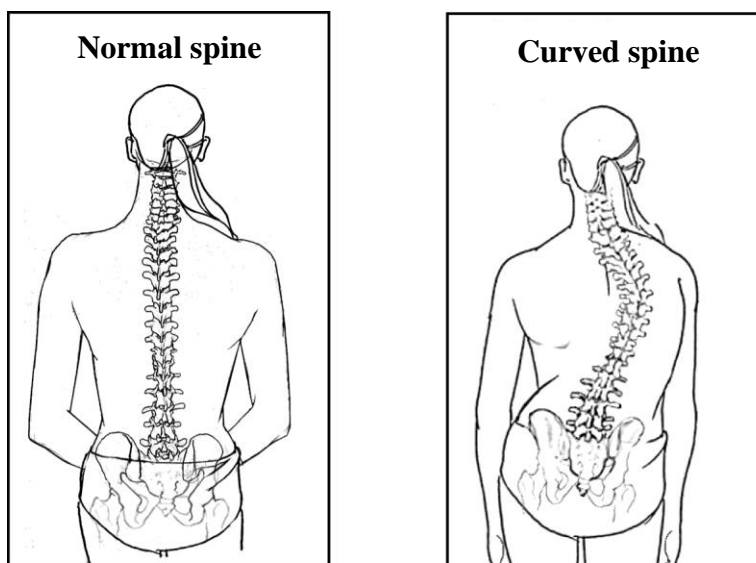


What is a spinal fusion?

A spinal fusion is a surgery that joins or fuses some of the bones of the spine. These backbones are called vertebrae. It is often done to treat an abnormal curvature (curve) of the spine, also called scoliosis.

- Fusing the bones helps to prevent the curve from getting worse.
- It may not correct the curve all the way.



How do you do a spinal fusion?

Most often, there are 3 ways to do a spinal fusion. The time it takes your child to recover depends on:

- Your child's health and overall medical condition
- The degree of curve in the back
- The type of spinal curve and how flexible the curve is

Ways to do a fusion include:

- Anterior – done on the front part of the spine through an incision in your child's side.
- Posterior – done on the back of the spine through an incision in the back of the body.
- Anterior-posterior – done on the front and back part of the spine through 2 incisions.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Spinal fusion, continued

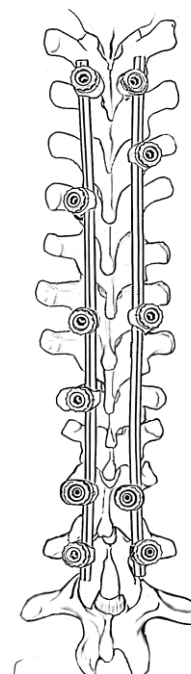
All 3 ways use pieces of bone to fuse the backbones together. This is called a bone graft. The graft:

- Grows into the spaces between the backbones to fuse them together.
- Helps to keep the position of the bones in place and hold them straight.

The bone graft can come from either:

- A bone bank from someone who has donated bone. This is called an allograft and is the most commonly used technique.
- A piece of bone from your child's own pelvis. This is called an autograft and is used in certain situations.
 - Your child may have another incision over the lower portion of their back.
 - It should not affect how your child walks or runs.

Typically, metal rods are used to help hold the bones in place until the bones grow together.



Rods

What happens before surgery?

Follow the doctor's advice to get ready for surgery. Your child may need:

- A pre-operative (pre-op) visit to meet with the anesthesia team. During surgery, they will give medicine to your child to put them into very deep sleep. This is to make sure they do not see, hear or feel anything.
- Blood and urine tests.
- X-rays.

Several weeks before surgery:

Have your child eat foods with lots of iron and protein for several weeks. This includes:

- Meats
- Nuts
- Eggs
- Green, leafy vegetables

Days before surgery:

- The doctor may advise your child to use Miralax (an over-the-counter laxative) for 2 to 3 days. This will help to prevent constipation (hard bowel movements) after surgery.
- Have your child drink lots of fluids the day before surgery so they are well hydrated.
- Pack your child's things. Be sure to include a robe or loose-fitting shorts and t-shirts. You may also wish to bring a tablet or books.

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Spinal fusion, continued

- If your child likes to chew gum, pack some in your suitcase. Chewing gum after surgery can help your child's bowel function return to normal faster.

Before you come to the hospital:

- If your child has long hair, wash it and put it up using a metal-free ponytail holder.
- Wash your child's skin with CHG wipes as advised in pre-op clinic.
- Your child should not wear contacts, makeup, jewelry or nail polish to the hospital on the day of surgery.

You can call the Child Life department at 404-785-8648 to schedule a tour of the surgery area with your child.

What happens after surgery?

Your child will go to the PACU (recovery room) after surgery. Many children will then be moved to the surgical floor. Some children may need to stay in the intensive care unit (ICU) if the doctor thinks they need special care.

Your child may look a little pale and have a puffy face for 1 to 2 days. This is normal and is caused by the position of the body during surgery. The puffiness will improve as your child starts moving.

Care in the hospital

Monitors and checks

- Your child may need oxygen to help them breathe easier as they wake up. If so:
 - A soft face shield will blow an oxygen mist into your child's face.
 - A machine called a pulse oximeter (or pulse ox) will monitor your child's oxygen level. A wire connects the machine to a bandage on your child's finger.
- A machine called a cardiac (heart) monitor will check your child's heart rate and breathing rate. Thin wires connect the monitor to 3 electrodes on your child's chest. These electrodes feel like stickers and will not hurt your child.
- The care team will check:
 - Your child's temperature, heart rate, breathing rate and blood pressure often, even at night.
 - The feeling and movement of your child's legs and feet often, even at night. This is to help make sure the nerves and blood vessels in your child's legs are working well. Be sure to tell the doctor or nurse about any changes in your child's legs or feet.

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Spinal fusion, continued

I.V.'s, drains and tubes

- Your child will have 1 or 2 I.V.'s. (I.V. stands for intravenous, or in the vein.)
 - They will get an antibiotic (a germ-killing medicine) through the I.V.
 - Your child will also get fluids through the I.V. until they can drink and eat.
 - When your child can drink well without getting sick, the care team may turn off the I.V. fluids.
 - The I.V. cap will remain in place until your child does not need the I.V. anymore.
- While your child is sleeping during surgery, the care team will put a small, soft tube called a Foley catheter in place. The tube is put into the same opening where they urinate (pee).
 - The tube will drain urine from your child's bladder into a plastic bag or container.
 - The care team will empty the bag or container several times throughout the day and night. This helps the nurse and doctor keep track of your child's body fluid level.
 - The care team will most often remove the tube on the morning after surgery. After that, they will help your child get up to the bathroom.
- Your child may also have a drain in their wound called a Hemovac. It drains extra fluid from the wound into a small container. The doctor will remove it 1 to 2 days after surgery.

Pain control

Your child may:

- Get pain medicine through the I.V. by using a patient controlled analgesia (PCA) pump. The nurse will teach your child how to use the pump as soon as your child can use it on their own. When your child starts drinking and eating after surgery, the care team may turn off the PCA pump.
- Get pain medicine through the I.V. from the nurse.
- Soon start taking pain medicine as a liquid or pill.

Let the nurse or doctor know if your child does not get enough pain relief to sleep, turn or walk as needed.

Other things your child can do to help with pain include:

- Tell the care team what has helped in the past.
- Breathe deeply and slowly.
- Watch TV or movies.
- Listen to music.
- Think about their favorite place.

Moving around

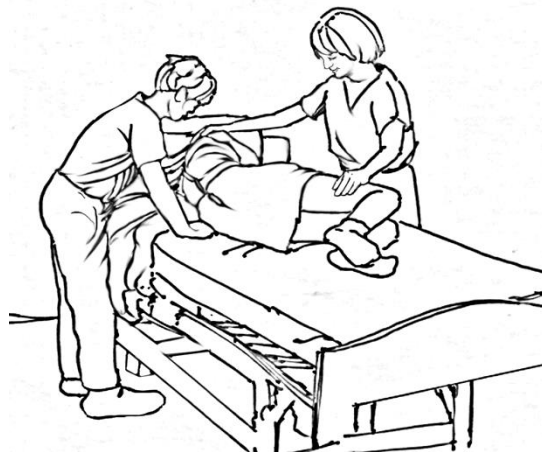
The care team will help your child change position often, even at night. **It is very important to start moving early.** This helps keep the lungs clear and prevents soreness and skin problems. Physical therapy will start the day after surgery.

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Spinal fusion, continued

- If your child has a PCA pump, they can give themselves a dose of pain medicine before or after turning to help decrease pain.
- When turning, your child will need to keep their body and back in a straight line. The care team will help your child roll in 1 continuous motion. This is called a log roll. As your child starts to feel better, they can help turn themselves.

Log roll



The physical therapist (PT) will start working with your child the morning after surgery to help them figure out the best ways to move around.

- The first goal will be to get out of bed and sit in a chair for at least 1 hour.
- The PT will help your child progress their activity every day to include getting in and out of bed, standing, walking and walking stairs (if needed).
- The PT will also go over 3 guidelines with your child and help them figure out how to add them into their daily routine. They are:
 1. **No bending.**
 2. **No lifting.**
 3. **No twisting.**
- The doctor may order a special brace for your child to wear after surgery. If needed, it can help keep your child's back from moving too much while it heals.
- **The sooner your child starts moving, the faster their back will heal.**

Blood test

- Your child's doctor may order a blood test the morning after surgery.
- This helps the doctor know if your child's blood counts are normal.

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Spinal fusion, continued

Care of the lungs

The care team will give your child a small device called an incentive spirometer.

- A nurse or respiratory therapist will teach your child how to use it. This helps prevent pneumonia and other lung problems.
- Many children have a slight fever after surgery. Using the incentive spirometer often can help your child's temperature return to normal.
- Hugging on a pillow while coughing puts less strain on your child's back.

Feelings

- Your child's feelings and mood will improve as their activity level increases and as they start to feel better.
- When your child is able to sit in a chair and walk to the bathroom, they may feel better if they take a sponge bath or brushes their hair.
- Many times, teen girls have irregular periods after surgery. This is normal.

Eating and drinking

- Right after surgery, your child may only be allowed to have small amounts of ice chips or sips of clear liquids. The nurse and doctor will listen to your child's stomach for "gurgling" or bowel sounds to make sure it is working well.
 - At first, they may not hear very much. This is normal.
 - Normal bowel sounds will return as your child's activity level increases. As bowel sounds return to normal, the doctor will let your child drink clear fluids and then go back to their regular diet. This may take a few days.
- Let the nurse know if your child feels nauseated (stomach upset). The nurse can give medicine through the I.V. to help your child feel better.
- Your child may start to swallow pain medicine when they can drink clear fluids and eat small amounts of food.
- Constipation is trouble having a bowel movement.
 - It sometimes happens from taking pain medicine and being less active.
 - Have your child drink plenty of fluids and start moving around as much as they can to help prevent this.

Care at home

Incision care

- If your child has a bandage when they go home, you can remove the bandage on day 7, or 1 week after you have gone home.

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Spinal fusion, continued

- Your child may have Steri-Strips, which are small strips of tape, over the incision. These most often fall off on their own in 1 to 2 weeks.
- Stitches are most often on the inside and do not need to be removed.

Pain control

- Your child may need pain medicine for 1 to 2 weeks after going home. The doctor will give you a prescription. Your child can stop taking pain medicine little by little over the first week.
- Do not give any over-the-counter medicines unless advised by the doctor.
- Make sure your child changes position often, so they do not get sore from staying in 1 position too long. Walking often will help soreness go away over time.
- Have your child focus on things they enjoy like TV, movies, music, books or games with friends. This will help take your child's mind off their pain.

Washing hair

- Your child may wash their hair every day.
- Wash your child's hair this way until the doctor says it is OK remove the bandage:
 - Place a chair next to the tub.
 - Have your child lay across it with their head under the faucet. It may be helpful to use a small hose with an attached sprayer.

Taking showers

- Your child may shower right away after surgery. They should try to keep their back as dry as possible. They may shower the front of their body and the back of their legs. They may get their back wet after the bandage has been removed.
- At first, your child may feel dizzy or faint when they shower.
 - Stay nearby for the first few times your child showers.
 - Place a waterproof chair in the shower.
 - Advise your child to:
 - Use warm, not hot, water.
 - Use a mild soap around the incision.
 - Pat the incision dry after the shower.
- The doctor will let you know when your child may take baths or go swimming, most often after 3 to 4 weeks.

Sleeping and resting

- Your child may sleep in their own bed at home and will not need a special hospital bed.
- It is OK for your child to sleep in whatever position they find most comfortable.
- Make sure your child uses pillows for support like they did in the hospital.

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Spinal fusion, continued

- Have them take rest breaks often during the day and then increase their activity and walk more each day.

Eating

- Make sure your child eats the right foods and drinks enough fluids to help them heal and get stronger.
- Have them eat:
 - Foods high in protein, iron and calcium, such as:
 - Peanut butter
 - Eggs
 - Meat
 - Cheese
 - Milk
 - Yogurt
 - Green, leafy vegetables
 - Foods high in fiber, such as:
 - Whole-grain cereals
 - Bread
 - Fruit
 - Raw vegetables
- Sometimes eating 5 or 6 small meals a day will keep your child from feeling too full after eating.
- Have your child drink plenty of fluids to help prevent constipation. They can use 8-ounce (oz) glasses to drink 6 glasses of water each day.

School

- The doctor will let you know when your child may return to school. This is most often in 2 to 4 weeks.
- When your child returns to school, they may want to start with half days for the first week.
- Schoolbooks are heavy to carry. A couple tips for your child include:
 - Ask a friend to carry their books from class to class.
 - Keep a set of books at home and at school, so they do not have to carry them back and forth.

Activity

- Talk with your child's doctor about when your child may return to PE class.
- Let the doctor know what sports your child plays, so they can let you know when your child may start again.
- Your child may be able to start light exercise, such as swimming, in 2 to 3 months.
- The doctor will let you know when your child may drive. This is most often about 6 weeks after surgery. They should always wear their seatbelt.

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Spinal fusion, continued

- Walk, walk and walk! This will help your child get better faster. They may go up and down stairs, but make sure they use a railing to feel more secure.
- Do not allow your child to lift anything over 10 pounds until the doctor says it is OK.
- It is often easier for your child to sit in a firm or hard chair rather than in a low, soft chair.
- Have your child bend at the knees and hips if they need to pick up something off the floor. They should not bend or twist at the waist.

When should I call the doctor?

Call the doctor if your child has:

- A temperature of 101°F or higher and does not have a cold, flu or other sickness.
- Increased redness, swelling, tenderness, pain or warmth at the incisions.
- Drainage or bad smell coming from the incisions.
- Open areas along the incision line.
- Pain that does not get better with pain medicine.
- Numbness or tingling in the arms, legs or feet.
- Changes in bowel or bladder control.

Also call if you have any questions or concerns about how your child looks or feels.

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

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