Tethered Spinal Cord

What Is Tethered Spinal Cord?

Tethered spinal cord occurs when the spinal cord becomes attached (or tethered) to tissues surrounding it. When tethered spinal cord occurs, the spine isn’t free to move normally. As a result, the spinal cord is pulled or stretched, which interferes with its blood supply, which in turn sometimes causes nerve damage.

What Causes Tethered Spinal Cord?

Tethered spinal cord is often linked to spina bifida. More than 40 percent of children who have spina bifida will need surgery to untether the spinal cord during their lifetimes. In most of those cases, the spinal cord is tethered to the tough membrane called the dura, which covers the spinal cord.

Other causes of tethered cord syndrome include:

- Dermal sinus tract (a rare congenital disability).
- Diatemyelomyelia (a split spinal cord).
- Lipoma (a benign, fatty growth).
- Previously treated tumor.
- Thickened/tight filum terminale (a delicate, threadlike tissue near the tailbone).
- A history of spine trauma or spine injury.
- Previous spinal cord surgery.

Tethered Spinal Cord Symptoms and Effects

Sometimes children who have tethered spinal cord don’t develop symptoms and therefore don’t require treatment. Roughly 40 percent of kids who have tethered spinal cord after repair of myelomeningocele or lipoma develop significant symptoms.
The first signs of tethered spinal cord might be visible on the lower back. Visible symptoms might include:

- A spot of discolored skin.
- A wound or lesion.
- A patch of hair.
- A deep dimple.
- A fatty tumor.

The most common tethered cord symptoms are:

- Trouble walking or standing.
- Leg or back pain.
- Changes in bladder and bowel function.
- Increased spasms or stiffness (also known as spasticity).

- **Scoliosis** that gets worse over time.

**Tethered Spinal Cord Diagnosis and Treatment**

If you think your child has a tethered spinal cord, the following tests might help diagnose the condition and its severity.

- **CT scan.**
- **MRI.**
- **Ultrasound** (usually used only for infants).
- **Urological testing.**
- **X-rays.**

**Surgery**

Surgery for tethered spinal cord is usually the best treatment for kids who have declining nerve function or problems with movement.

Tethered cord surgery usually involves releasing (untethering) the spinal cord from the surrounding attached tissues. Surgery early on can help prevent additional deterioration of nerve function. Long-term monitoring can help make sure the spinal cord doesn’t become tethered again.
Medication

Medicines can’t treat tethered spinal cord. However, they might ease pain or reduce muscle spasms and tightness associated with the condition.

Integrated Care

If your child has tethered spinal cord, you’ll find care and support in a family-centered environment at Gillette Children’s Specialty Healthcare. Our leading pediatric neurologists and neurosurgeons will work closely with you to create a custom treatment plan for surgical and rehabilitative care.

It’s possible your child will continue to experience pain, weakness, difficulty walking or other medical issues after surgery to untether the spine. Our multidisciplinary team of specialists offers services to make sure they have everything they need to feel comfortable, confident and cared for.

Your child or family member might receive care from specialists in one of the following areas:

- **Neurology.**
- **Neurosurgery.**
- **Pediatric Rehabilitation Medicine.**
- **Gastroenterology.**
- **Occupational therapy.**
- **Physical therapy.**
- **Radiology and imaging.**
- **Rehabilitation therapies.**
- **Urology.**

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