

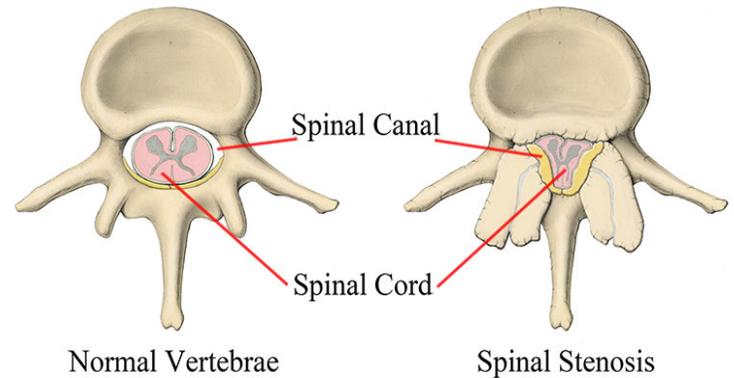
### Lumbar Spinal Stenosis and Neurogenic Claudication



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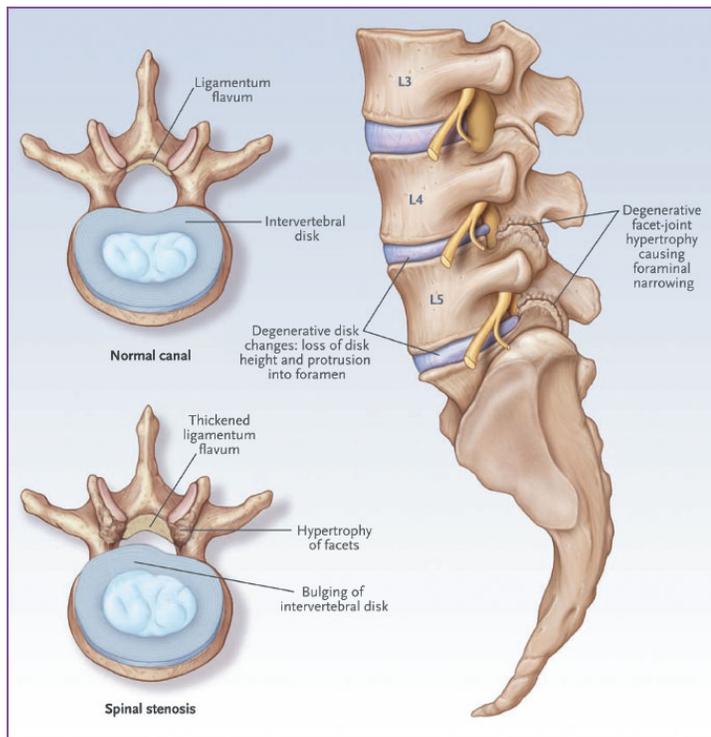
**Like other joints of the body**, the spine undergoes a degenerative process that is a normal part of aging. It is this process (degenerative disc disease (DDD) and spine osteoarthritis (OA)) that is the most common cause of lumbar spinal stenosis and neurogenic claudication. Other causes can include tumours, infections and metabolic bone disorders. However, these are rare. As the spine degenerates it can cause narrowing of either the spinal canal or one or more of the vertebral foramina. With substantial narrowing, compression of the spinal nerves within these two regions can occur causing painful symptoms that

can include low back pain, buttock pain, leg pain and/or numbness (neurogenic claudication) that is made worse with walking/standing and is relieved by flexion/sitting. Additionally, positions that cause extension of the lumbar spine can exacerbate symptoms. Patients are often unable to walk for long distances and frequently require the support of a walker or shopping cart while walking. These symptoms progress gradually, but commonly worsen with time. This is due to the fact that degenerative arthritis is a progressive condition that gradually becomes more severe with time. If left untreated, neurogenic claudication from lumbar spinal stenosis can lead to increasing functional limitations – progressive weakness and loss of leg function with walking and standing. The key to identifying neurogenic claudication in your office is a precise history.



Normal Vertebrae

Spinal Stenosis



When assessing your patient, important questions to ask include: Where is your pain the worst – Back dominant or leg dominant? Is your pain constant or intermittent? Has there been a change in your bowel/bladder function since the onset of your symptoms? What aggravates or relieves your symptoms – Standing/walking or sitting/flexion? Additionally, ensure that you screen for other disorders that can mimic neurogenic claudication (i.e. diabetic neuropathy, vascular claudication, hip and knee OA). Your physical examination should be designed to support the patient's history and contains elements that either verify or refute the patient's story. Patients suffering from neurogenic claudication will have intermittent leg dominant pain that is worse with standing/walking and better with sitting/flexion. Their nerve root irritation tests will be negative but they may have a possible conduction loss (decreased reflexes, motor strength weakness or loss of sensation). The treatment of neurogenic claudication from lumbar spinal stenosis begins with conservative (non-operative) management. Many patients can manage their symptoms with a flexion-based self-management program. Additionally, conservative

management can include pain medication and/or cortisone (steroid) injections in the lumbar spine. Surgery may be indicated for those who do not improve and find their condition functionally limiting.