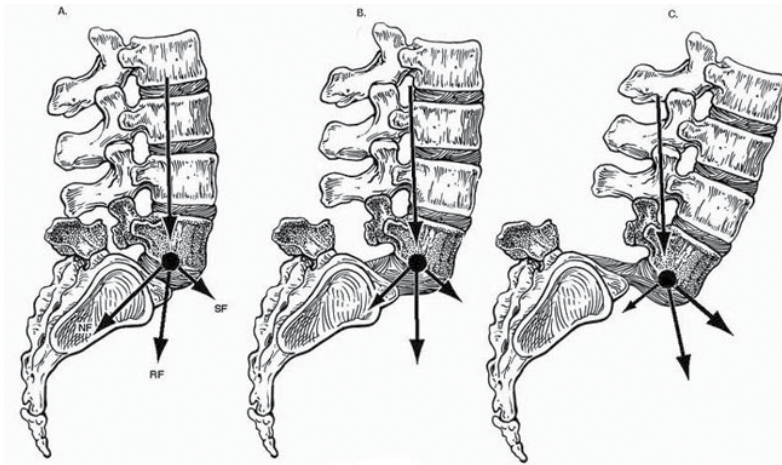


HOW COMMON IS:

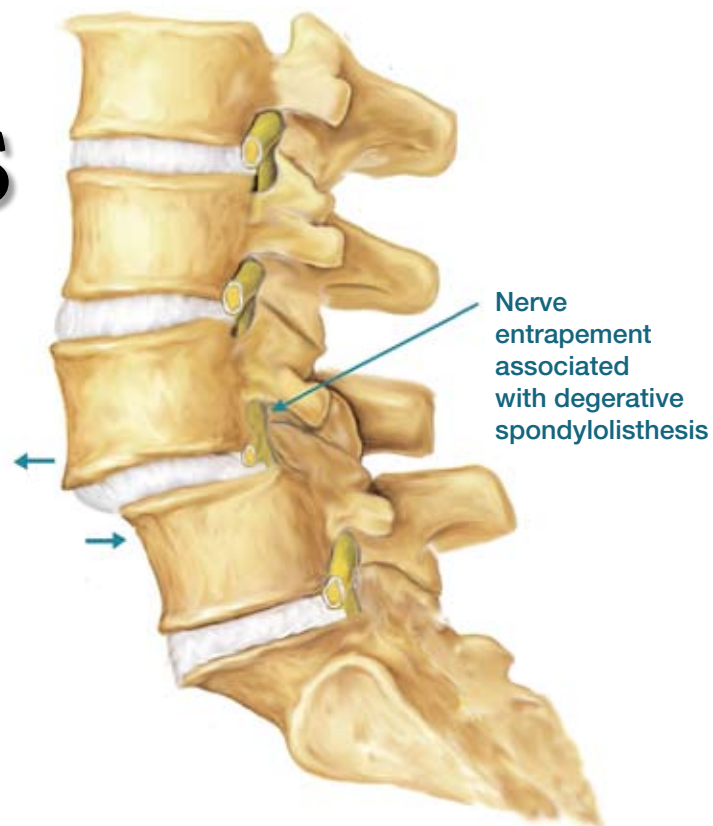
Spondylolisthesis

[spon-dee-low-lis-thee-sis]

~ BY JON K. MILLER, M.D. ~



Progressive slip of isthmic spondylolisthesis



Spondylolisthesis simply refers to a condition in which one vertebra slips, or subluxes forward on the one below it. The condition is relatively common and can occur due to several causes, most commonly related to arthritis, repetitive stress injury or trauma. Spondylolisthesis may occur in any area of the spine, we will confine our discussion to the lumbar spine.

Causes

Degenerative spondylolisthesis is a fairly common condition that primarily occurs in older individuals due to osteo- or wear and tear arthritis. Between each vertebra or back bone, there are two joints, referred to as facet joints. These, with years of use may become arthritic, just like any other joints such as the hip or knee. However, as these joints become more and more arthritic they may also become unstable which may allow one vertebra to begin to progressively slip forward on the one below it. As the joints become more and more arthritic, they may also enlarge or hypertrophy. This, in combination with the subluxation, also causes another common condition called spinal stenosis. Spinal stenosis is a narrowing of the spinal canal where the nerves that give sensation and muscle function to the legs are located. Compression of these nerves commonly causes sciatica, or pain which radiates into the legs and is often worse with walking, as well as weakness of the legs.

Symptoms

The symptoms of spondylolisthesis can be wide ranging from an incidental finding on

x-ray (no symptoms) to severe back and leg pain. Pain is often worse with walking.

When the nerves exiting the spinal canal become pinched by the spondylolisthesis **leg pain and weakness** can result. Common nerve symptoms **may be** similar to symptoms seen with a herniated disc.

Diagnosis

Degenerative spondylolisthesis is usually easily diagnosed with a history and physical examination of the patient, x-rays and usually an MRI scan and/or **myelogram** in which a dye is injected into the spinal canal providing contrast.

Treatment

Treatment of degenerative spondylolisthesis is individualized, depending on many factors including how severe the condition is as it may occur to varying degrees. This may include medication such as anti-inflammatory medication, physical therapy, various types of cortisone injections and surgery. Surgery for this condition commonly involves a decompressive procedure, in which the structures that are causing compression of the nerves are removed, and a fusion of the involved vertebra to prevent further subluxation.

Isthmic Spondylolisthesis

So-called isthmic spondylolisthesis is a rather common condition, reportedly present in approximately 7% of the population. It may be seen in any age group however the original injury is often felt to have occurred in childhood or adolescence. In this disorder a stress fracture is pres-

ent in a part of the vertebra referred to as the pars interarticularis that never heals properly. This structure connects the back of the vertebra to the front. The ensuing instability commonly causes wear and tear changes of the intervertebral disk or cushion between the back bones as well as an often progressive slip. This condition may be completely asymptomatic and unknown to the patient, however as with degenerative spondylolisthesis, it may cause back pain in addition to leg pain due to associated spinal stenosis. Diagnosis of isthmic spondylolisthesis is similar to that of degenerative spondylolisthesis.

Asymptomatic isthmic spondylolisthesis may require no treatment other than observation. In some individuals with a relatively high degree of slip, periodic x-rays may be necessary to ensure that the slip is not progressive. If the condition becomes symptomatic, treatment is once again individualized but may include treatments very similar to that of degenerative spondylolisthesis.

Spondylolisthesis due to a specific traumatic event is relatively uncommon but may occur due to relatively severe trauma such as a fall from a height or motor vehicle accident. Treatment depends on the age of the individual, degree of deformity and associated injuries may include bracing and/or surgery.

Prognosis

The prognosis of spondylolisthesis depends on many factors including whether the patient chooses to have treatment. Generally, patients may expect excellent

relief of back and leg pain **with appropriate treatment.**

Atlantic Orthopedics is headquartered in Wilmington and offers the complete range of orthopedic diagnostics and treatments, including sports medicine, spine and back surgery, joint replacement and revision, hand surgery, knee and shoulder surgery, pain medicine, physical therapy and a High Field MRI Imaging Center. There are satellite offices in Porters Neck, Southport, Burgaw and Jacksonville.

Dr. Miller received his MD from the Indiana University School of Medicine. Following his residency at Lutheran Hospital in Ft. Wayne, Indiana, he completed a fellowship in spine surgery at Methodist Hospital of Indiana located in Indianapolis. For further information, call Dr. Miller or any of Atlantic Orthopedics' other physicians at (910) 795-1734, or visit www.atlanticorthopedics.com.

