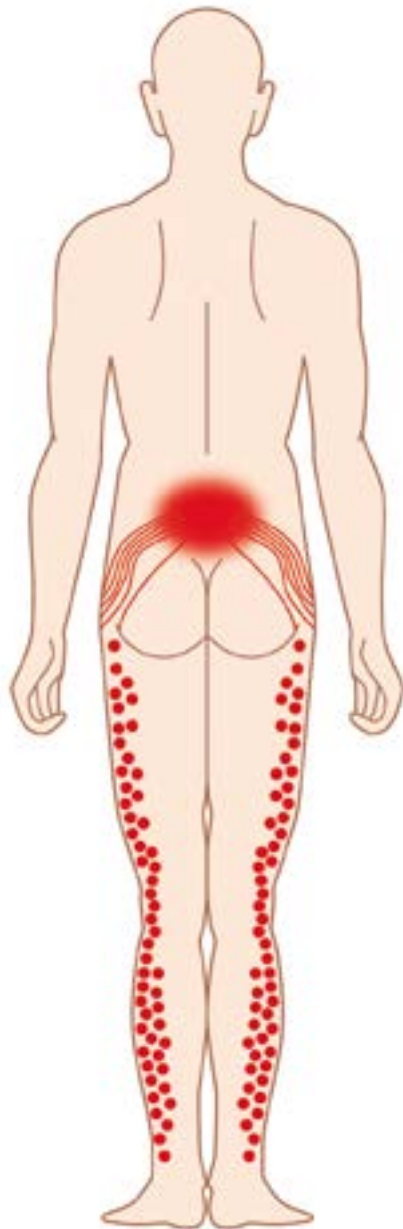


Spinal stenosis

Development [1, 2]

A



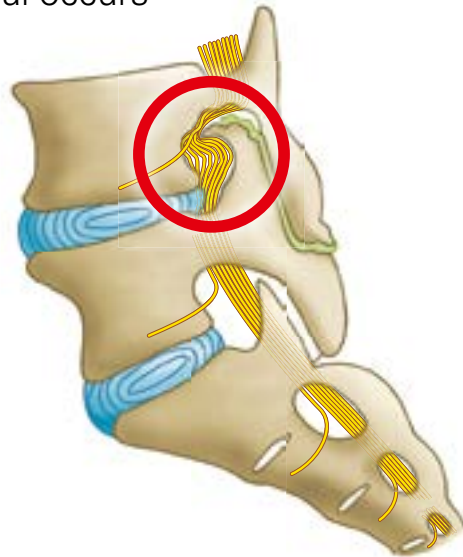
Facet syndrome



Outgrowths develop on the vertebral bodies (spondylophytes)



Together with bulging of the intervertebral discs, narrowing of the spinal canal occurs



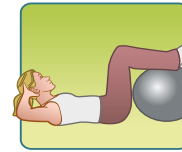
Pain radiates to both legs along the nerve pathway.



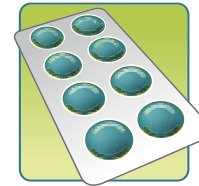
Sensation of weakness in the legs, restriction of movement, cramping pains in the legs, shortened walking distance.

Conservative treatment [3]

B



Physiotherapy



Painkillers



Strain-relieving brace, which reduces the forward-leaning curvature of the lumbar spine (if appropriate in combination with TENS)



Local injection close to the narrowing (peridural space)

Surgical procedures [4]

C



Microsurgical decompression of the nerve canal

Spinal stenosis

A Development [1, 2]

In advanced facet syndrome bony spurs (spondylophytes) form on the vertebral bodies. In addition, the intervertebral discs lose stability during the normal ageing process, with the result that bulging (protrusion) of the discs may occur.

This combination can lead to narrowing of the spinal canal (spinal stenosis). There are also people with a congenitally narrow spinal canal. A narrow spinal canal is generally associated with narrowing of the foramina (nerve exit holes).

The constant pressure on the spinal nerves leads to irritation and pain, which radiates along the nerve pathway.

This is a mixed pain (nociceptive and neuropathic), which arises firstly as a result of osteoarthritic damage to the vertebral joints, and secondly by irritation / injury of the nerve root.

Other symptoms of spinal stenosis are a sensation of weakness in the legs and spinal (neurogenic) claudication (cramping pains at the front and rear of the legs after walking for a short distance). The pain improves on sitting down or bending the upper body forwards.

B Conservative treatment [3, 4]

Counselling, physiotherapy, pain-relieving and/or anti-inflammatory drugs, delordosing brace/corset – if appropriate with TENS function (TENS belt).

Targeted injections to reduce swelling and relieve pain (mostly using cortisone) close to the spinal cord or nerve roots can also be effective (epidural and episacral injections).

C Surgical procedures [4, 5]

In **microsurgical decompression** of the nerve canal the tissue that narrows the spinal canal and compresses the nerves is removed under microscopic control.

Because of frequently complicated and diverse causes of pain in spinal stenosis, the benefits of surgical treatment should always be considered carefully.

[1] Alvarez JA, Hardy RH. Am Fam Physician (1998) 57(8): 1825- 1834.

[2] Szpalski M, Gunzburg R. Lumbar spinal stenosis in the elderly: an overview. In: Aebi M, Gunzburg R, Szpalski M (Eds). The Aging Spine. Berlin Heidelberg: Springer-Verlag, 2005. ISBN 3-540-24408-5.

[3] Patel N. J Neurol Neurosurg Psychiatry (2002) 73(Suppl 1): i42- i48.

[4] North American Spine Society Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care. Diagnosis and Treatment of Degenerative Lumbar Spinal Stenosis. Burr Ridge, IL: North American Spine Society, 2011. Available at: <http://www.spine.org/Documents/LumbarStenosis11.pdf> Accessed March 2013.

[4] Postacchini F. Spine (1999) 24(10): 1043- 1047.