

Spondylolisthesis

Spondylolisthesis is a type of condition affecting the spine where one of the vertebra ends up slipping backward or forward when compared to the vertebra next to it. Forward slippage of the vertebra is often referred to as anterolisthesis, while backward slippage is known as retrolisthesis. Spondylolisthesis leads to spinal deformity in addition to a narrowing of the spinal canal or compression of the nerve roots that exit the region.

A spondylolisthesis can cause a low grade back ache. However, in many cases they are not painful. Sometimes the patient will report a previous injury to the spine during sport or a hobby.

Spondylolisthesis Anatomy

Vertebrae are the blocks of bone in your spine. They are separated by discs and facet joints. In between the front and back of the vertebra is a bridge known as a pars. The pars can fracture or crack, and this can separate the front and back of the vertebra and the vertebra can then slip forwards (or backwards, occasionally).



MRI scan showing a Grade I spondylolisthesis



MRI scan showing a Grade III spondylolisthesis

Causes of Spondylolisthesis

Spondylolisthesis can occur spontaneously, without reason. Or they can occur from an excessive extension in the spine. This is particularly true in teenage females, especially ones who do trampolining or gymnastics.

Spondylolisthesis is very hard to diagnose without an MRI. If the slippage is particularly large, your therapist may feel a small step in the vertebra, but this method of diagnosis is not reliable and often shows false positives. X-ray can also show it, but an oblique view is best used to see it and these views are less commonly done. However a lateral view should also pick them up. An MRI is the most accurate way to accurately diagnose a spondylolisthesis.

How to Treat Spondylolisthesis:

1. Reduce Extension of the Spine

Short periods of rest or refraining from activities such as over-arching your back, or extension during some sports such as gymnastics. Take some time to allow the injured site to heal and recover from the injury.

2. Physical Therapy

Physical therapy will help to increase movement within the lumbar spine above the site of the spondylolisthesis, but also can address muscle imbalance in the hamstrings, as well as being able to strengthen the core abdominal muscles. When your muscles and bones are strong, they aren't going to get injured as easily.

3. Anti-Inflammatory Medication

By taking an anti-inflammatory medication, you can help to decrease the inflammation and pain in the nerves and muscles. Only short term use is advised.

4. Steroid Injection

Patients who are struggling with numbness, pain and tingling in the legs might find a steroid injection or epidural beneficial.

5. Brace

Patients may use a brace to prevent hyper-extension of the spine.

6. Surgery

For those who don't find improvement from the alternative treatments, surgery might be needed to correct the problem. The type of surgery used depends largely upon the form of spondylolisthesis.

Tips:

- Certain activities like weightlifting, gymnastics, athletics and trampolining can increase the risk of getting this condition.
- Most of those who have the condition will find relief through conservative treatments, without having to worry about undergoing surgery.
- If you fail to find relief from all of the conservative treatment methods, you might be an ideal candidate for surgery to help correct the deformity.
- When lifting, make sure to bend the knees and lift with the knees, not the back. You don't want to place undue strain on your spinal column.
- Many people with this condition will not suffer with pain, and only become aware of the problem following a routine X-ray or scan.