

# Preparing for Your Spine Surgery

## Transforaminal Lumbar Interbody Fusion (TLIF)

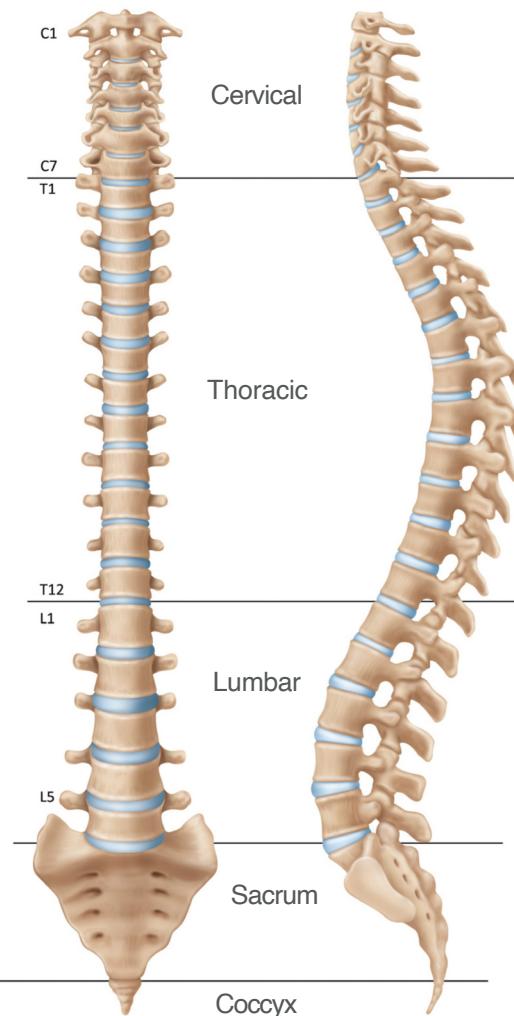
### Transforaminal Lumbar Interbody Fusion

Dr. Desai has recommended spine surgery to treat your condition. This information will help you understand and prepare for your surgery. Your care provider can show you where in your spine your surgery will occur.

#### The spine

The spine consists of 33 connected bones called vertebrae (Figure 1). Between each vertebra lies a disk that serves as a cushion.

Figure 1. The spine



## Lumbar spine

The lumbar spine is made up of 5 vertebrae in the lower part of your back. The main function of the lumbar spine is to bear most of the body's weight. For this reason, the vertebrae in the lumbar spine are the largest.

## Spinal fusion

A spinal fusion is a type of surgery where 2 or more vertebrae are joined together. A spinal fusion is needed to repair certain parts of the spine. The damaged disk may be removed and replaced with a bone graft or intervertebral device. The segment is secured with screws and rods holding the vertebrae together. As the segment heals, the vertebrae fuse and grow together into 1 bone. This makes the spine more stable.

Your specific type of spinal fusion is called a transforaminal lumbar interbody fusion (TLIF).

## TLIF

TLIF is a type of spinal fusion surgery. TLIF fuses the front (anterior) and back (posterior) columns of the lower back (lumbar spine) through a single incision in the back. The front portion of the spine is stabilized by a bone graft and spacer between the vertebrae (interbody). The back portion of the spine is locked in place with screws, rods and a bone graft. Transforaminal means "through or into the foramen." The foramen is an open space in the vertebra that acts as a passageway for the nerve roots. This is also the area where the intervertebral device will be passed into the disk space.

In surgery, you will be placed on your stomach. Your surgeon will make an incision on your back to access your spine (Figure 2). In the

TLIF procedure, the disk material is removed through one side of the vertebra (Figure 3). A bone graft will be placed in that space (interbody). The bone graft is also called a cage or spacer (Figure 4). The bone graft will be secured with screws and a rod that will hold the vertebrae together (Figures 5 and 6). Two screws will be placed in each vertebra being fused, one on each side (Figure 7). At the end of the surgery, the surgeon will close the incision. As the segment heals, the vertebrae fuse and grow together into 1 bone.

Figure 2. Crosssection of the spine

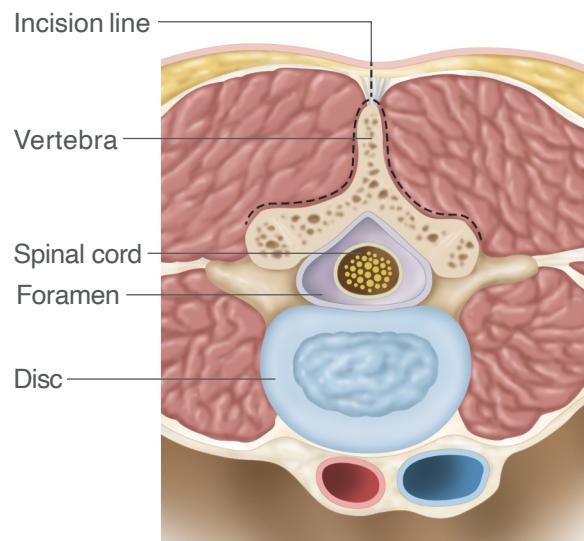


Figure 3. Removal of disk material

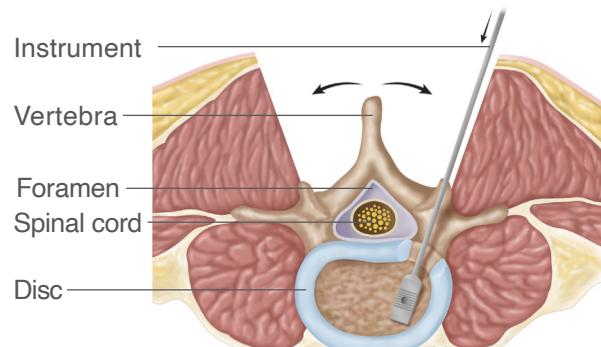


Figure 4. Cage or spacer placement

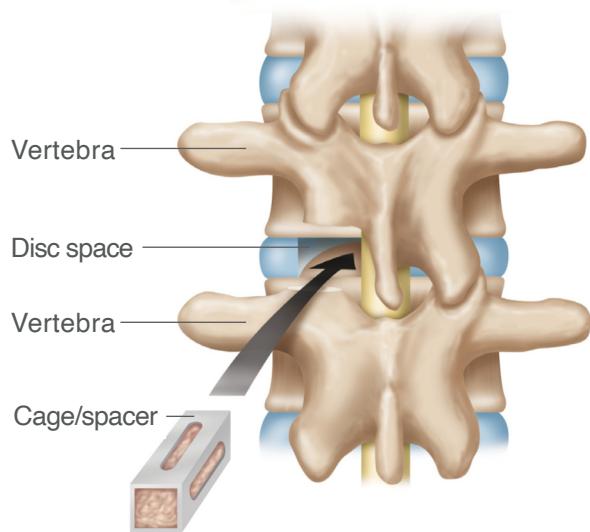


Figure 5. Vertebra fixed with screws

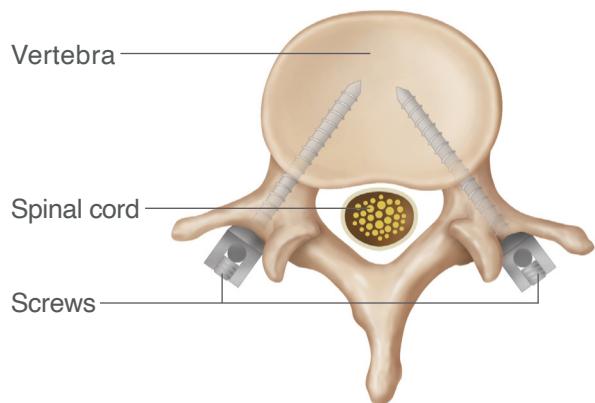


Figure 6. Vertebrae and bone graft (side view)

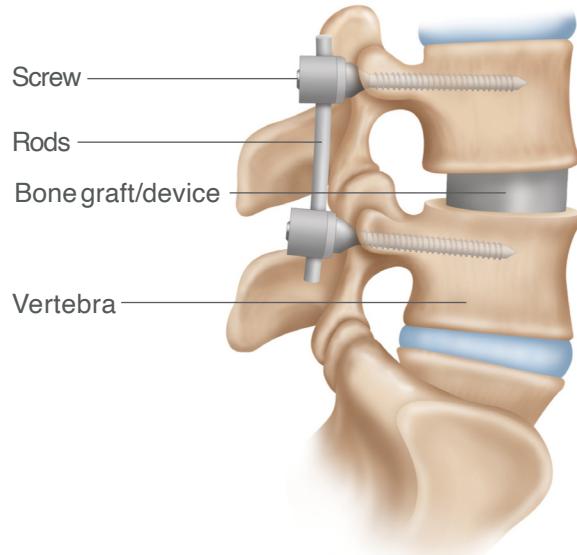
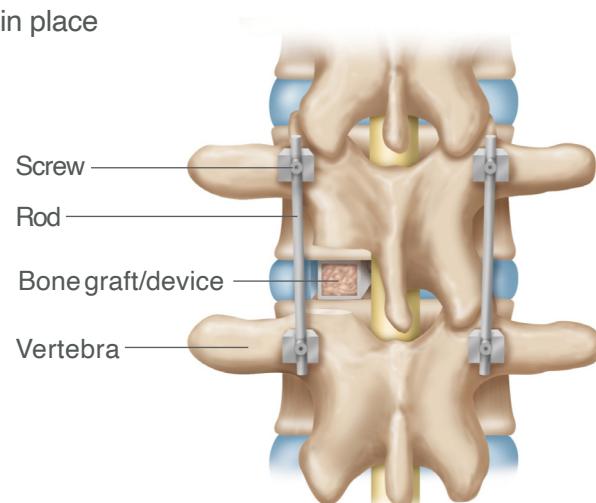


Figure 7. Rods and screws hold vertebrae in place



## X-ray images of TLIF



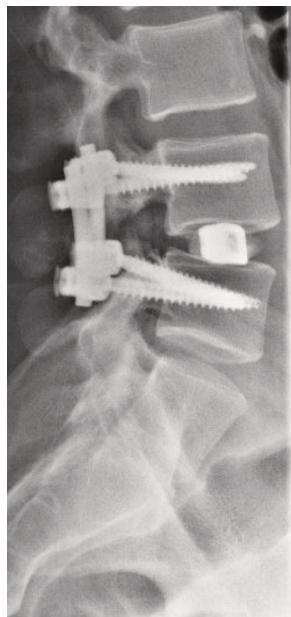
Pre Op



Post Op



Pre Op



Post Op

## Meet Your Surgeon



Dr. Parth N. Desai, M.D., is a fellowship-trained orthopedic spine surgeon who provides comprehensive spine care to patients in the Conyers and Covington area. Though originally from Georgia, Dr. Desai completed his spine training at Northwestern Memorial Hospital in Chicago, IL. He completed his undergraduate at the University of Georgia and medical school at Mercer University. Dr. Desai specializes in the full spectrum of spinal conditions involving the neck and back, including herniated discs, spinal stenosis, degenerative disc disease, spinal instability, adult and pediatric spinal deformity, and trauma. Dr. Desai uses a holistic approach to the treatment of neck and back conditions, and considers surgery to be a last resort option. Dr. Desai has expertise in minimally invasive spine surgery, spinal deformity correction, and in the treatment of failed neck and back surgery.

