

Overview

There are different types of *spondylolisthesis*. The more common types include:

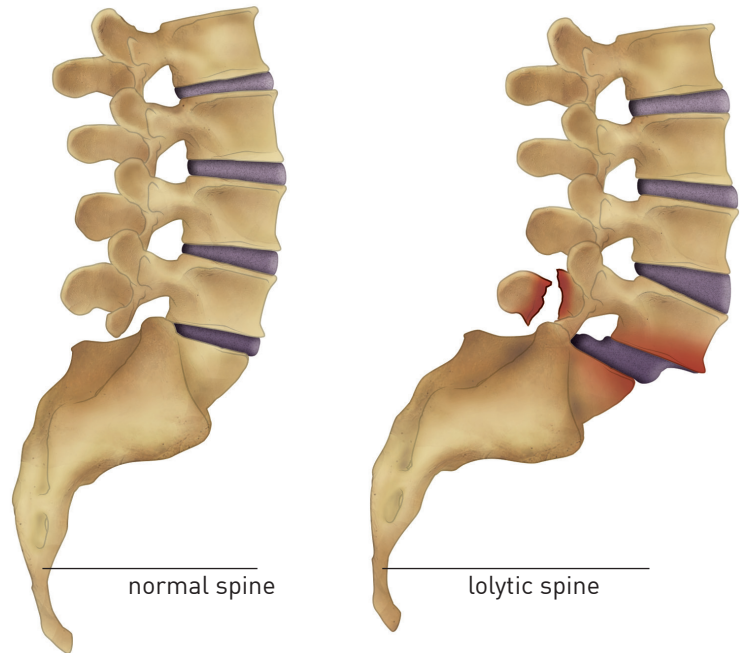
Congenital spondylolisthesis – Congenital means “present at birth.”

Isthmic spondylolisthesis – This type occurs as the result of *spondylolysis*, a condition that leads to small stress fractures (breaks) in the vertebrae. In some cases, the fractures weaken the bone so much that it slips out of place.

Degenerative spondylolisthesis – This is the most common form of the disorder. With aging, the discs (the cushions between the vertebral bones) lose water, becoming less spongy and less able to resist movement by the vertebrae.

The less common forms of *spondylolisthesis* include:

Traumatic spondylolisthesis – An injury that leads to a spinal fracture or slippage.



Causes & Symptoms

Many people with spondylolisthesis have no symptoms and don't even know they have the condition. When symptoms do occur, low back pain is the most common. The pain usually spreads across the lower back, and might feel like a muscle strain.

Spondylolisthesis can also cause:

- Muscle spasms in the hamstring muscles at the back of the thighs. Tight hamstrings can cause the person to walk with short strides and with the knees slightly bent.
- Pain that may spread down the leg to the foot.
- Tingling and/or numbness in the foot.

Risk Factors

Some common factors include: a disc disease, degenerative arthritis, advanced aging and prior back pain or surgery.

Diagnosis

An X-ray of the lower back can show a vertebra out of place. A CT or MRI scan, which produce more detailed images, might be needed to more clearly see the bones and nerves involved.



Treatment

Treatment for spondylolisthesis depends on several factors, including the age and overall health of the person, the extent of the slip and severity of the symptoms. Treatment most often is conservative, involving rest, medication and exercise.

Conservative treatment – A patient suffering from spondylolisthesis should take a break from sports and other activities until the pain subsides. A non-steroidal anti-inflammatory drug (NSAID), such as ibuprofen or naproxen, might be recommended to help reduce pain and inflammation (irritation and swelling). Stronger medications might be prescribed if the NSAIDs do not provide relief.

Epidural steroid injections – Medication is injected directly in the space surrounding the spine; this may also help reduce inflammation and ease pain. A brace or back support might be used to help stabilize the lower back and reduce pain.

Physical Therapy – A program of exercise and/or physical therapy will help increase pain-free movement, and improve flexibility and muscle strength. Stabilization exercises are the mainstay of treatment. These exercises strengthen the abdominal and/or back muscles, minimizing bony movement of the spine. Generally, 8 to 12 weeks of aggressive daily treatment with stabilization exercises are needed to achieve clinical improvement.

Other treatment considerations in physical therapy may include relaxing spastic muscles through *trigger point release*, heat, electric stimulation and/or ultrasound. At Rochester Regional Health Physical Therapy and Rehabilitation, our therapists and providers advocate *activity modification* as well as provide patient education to develop exercises and regimens that avoid further irritation of spine.

Surgery – Surgery may be necessary if the vertebra continues to slip or if the pain is not relieved by conservative treatment and begins to interfere with daily activities. Should you require surgical treatment, our providers will discuss this option in detail.

Follow-Up Care & Care Information

Persistent pain associated with spondylolisthesis can lead to reduced mobility and inactivity. Inactivity can, in turn, result in weight gain, loss of bone density and loss of muscle strength and flexibility in other areas of the body. There is also a risk of permanent nerve damage if a slipped vertebra is pressing on a spinal nerve root.

Although spondylolisthesis might not be preventable, there are steps you can take to reduce the risk of slips:

- Keep your back and abdominal muscles strong to help support and stabilize the lower back.
- Choose activities and sports that do not place your lower back at risk for injury. Swimming and biking are possible options.
- Maintain a healthy weight. Excess weight puts added stress on your lower back.
- Eat a well-balanced diet to keep your bones well-nourished and strong.