
Understanding Tethered Cord Syndrome

Tethered cord syndrome is a problem with the bottom of the spinal cord. It becomes attached to tight tissues that don't let the cord move and grow normally in the spinal column. As a result, the cord itself stretches too much. Its blood supply may be reduced. This can cause back pain, difficulty walking, urinary incontinence or urgency, and other symptoms.

In some cases, tethered cord syndrome may not be diagnosed until a person is a teen or adult. But it's most often found in young children with spina bifida.

What causes tethered cord syndrome

Tethered cord syndrome can happen in many children who have a severe form of spina bifida called myelomeningocele. This is when the spinal canal doesn't close before birth. It forms a pouch filled with fluid and nerve tissue on the outside of the lower back. It can also happen in a child with a form of spina bifida called lipomyelomeningocele. This is when a lump of fat forms at the spine in the lower back.

In some cases, this syndrome may be caused by or made worse by things such as:

- Infection
- Tumor
- Spinal surgery

Symptoms of tethered cord syndrome

A child may have these symptoms in the middle of their lower back:

- A soft lump made of fat (lipoma)
- A deep dimple
- A patch or tuft of hair
- A red or brown spot on the skin

A child may also have:

- Lower back pain that gets worse with activity
- Pain in the legs
- Numbness or tingling in the legs
- Loss of bladder and bowel control
- Trouble walking
- Pain in the spine
- Sideways curving of the spine (scoliosis)

- High-arched feet
- Hammertoes
- Difference in leg strength on either side

In adults, symptoms can include:

- Loss of bladder and bowel control
- Severe lower back and leg pain
- Pain in the rectum and genital area
- Numbness in the legs
- Muscle weakness in the legs

Diagnosing tethered cord syndrome

This syndrome is diagnosed with one or more imaging tests such as:

- **MRI.** This test uses strong magnets and a computer to create 3-D images of the spinal cord, nerves, and other tissues in the lower body.
- **Myelogram.** This is an X-ray taken after a special fluid is injected into the lower spine. It shows images of the spinal cord and nerves.
- **CT scan.** This test uses a series of X-rays and a computer to create detailed images of the spinal cord and nerves.
- **Ultrasound.** This test uses sound waves and a computer to make images of the spinal cord.

Treatment for tethered cord syndrome

Unless symptoms are not severe, surgery is done to treat the problem. This may be done at the same time as surgery to repair a myelomeningocele or other form of spina bifida. The tight tissues holding down the spinal cord are cut. This releases the cord. In some cases, a small amount of bone in the spine is removed if needed. As a child grows, the surgery may need to be repeated.

When to call the healthcare provider

Call the healthcare provider for any of these:

- Symptoms that don't get better, or get worse
- New symptoms