

# Minimally invasive spinal fusion: Less pain, faster recovery, smaller scar

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A minimally invasive spinal fusion back surgery results in less blood loss, less postoperative pain, smaller incisions, a shorter hospital stay and faster recovery and return to work.

Rather than cutting through paraspinal (back) muscles, the surgeon spreads and dilates the muscles to obtain access to the lumbar (lower back) spine. One such operation is called a minimally invasive transforaminal lumbar interbody fusion (MIS TLIF).

It's a complex procedure with a steep learning curve, said Loyola University Medical Center [spine surgeon](#) Beejal Amin, MD, who has given talks about the procedure around the country. Dr. Amin is first author of an abstract and surgical video about the procedure in *Neurosurgical Focus*, a publication of the American Association of Neurosurgeons.

Dr. Amin learned the procedure while completing a fellowship in minimally invasive and complex [spine surgery](#) at the University of California at San Francisco Medical Center.

Patient William Hoecker is among Dr. Amin's patients who have greatly benefited from the procedure. Mr. Hoecker suffered debilitating leg pain and numbness due to degenerative spondylolisthesis and [spinal stenosis](#). One vertebra had slipped forward over the vertebra below it, pinching the nerve root and causing pain in the left leg. For Mr. Hoecker, walking just 25 feet was so painful he would have to sit or lie down. He was unable to drive for more than 20 minutes. "I was stuck in my house," he said.

Dr. Amin fused the L4 and L5 vertebrae in Mr. Hoecker's lower back. First, he decompressed the spinal nerve roots. Next, he removed the degenerated disc between the two vertebrae. Then an implant filled with [bone graft](#) was placed in the empty disc space between the vertebrae. Dr. Amin

implanted rods and screws to hold the vertebrae together. As the bone graft healed, it fused the two vertebrae together, resulting in a single bone.

The surgery dramatically improved Mr. Hoecker's quality of life. He now can walk or drive without limitations. Indeed, he's planning a road trip to Disneyworld, and is confident he will be able to keep up with his grandchildren.

Provided by Loyola University Health System

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