



NATIONWIDE CHILDREN'S
When your child needs a hospital, everything matters.™

Helping Hand™

Health Education for Patients and Families

Sports Medicine: Spondylolysis

Spondylolysis (spon-dy-LOL-i-sis) is a stress fracture of the vertebrae (back bones). The fracture does not involve the main weight-bearing part, or body of the vertebrae. This kind of fracture is located between the bony bulges of the vertebrae. It results from a weakness in a section of the vertebra. The exact cause of the weakness is not known. It is usually a result of overuse from excessive hyperextension (arching of the back) or hyperextension with rotation.

Signs and symptoms

- chronic low back pain that often worsens with hyperextension or with twisting at the waist
- less commonly, sudden start of low back pain
- pain that gets worse with activity
- low back pain that may be in the middle or off to one side and may spread to the buttocks or hamstrings
- stiffness of the lower back

Increased risk

- sports that require lots of recurring hyperextension or rotation combined with hyperextension
- strength imbalance between core and back muscles
- males
 - 10- to 15-year-olds
- family history
 - poor hamstring flexibility

Treatment

- Rest period

- A period of rest from sports or doing any activity is typically recommended. This time may vary based on symptoms but may be as long as 3 months. A gradual return to full sports often happens following proper care.
- Braces and exercises
 - A brace may be used if your health care provider recommends it.
 - When you are able, rehabilitation with a physical therapist or athletic trainer is advised.
- Medicine
 - Anti-inflammatory medicines, such as ibuprofen (Motrin® or Advil®) or naproxen (Aleve®) may be recommended by your health care provider. Take these as directed by your health care provider.
 - Other minor pain relievers, such as acetaminophen (Tylenol®), may be used.
- Use of heat and cold
 - Cold should be applied for 10 to 15 minutes every 2 to 3 hours and after any activity that makes symptoms worse. Use ice packs or an ice massage.
 - Heat may be used before stretching and strengthening activities prescribed by your health care provider or athletic trainer. Use a heat pack or a warm soak.

How to prevent

- use proper lifting technique
- do correct warm up and stretching before practice or competition
- maintain proper conditioning, back and hamstring flexibility, strength and endurance and cardiovascular fitness

If sports or activities are restarted too soon, the symptoms could reappear, or healing may be delayed. This could cause long-term problems like chronic pain and the fracture not healing, disability, and slippage or movement of one vertebra on another.

When to call the health care provider

Call your health care provider or the **Sports Medicine team** at **614-355-6000**:

- if symptoms worsen or do not improve after 2 to 4 weeks of treatment
- if you have numbness, weakness, loss of bowel or bladder function or other new symptoms

To schedule an appointment with Sports Medicine, visit NationwideChildrens.org/SportsMedicineScheduling or scan this code with your camera phone.

