

Spondylolysis and Spondylolisthesis

What Is Spondylolysis? What Is Spondylolisthesis?

Spondylolysis (spon-dee-low-lye-sis) is a stress fracture that occurs in one of the vertebrae in the spine. It often causes back pain in children and teens. In most cases, spondylolysis affects the lowest vertebra of the lower back.

Another condition, called spondylolisthesis (spon-dee-low-lis-thee-sis), occurs when the stress fracture weakens the bone so much that the vertebra shifts out of place.

What Causes Spondylolysis and Spondylolisthesis?

The exact causes of spondylolysis and spondylolisthesis are unknown. Several risk factors might increase the risk of developing the conditions:

- Having a family history of spondylolysis or spondylolisthesis.
- Having certain birth defects or injuries.
- Being a teenager.
- Participating in sports that require frequent extension of the spine or stress on the lower back, such as football, gymnastics, dancing, diving, lacrosse, track and field, and weightlifting.

Spondylolisthesis and Spondylolysis Symptoms and Effects

In most cases, pain isn't a symptom of spondylolysis or spondylolisthesis. Some kids describe having dull, aching discomfort in the low back that worsens after participating in sports or other physical activities that put stress on the lower back. In severe cases of spondylolysis and spondylolisthesis, children might withdraw from physical activities because of significant pain.

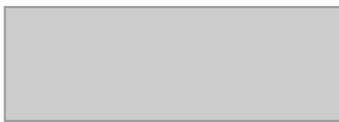
Other symptoms might include:

- Stiffness.
- Muscle spasms.
- Pain radiating down one or both legs (also known as sciatica).
- Numbness.
- Tingling.
- Weakness.
- Changes in posture or gait.

Spondylolysis and Spondylolisthesis Diagnosis and Treatment

At Gillette Children's Specialty Healthcare, diagnosing spondylolysis and spondylolisthesis includes reviewing your child's medical history, performing a physical examination and conducting tests that might include:

- **X-ray**: Spine X-rays taken at a slanted angle and from the side help determine if any vertebrae are out of place. It is difficult to diagnose spondylolysis and spondylolisthesis using X-rays only.
- **MRI**: MRIs provide more detailed images of the vertebrae, including signs of a stress fracture—such as swelling or swelling caused by excess fluid (also known as edema).
- **CT scan**: If needed, a CT scan provides a more detailed view of the vertebrae's bony structure.



Nonsurgical treatments

Gillette specialists typically first recommend nonsurgical spondylolisthesis or spondylolysis treatments to relieve pain and encourage the vertebrae to heal with the best possible spine alignment. Your child's treatment for spondylolisthesis or spondylolysis might include:

- Rest or stopping the activity that is causing pain until the pain goes away.
- Physical therapy to stretch and strengthen muscles, and to increase flexibility in the abdomen and back. Exercises for spondylolisthesis or spondylolysis can prevent further injury or recurrence of pain.
- Back braces might relieve pressure from the lower back, relieve pain and promote the best posture during healing.
- Medications, such as aspirin and ibuprofen, might help relieve pain.
- Steroids injections into the spine might reduce pain.



Surgery

In very rare cases, children don't respond to nonsurgical treatments or vertebrae can press on nerves. In these situations, your child might need spondylolysis or spondylolisthesis surgery—such as limited **spinal fusion**.

Integrated Care

At Gillette, you'll have access to a team of nationally recognized pediatric orthopedic specialists that understand how spondylolysis and spondylolisthesis can affect health, self-esteem and quality of life. Our goal is to help your child achieve the highest levels of health, independence and happiness.

Your family will work closely with experts on a custom and comprehensive treatment plan that meets your needs. Specialties and services most often involved in caring for kids who have spondylolysis or spondylolisthesis include:

- **Orthotics.**
- **Radiology and imaging.**
- **Rehabilitation therapies**, including **physical therapy**.
- **Child life.**

Make An Appointment **651-290-8707**

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**.