

Physical therapy as good as surgery and less risky for one type of lower back pain

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Posted By [Howard LeWine, M.D.](#) On April 9, 2015 @ 2:30 pm In [Back Pain, Pain Management](#)

One type of lower back pain, called lumbar spinal stenosis, is sometimes treated with surgery. But physical therapy works just as well, and comes with fewer unwanted complications — some of them life-threatening — than surgery, according to a study published recently in *Annals of Internal Medicine*.

Stenosis means narrowing. In lumbar spinal stenosis, the space inside the lowest part of the spinal canal has narrowed. This puts pressure on the spinal cord and the nerves extending from the lumbar vertebrae, the five bones between the rib cage and the pelvis that make up the lower part of the spine.

Spinal stenosis usually results from degeneration of discs, ligaments, or any of the joints between the interlocking vertebrae that form the spine (called facet joints). This can cause a painful and potentially disabling narrowing of the spinal canal.

Typical symptoms of spinal stenosis are:

- pain in the groin, buttocks, and upper thigh that does not move down the leg (like the pain of sciatica)
- pain with standing or walking that gets better if you sit or squat
- pain that feels worse when you lean back and becomes less intense if you lean forward.

An operation known as decompression or laminectomy is sometimes done to ease the pain of lumbar spinal stenosis. It removes structures that are pressing on the nerves and contributing to symptoms. But physical therapy can also help ease this type of lower back pain.

To compare these two treatments, researchers recruited 169 Pittsburgh-area men and women with the lower back pain condition lumbar spinal stenosis. All agreed to have surgery, and understood that half would get surgery right away, while half would initially participate in a specifically designed physical therapy program.

Participants in both groups saw benefits as early as 10 weeks after surgery or beginning physical therapy. Their lower back pain continued to decline over four months, while their physical function continued to improve. Two years later, there was no difference in pain or physical function between the surgery and physical therapy groups.

Twenty-two participants in the surgery group (25%) experienced surgery-related complications like repeat surgery or a surgery-related infection, while eight of those in the physical therapy group (10%) reported worsening symptoms as a complication.

Weighing lower back pain treatment options

For most people with lumbar spinal stenosis, there are no hard and fast rules for choosing the right treatment, especially when deciding whether to have surgery for lower back pain. The results of this study offer some guidance.

Initially, treatment for lumbar spinal stenosis to relieve lower back pain includes what doctors call conservative measures. These include pain relievers, anti-inflammatory medicines, and sometimes corticosteroid spinal injections. If symptoms don't improve, surgery is often the next step. That makes sense based on the results of earlier studies.

The results of the *Annals* study suggest that people with lumbar spinal stenosis should first try a well-designed physical therapy program, says Dr. Jeffrey N. Katz, professor of medicine at Harvard Medical School, [in an editorial commenting on the study results](#). If physical therapy doesn't work as well as expected to relieve lower back pain, the decision of when to have surgery should be driven by the person's preferences, says Dr. Katz, who is also the faculty editor of *Back Pain: Finding solutions for your aching back*, a Special Health Report from Harvard Health Publications.

Of course, immediate surgery may be needed if there is so much pressure on the nerves that

- muscles around the pelvis or upper legs become weak
- it becomes difficult to control bladder or bowel function
- pain can't be controlled with strong medicine.

When surgery is needed, the operation performed is usually a laminectomy. The surgeon removes the bony plate (lamina) on the back of the vertebra where the stenosis is located. This opens up more space for the spinal nerves. Laminectomy can be performed through a tiny incision and guided by video from a miniature camera.

Sometimes there is so much narrowing that a simple laminectomy won't do the job. In such cases, a laminectomy with spinal fusion may be needed. In addition to removing one or more bony plates, the surgeon removes discs and other tissues, then stabilizes the spine with cement or hardware.

Laminectomy alone is just as effective as spinal fusion, and so is the preferred option when possible to help relieve lower back pain.

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