

Spondylolysis

One possible cause of pain in the lower back in adolescent athletes that can be seen on an x-ray is that of a stress fracture in one of the vertebrae making up the spinal column. The condition is referred to as spondylolysis. It often ends up affecting the fifth lumbar vertebra within the lower part of the back, and rarely, the fourth lumbar vertebra.

Individuals who are born with a thin vertebral bone are prone to developing this condition. Growing at a rapid pace can also encourage slippage in the vertebra. Malnutrition or eating disorders can also contribute to this problem by causing bone thinning.

Certain sports are more prone to causing this, and these include any sports where extension of the spine is prevalent. Gymnastics, athletics, trampolining, and weightlifting can all contribute. Younger females are at higher risk.

Spondylolysis Anatomy

The vertebra is made of different sections. Between the back and the front of the vertebra is a bridge, and this is known as the pars.

Due to repeated stress on the spine, this part of the vertebra can sustain a stress fracture or crack, and this is known as a spondylolysis or pars defect.

A spondylolysis is hard to diagnose without an X-ray or MRI scan. They mimic other more common forms of mechanical lower back pain. They are usually picked up randomly, possibly years later. A spondylolysis is not necessarily painful, they can be pain free or just cause minor lower back ache. However, they can develop into a spondylolisthesis which is where the vertebra slips forwards following on from a spondylolysis.

How to Treat Spondylolysis:

1. Nonsurgical Treatment

The initial treatment for this condition is always nonsurgical. You need to take a break from those activities causing you pain until the symptoms are gone, which often happens. An anti-inflammatory medication can help to relieve pain in the lower back.

Back braces and physical therapy are often recommended. In the majority of cases, activities can be resumed slowly without having to worry about a lot of complications or recurrences.

Strengthening and stretching exercises for the abdominal and back muscles can help to prevent future recurrences of pain. Having regular x-rays will help determine whether the vertebra is moving in position.

2. Surgical Treatment

Surgery might be required if the slippage continues to get progressively worse or the back pain isn't responding to nonsurgical treatment methods. When the pain begins interfering with your normal daily activities, surgery might be the only option to correct the problem. Spinal fusions are performed between the sacrum and the lumbar vertebra. An internal brace of rods and screws is often used to hold the vertebra together until the fusion has time to heal.

Tips:

- Gymnastics, athletics and weightlifting place a tremendous amount of stress on the bones found in the lower back. Make sure to warm-up before engaging in any physical activity.
- Allow your body time to rest between periods of activity to prevent overusing the back and causing a stress fracture.
- Avoid overstretching the back to prevent the condition from occurring.
- If you start noticing changes in your gait, you need to be evaluated to determine what might be going on with your spine.
- Maintain a healthy weight to prevent placing undue stress on the spine.