WAKE ORTHOPAEDICS
Back & Spine Center

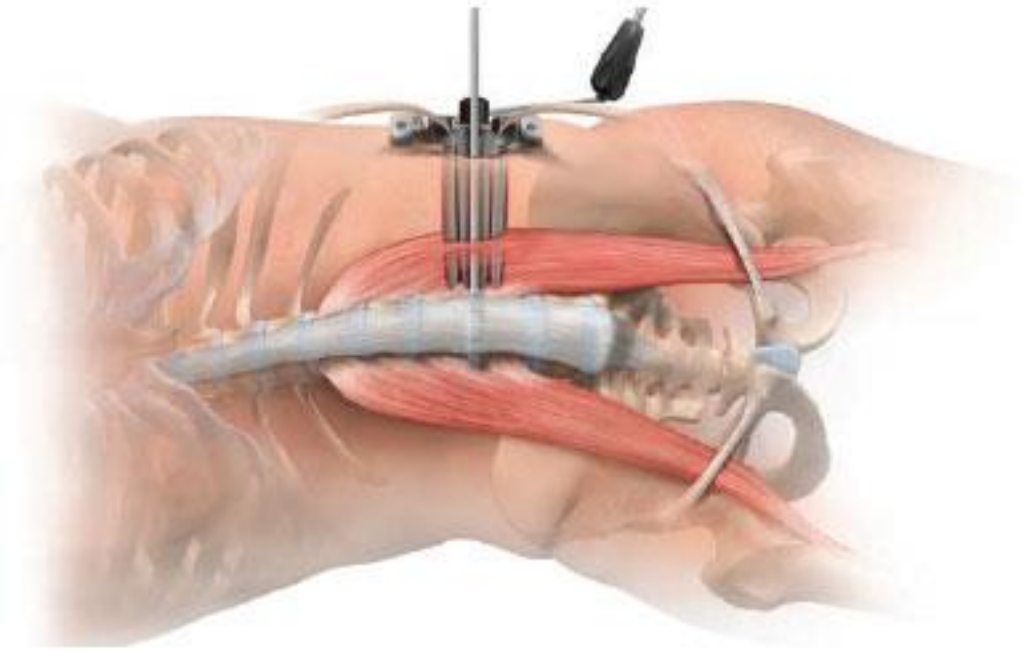
Provider: Conor Regan, MD

Lateral Lumbar Interbody Fusion

In the last 10 years, there has been an explosion of options for performing lumbar fusions. In a fusion, two or more of the vertebral bones are joined together and over time grow into one bone. In a lateral interbody fusion, I insert a plastic cage filled with bone graft from the side of the spine into the disc space. This allows the disc height to be improved back to normal and improves pinching on the nerves, especially in the neural foramen where the nerves exit the spinal canal. It is a powerful technique to improve fusion rates (studies show successful fusion rates over 95%) and to correct deformities.

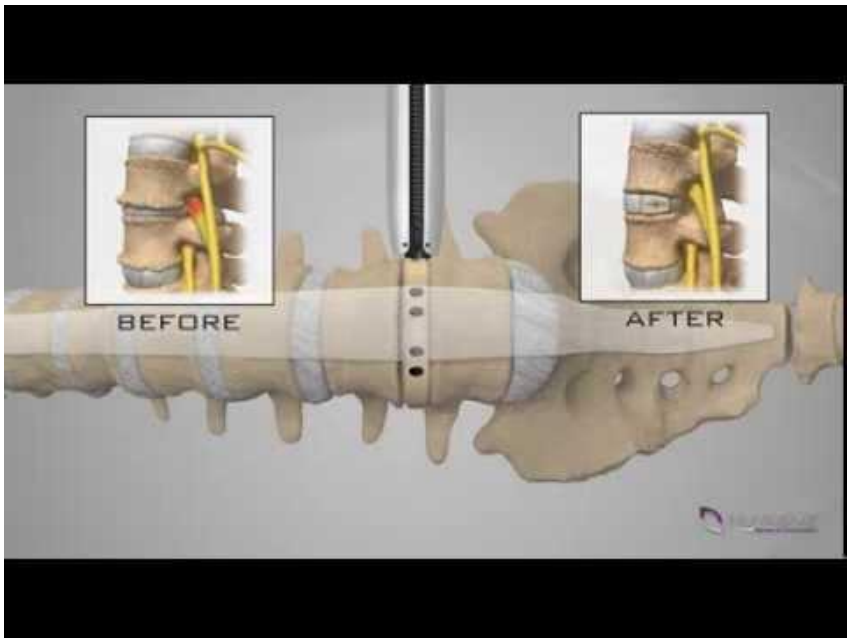
I especially use this technique for the treatment of scoliosis in adults and in patients with adjacent level disease (nerve pinching above or below an old fusion). The correction of scoliosis with the lateral cages is very impressive and I use it adjacent to old fusions to improve the fusion rate.

The technique is minimally invasive as the cage is inserted through a small incision (2-3") on the flank.



The psoas muscle is dilated without cutting it to allow me to look at the disc and remove the central part of the disc to place the cage. There is a bundle of nerves inside the psoas muscle. There fortunately is a probe on the retractor that tells me where the nerves are so that I can avoid them during the procedure. After the disc is removed, I put the cage filled

with bone graft into place. Most patients will need screws and rods placed through one or two incisions in the back which may happen either during the same surgery or 1 to 2 days after the lateral cages are placed.



The benefits of this approach are its minimally invasive nature as well as the high fusion rates as above. There are some risks to it though. First and foremost, the bundle of nerves in the psoas muscle can be damaged or stretched during the surgery. Most patients have temporary numbness in the thigh on the operated side which lasts for up to six (6) weeks. Most patients will have some mild weakness flexing the hip on that side which can last for up to six (6) weeks as well.

The other potential risks are infection (which is rare), rare instances of damage to large blood vessels around the spine, and fractures of the vertebral bones during cage insertion.

The incisions are sewn together with dissolving suture and closed with skin glue (Dermabond). You are allowed to shower anytime you want after surgery as the skin glue is waterproof. After surgery, I usually don't restrict patients in terms of activity other than no lifting more than about 20 to 25lbs for six (6) weeks. You are allowed and encouraged to walk as much as possible for exercise. In my experience, about 70-80% of patients do not need formal physical therapy (PT) and I hold off until three (3) months as studies have shown that later PT is better than early for long-term outcomes.

I perform the surgery mainly for improved walking and relief of leg pain due to nerve pinching. Although some back pain may improve, that aspect is very unpredictable, and I

can't really promise that back pain will resolve with the surgery. Even though it is minimally invasive, the surgery does hurt a lot and it still takes a solid three (3) months to recover fully.