

Posterior Spine Fusion Surgery

What Is Posterior Spine Fusion?

During a posterior spine fusion, a bone graft is used on the back of the spine to fuse two or more vertebrae together. The surgery lasts between 2 to 5 hours and depends on the number of spinal levels involved.

Who Benefits From Posterior Spine Fusion Surgery?

Children who have conditions such as [spina bifida](#), [cerebral palsy](#) and muscular dystrophy can have abnormal muscles or nerves. When the muscles and nerves that support the spine are imbalanced or weak, it can lead to neuromuscular scoliosis. If your child has severe curves, surgery can help correct or control the curve.

How Posterior Spine Fusion Helps

Posterior spine fusion can straighten a crooked spine or spine curvature, improve breathing, reduce back pain and improve sitting and balance.

What To Expect With Posterior Spine Fusion Surgery

There are a few different types of surgeries available depending on your child's condition. They include:

- Spinal fusion surgery which permanently joins backbones together.?
- Vertical expandable prosthetic titanium rib (VEPTR) surgery if your child has severe curves that cause an inability of the chest to support normal breathing or lung growth (also known as thoracic insufficiency syndrome).?
- Magnetically driven Growing Rods (MdGR) for children who have early-onset scoliosis, if bracing is ineffective. Expandable, magnetic rods are implanted and act as internal braces to keep the curve from getting worse as your child grows. The rods can be lengthened during outpatient visits with a noninvasive remote controller. Gillette is the first hospital in the region to use this FDA-approved treatment.?

Preparing For Surgery

A pre-operative phone call with a physical therapist may be beneficial. They can answer your questions regarding your child's mobility, transfers, equipment and transportation. Another thing to look at is the size of your child's wheelchair. Consider scheduling a joint seating evaluation prior to surgery to determine if your child needs a new wheelchair or a growth kit. Your provider can order a joint seating evaluation.

Before surgery, it is important to analyze the fit of your child's current sling. The best option for slings after a fusion is a high back sling with head support. If your child's head is near the top of the current sling, you will need to order a new sling. To ensure delivery prior to surgery, order 30-60 days prior to surgery.?

During Your Child's Hospital Stay

A typical hospital stay lasts anywhere from 4-10 days. Make sure to bring your child's wheelchair, as it will need to

be adjusted to fit their new spine alignment. A seating specialist will assess your child's seating needs and evaluate if a new seating system is needed for their wheelchair.

Bring any orthotics and a walker, if necessary. Most children are able to use a sling for transfers, but the final decision is made by the surgeon.

Rehabilitation And Recovery

For the first three months after surgery, your child will experience 90-degree hip flexion restriction. Your child should not twist, side-bend or lift more than 10 pounds. Your child will also have to get on their bed without twisting, so log rolling is suggested.

If your child eats orally, they will be allowed to slowly restart eating as the stomach "wakes up" from surgery. If your child has a gastrostomy tube, prior to surgery, the tube will be converted to a g-j tube. They will initially be fed via the j-tube and advance to the g-tube as tolerated. Once they tolerate their feeds via the g-tube port, the g-j tube will be converted back to a g-tube.

Your child's physical therapist will provide transfer training and mobilization techniques. Your child will be able to return to using standers and gait trainers after they discharge from the hospital.

Your Care Team

At Gillette, you'll have access to fellowship-trained pediatric orthopedic experts that specialize in spine surgery. Whether your child needs spinal fusion surgery to treat scoliosis, forward rounding of the back (also known as kyphosis), spondylolisthesis, or spine problems related to other complex conditions, our goal is to improve your child's quality of life and prevent future health problems.

In addition to spinal fusion surgery, your child's comprehensive treatment plan might include working with experts from a variety of specialties:

- [Orthopedics and surgical inpatient care](#)
- Pediatric intensive care
- [Radiology and imaging](#)
- [Rehabilitation medicine](#)
- [Rehabilitation therapies](#)
- Surgery
- [Orthotics, Prosthetics and Seating](#)
- [Gait and motion analysis](#)
- Minnesota's first Level I Trauma Center for Children
- Adult Services (for older teens and adults)

Make An Appointment

651-290-8707

Refer a Patient

651-325-2200

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at **651-229-3890**.