

During scoliosis surgery

Reviewed by SickKids Staff | Last updated: December 08, 2020

Find out what happens when your child enters the operating room to when they are moved into their room. A guide for what your child can expect during scoliosis surgery.

Key points

- Each surgery is performed by an interprofessional team, which include the orthopaedic surgeon and their team, an anaesthetist, a neurophysiologist and operating room nurses.
- During surgery, your child's blood pressure, heart rate and oxygenation levels will be closely monitored.
- Your child's spinal cord function will be monitored in real time with neuromonitoring probes throughout the duration of the surgery.
- A large bandage will be placed on your child's back after surgery and they will be moved into the recovery room for close monitoring. You may visit your child in the recovery room.
- Most children do not experience complications after scoliosis surgery.

During scoliosis surgery, your child will be under anaesthesia and will be looked after by an interprofessional team of health-care professionals, including the orthopaedic surgeon and their team, an anaesthetist, a neurophysiologist and operating nurses.

In the operating room

In the operating room, the nurse will help your child settle in. The anaesthetist will give your child sedating medicine. Your child can choose to receive the sedating medicine through a needle or a flavoured mask. The medicine will not wear off during the surgery so your child will not wake up until the surgery is completed. The anaesthetist will give your child medicine to reverse the anaesthesia when the surgery is over.

To safely monitor your child during the surgery, an arterial line , will be used to monitor your child's blood pressure, and monitoring stickers and probes will be used to monitor your child's heart rate and oxygenation levels. The nurses will also insert a tube into your child's bladder

called a Foley catheter, as it will be difficult for your child to get to the toilet/urinate after the surgery. The neurophysiologist will attach many small probes along your child's body. These probes will monitor your child's spinal cord function in real time during the surgery to help the surgeon safely perform the surgery. Your child's surgeon may also place a drain in their back before closing the surgical wound. This drain will be removed two to three days after the surgery.

Here is an animation series to show what happens during surgery.

Scoliosis: Posterior Spinal Fusion

Go to:

https://www.aboutkidshealth.ca/assets/Animations/Animation/Scoliosis%20Surgery/scoliosis_sur

to view this web only media.

During the operation, your child will lie on their belly on a special bed designed to support each part of their body. The surgeon makes an incision down the middle of your child's back. The surgeon will cut through skin, fat, and then muscle to reach the vertebrae (the bones that form the spinal column). Even though the tips of the vertebrae can be felt through the skin, the body of the vertebrae are actually deep in your child's back.

In order to straighten the spine, rods will be inserted. These rods are very strong, even though they are only the width of a pencil. The rods will be attached to your child's spine with hooks and screws. The surgeon will first insert the hooks and screws into the vertebrae; then the rods will be inserted into the hooks and screws, which holds them tightly in place. The surgeon will bend the rods with special tools to get the best position for the spine.

After the rods are positioned, your child's surgeon will rough up the surface of some vertebrae or your child's hip bones. The bits of bone that are collected are then ground up into tiny pieces and placed back over the rods and vertebrae. Over time, these bits of bone will act like a cement and fuse the vertebrae together. This increases the strength of the new shape of the spine.

Once the surgery is complete, each layer—the muscle, the fat, and the skin—will be sewn back together. Some hospitals use internal stitches, and some use staples. Once the layers are sewn together, your child's nurse will cover the area with a thick dressing. Once your child has healed, they will likely have a scar where the incision line was.

After the surgery

When the surgery is complete, a large bandage will be placed on your child's back. The anaesthetist will reverse the anaesthesia, and your child will wake up. Your child will be moved from the operating room to the recovery room. They may lie in any position that is comfortable.

Once your child is in the recovery room, you may visit them there.

Will there be complications?

Most children do not have any complications after scoliosis surgery. However, it is important to know that complications are possible and that they may affect your child's surgery experience.

If your child has a complication from surgery, it may affect their experience in different ways. They may have more pain or need more surgery. Their hospital stay may be longer than usual, or they may need to take more medication for a longer period of time. Your child's surgeon will outline the potential risks of scoliosis surgery when you sign the surgical consent form.

For more information, see [Immediate risks of scoliosis surgery](#).

At SickKids

For more information about surgical procedures at SickKids, please see [Coming for surgery](#).
For information about eating and drinking before surgery, please see the [NPO Guidelines](#).

Resources

For more information on scoliosis, see the [Scoliosis Learning Hub](#).

Please visit [AboutKidsHealth.ca](https://www.aboutkidshealth.ca) for more child health information.

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