

Lumbar Micro-Laminectomy (Open Decompression)

A **lumbar laminectomy** (also known as open decompression) is typically performed to alleviate pain caused by neural impingement that can result from **lumbar spinal stenosis**. The **laminectomy** is designed to remove a small portion of the bone over the nerve root and/or disc material from under the nerve root to give the nerve root more space and a better healing environment.

Spinal stenosis is a condition that primarily afflicts elderly patients, and is caused by degenerative changes that result in enlargement of the facet joints. The enlarged joints then place pressure on the nerves, and this pressure may be effectively relieved with a lumbar laminectomy

Laminectomy surgical procedure

The lumbar laminectomy (open decompression) differs from a **microdiscectomy** in that the incision is longer and there is more muscle stripping.

- First, the back is approached through a two-inch to five-inch long incision in the midline of the back and the left and right back muscles (erector spinae) are dissected off the lamina on both sides and at multiple levels.
- After the spine is approached, the lamina is removed (laminectomy) which allows visualization of the nerve roots.
- The facet joints, which are directly over the nerve roots, may then be undercut (trimmed) to give the nerve roots more room.

Post-operatively, patients are in the hospital for one to three days, and the individual patient's mobilization (return to normal activity) is largely dependent on his/her pre-operative condition and age. Directly following a lumbar laminectomy for spinal stenosis, patients are encouraged to walk. However, it is recommended that patients avoid excessive bending, lifting or twisting for six weeks in order to avoid pulling on the suture line before it heals.

The success rate of a **lumbar laminectomy surgery** to alleviate pain from **spinal stenosis** is generally favorable. Following surgery, **approximately 70% to 80% of patients will have significant improvement** in their function (ability to perform normal daily activities) and markedly reduced level of pain and discomfort associated with spinal stenosis. The **laminectomy** surgical results are particularly effective for **leg pain (sciatica)** caused by spinal stenosis, which can be severe. Unfortunately laminectomy surgery is not nearly as reliable for relief of lower back pain. This is because lumbar spinal stenosis is often created by the facet joints becoming arthritic, and much of the **low back pain** is from the **arthritis**.

Although removing the lamina and part of the facet joint can create more room for the nerve roots it does not eliminate the arthritis. Unfortunately, the symptoms may recur after several years as the degenerative process that originally produced the spinal stenosis continues. In certain instances the success rate of a decompression for spinal stenosis can be enhanced by also fusing a joint. Fusing the joint prevents the spinal stenosis from recurring and can help eliminate pain from an unstable segment.

Spinal fusion surgery is especially useful if there is a **degenerative spondylolisthesis** associated with the stenosis. Generally speaking, if there is multi-level stenosis from a congenitally shallow canal a fusion is not necessary; however, if the stenosis is at one level from an unstable joint (e.g. degenerative spondylolisthesis), then a decompression surgery with a fusion is a more reliable procedure.