

Treatment Outcomes: Surgical vs. Non-Surgical

Spinal manipulation is safe and recommended for acute low back pain by the US Dept of Health and Human Services. (15) It is recommended by the American Pain Society and American College of Physicians as primary care of low back pain. (16)



Five to 10 sessions of spinal manipulation over 2 to 4 weeks gives equivalent or superior improvement in pain and function compared with other options. (17) For sciatica, treatment outcomes are equal with surgery or conservative care. (18) Energetic, aggressive, non-surgical care of spinal stenosis is reasonable and recommended. (19, 20, 21) At 8 to 10 years post care, LSS patients improved about equally: 53% surgically vs 50% non-surgically. (22) Quality of life for surgically treated lumbar spinal stenosis patients is poor with satisfaction at 1-2 out of 10 for 71% of them. (23) Just 49.5% of patients who underwent surgery for their lumbar spine stenosis improved. (24) Chiropractic, non-surgical treatment offers opportunity for relief with an understanding of the condition to control its effect on a LSS patient's quality of life.

Treatment Outcomes: Cox® Technic

Cox® Technic is gentle, safe, doctor-controlled spinal manipulation for spinal stenosis. Manipulation therapies such as flexion distraction (*aka Cox® Technic*) are considered conservative treatment for lumbar spinal stenosis (LSS). The aim of care is the reduction of spinal stenosis by stretching the spinal ligaments known as the ligamentum flavum, reducing pressure within the intervertebral disc, and enlarging the nerve opening size. This aids in the healing of damaged nerves and function of related structures. (25) Flexion-distraction (F/D) combines loads of traction and flexion to a *specific* spinal segment and increases the intervertebral foramen by as much as 28% in area and drops intradiscal pressures to as low as -192 mmHG. (26) F/D manipulation results in increased motion of the metabolites in the discs and reduced internal pressure on the discs. (27) Chronic back pain patients noted pain relief with F/D spinal manipulation with 4 weeks of care. (28) It is reported to give 100% relief to a lady with low back pain and leg pain due to synovial cyst-induced spinal stenosis in 15 visits. (29) Patients reported improvement for cervical radiculopathy and stenosis with a 41.4 point drop in pain with Cox® Technic. (30) Cervical spinal stenosis with weakness and pain improved, dropping pain from a 7 to a 2 on a 10-point scale (*10 being the worst pain*). (31) A patient with severe central canal stenosis affecting several levels of the spine found relief of pain with F/D. (32) 12 treatments with F/D relieved pain for a 76-year-old man with MRI confirmed LSS in 3 weeks. (33) Lumbar spinal stenosis patients treated with F/D improved by 76%, and their disability improved by 73%. (34)

A Conservative Care
Approach Combining
Nutrition and Chiropractic
Cox® Technic
Spinal Manipulation
Treatment

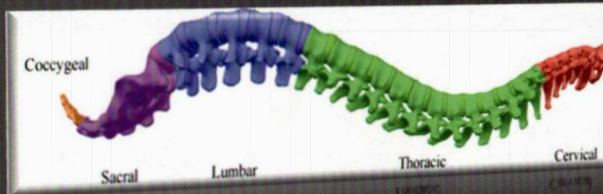
SPINAL STENOSIS



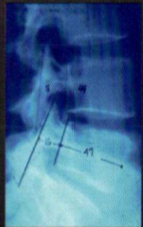
What Is Spinal Stenosis?

Stenosis is the narrowing of any natural body orifice.

Spinal stenosis is the narrowing of the spinal canal area that houses the spinal cord and spinal nerves. It can occur in the cervical, thoracic or lumbar spine.



Such narrowing may be caused by disc degeneration (images below), disc herniation, facet syndrome, spinal cyst, thickening of the ligamentum flavum, etc.



normal



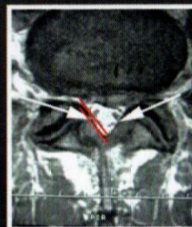
stenotic

SPINAL CANAL AREA ON X-RAY

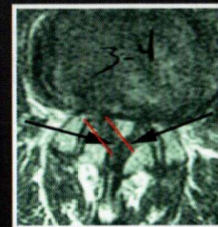
Causes of Spinal Stenosis

Spinal stenosis may be related to any number of causes, alone or in combination with other issues.

Disc degeneration which starts in the second decade of life is a cellular level response to the stresses to spinal structure due to aging and other environmental factors like mechanical stress from a disc herniation, facet syndrome in which disc thinning results in facet overlapping irritation, spinal cysts which invade the spinal canal and press on nerves. (6, 7) One author writes that it is the ligamentum flavum bulging (thickening) *not the disc* that is 50% to 85% of the cause of spinal stenosis. (35)



normal

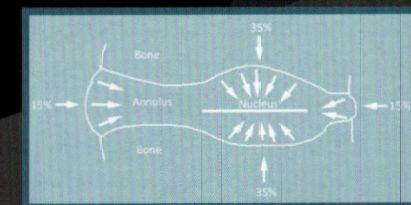


thickening

LIGAMENTUM FLAVUM ON MRI

Treatment Options

Exercise for the multifidus muscles is helpful as they degenerate, too. (8) Nutrition is important as inadequate concentrations of the disc nutrients result in cell death and disc degeneration. (9) *Chondroitin sulfate* is one nutrient shown to relieve pain and improve spinal function for 73% of patients in one study. (10) Long term use of chondroitin sulfate may be a disease modifying agent for knee arthritis patients whose cartilage in the knee is similar to that in the disc. (11) Chondroitin sulfate from perna has genuine anti-inflammatory effects. It reduced inflammation (by 77%) better than NSAIDs (42%). It rebuilds bone, cartilage, tendons, ligament and disc. (12) Combining nutrition with spinal manipulation is beneficial as *distraction reverses disc degeneration*. One report showed that 18 days of compression caused degeneration, and 28 days of distraction regenerated the disc. Distraction rehydrates the disc, stimulates the matrix, increases the number of cells, and improves nutrition through the endplates through which the disc gets 70% of its nutrition. (13, 14)



Combining nutrition and spinal manipulation is a clinically beneficial care pathway to spinal stenosis relief.

Effects of Spinal Stenosis

Spinal stenosis shows itself in a variety of ways. Balance is affected. (1) Lumbar spinal stenosis (LSS) patients have a higher risk of falling as a result of the onset of neurogenic intermittent claudication (2) Muscle strength during the straight leg raising test and walking capacity are related in patients with LSS. (3). 10 to 14% of stenotic patients develop bladder and bowel symptoms. (4). Pain may extend only to the thigh or buttock. Pain relief when sitting is common. Flexion opens the spinal canal and relieves pain (*ie, leaning over a shopping cart is relieving*). Extension of the spine is painful. (5)