many surgeons suggest not carrying or lifting anything more than 10 pounds for the first few weeks after scoliosis surgery. At 6 weeks after surgery, backpacks are usually not an issue. At 3 months after surgery, most lifting restrictions are removed. However, check with your surgeon for specifics.

When can I return to my sports, dance and other physical activities?

In general, most patients are not ready to return to vigorous physical activities until 3 months after surgery. However, you should talk to your surgeon for specific timelines on a return to sports and physical activities.

Long Term Concerns



Will my waist, back and shoulders still be uneven, even after surgery? (Or will my waist, back and shoulders be perfect after surgery?)

Nearly all patients will have a decrease in the rib bump on their back and improvement in their hip and waist asymmetry. Shoulder asymmetry is less predictable, but usually improves as well. Although the asymmetry is improved, expect some asymmetry to remain as the improvement is rarely 100%. You should talk to your surgeon about what to expect based on your curve pattern and the particular surgery being performed.

How will the rods affect my spine's mobility and my activities?

You will permanently lose motion over the portion of your spine where the rods are placed but will still have flexibility above and below the rods. Once you have recovered, you should be able to do almost all the activities you did before surgery.





Will I set off metal detectors at the airport?

Spine implants rarely set off metal detectors. If they do, you will be required to undergo a second screen according to TSA regulations. This can include a hand-held metal detector (wand) and/or a pat down. Doctor's notes or implant cards do not change the need for a secondary screen and are not necessary for travel.

Do I need to take antibiotics before any dental work?

While people undergoing heart valve implants are recommended to take antibiotics prior to any dental work, antibiotics are NOT required when you go to the dentist after scoliosis surgery.

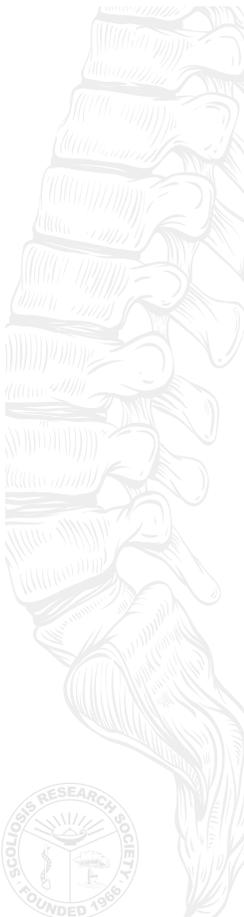
Is it safe to get an MRI after surgery?

Yes. MRIs are safe with the spine implants used during scoliosis surgery. The only effect of the implants is that it will distort the MRI picture around the spine, making it more difficult to see spine anatomy.

Can I safely deliver a baby in the future after scoliosis surgery?

Yes. Scoliosis surgery should not impact fertility, the ability to carry a baby safely to term or the ability to deliver a baby vaginally or by C-section. However, if your lower lumbar spine has been fused as part of your scoliosis surgery, it may not be possible to place an epidural catheter for pain control during delivery. Please consult with your surgeon regarding your specific surgery and any limitations.

Where Can I Get More Information?



The best information about your specific condition typically comes directly from your surgeon. You can check to see if your surgeon is a member of the Scoliosis Research Society (SRS) by going to <http://www.srs.org/find/>. Membership in SRS indicates that at least 20% of the doctor's practice is in spinal deformity, that they attend annual meetings, and stay current with new information and new research.

In addition to the Scoliosis Research Society's website (www.srs.org), there are other reputable organizations and resources that may offer further information about surgery for Adolescent Idiopathic Scoliosis.

Here is a list of some patient resources that may be of assistance:

- orthoinfo.aaos.org/ – American Academy of Orthopaedic Surgeons
- www.posna.org – Pediatric Orthopaedic Society of North America
- www.nih.gov – National Institutes of Health
- www.srs.org/UserFiles/file/AdolescentIdiopathicScoliosis_AHandbookforPatients.pdf - SRS Adolescent Idiopathic Scoliosis Handbook
- <http://etext.srs.org/> – SRS provides information through the E-Text as an educational service. E-Text material is not intended to represent the only, or necessarily the best treatment for the medical situation's discussed, but rather is intended to present an approach, view, statement or opinion of the chapter author(s) that may be helpful to others who face similar situations. SRS disclaims liability for all claims that may arise out of the use of techniques demonstrated therein by such individuals.



Your Support Can Change the Lives of Others with Spinal Deformities



Please consider a donation to SRS.

100 percent of all contributions and donations to the Scoliosis Research Society's (SRS) Research, Education Outreach (REO) Fund are used entirely for research, outreach programs, and educational scholarships and fellowships seeking improved treatments, the causes and possible prevention of spinal deformities. Operating funds for SRS come from membership dues, educational meetings and courses, publication sales and other sources.

With your support, SRS can continue to support and offer necessary educational opportunities, beneficial research grants and maintain effective advocacy efforts that will change the lives of those living with spinal deformities.

If you would like to make a donation to the Scoliosis Research Society, please fill out the form below and mail it to:

Scoliosis Research Society
555 East Wells Street, Suite 1100
Milwaukee, WI 53202-3823 USA

Please make checks payable to Scoliosis Research Society.

If you would like to make your donation online, please go to www.srs.org/support/donate_now.htm

YES! I would like to donate to the Scoliosis Research Society (SRS) to help continue in fulfilling its mission to improve the lives of patients with spinal deformities!

Enclosed is my gift of: \$10, \$20, \$35, \$50, \$100, \$150, Other _____

This gift is (in honor/in memory) of _____

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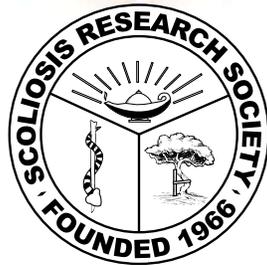
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