

## Implanted Medical Device Relieves The Pain Of Spinal Stenosis

Yale University



Over 500,000 older Americans suffer from lumbar spinal stenosis. Progressive degeneration of the skeletal structure in the lumbar area (lower back) with aging can create a narrowing of the spinal canal, or spinal stenosis. This condition compresses nerve roots in the spine, resulting in chronic lower back pain and leg pain. Standard surgical treatment involves fusing the troublesome vertebrae together; although this does provide pain relief, it also greatly restricts motion.

After 20 years of research, Manohar Panjabi, Ph.D., a professor at Yale University Medical School in New Haven, Conn., perfected a surgically implanted device that stabilizes the weakened area of the spine, relieving pressure on the nerves and also preserving motion and flexibility.

“ This safer and lower-cost alternative to spinal fusion decreases the specific movement in the spine that causes pain, while still allowing bending and twisting motions.

Called Stabilimax NZ<sup>®</sup>, this spine stabilization technology uses an innovative dual-spring mechanism that provides maximum stabilization to the spine, which decreases the motion that causes nerve compression and pain. Components of the device are made from non-ferromagnetic cobalt chromium, Elgiloy, and titanium alloy. Implanting Stabilimax NZ is a minimally invasive surgical procedure that requires a shorter hospital stay than spinal fusion.

Panjabi founded Applied Spine Technologies to further develop and commercialize the Stabilimax NZ<sup>®</sup> system for treating chronic low back pain. Controlled clinical trials are underway in Europe and the United States. Once approved, Stabilimax NZ is expected to become the treatment of choice for lumbar spinal stenosis.

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