

Lumbar Disc Replacement

Lumbar disc replacement allows for worn-out or degenerative disc material between the bones in the spine (vertebrae) to be removed and replaced. The degenerative disc is replaced with an “artificial” disc. The goal of this procedure is to relieve low back pain while maintaining more normal motion than is allowed with more traditional procedures, such as spinal fusion.

An *intervertebral disc* sits between each bone in the spine (vertebrae). This disc works as a cushion between the bones. It helps to protect the spine from the daily pull of gravity as well as during strenuous activities that put strong force on the spine, such as bending, lifting, and running.

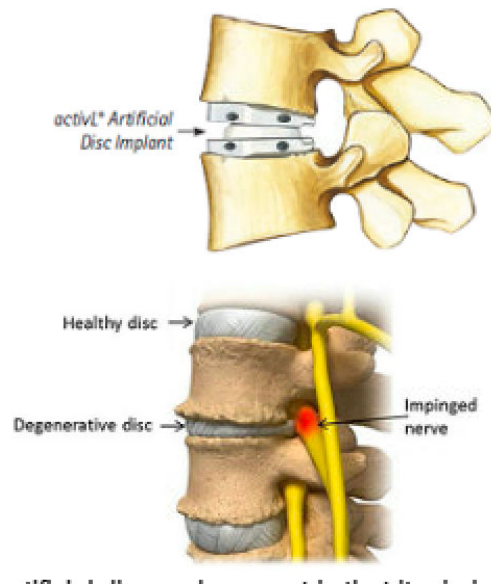
With artificial disc replacement, the procedure is designed to bring about pain relief by removing the painful and degenerative disc and replacing it with a prosthetic implant that preserves motion at the joints. This is more similar in theory to the artificial hip and knee joint surgeries that orthopedic surgeons have been using for more than 40 years to maintain motion and relieve the pain of arthritic joints.

A key benefit of the artificial disc replacement is that it mimics a healthy disc. Natural motion is preserved in the spine where the new disc is implanted, and it helps maintain stability in the spinal joints above and below it.

Am I a candidate for this procedure?

Although it is estimated that 70% to 80% of people will experience low back pain at some point in their lives, most will not need surgery to improve their pain. Surgery is considered when low back pain does not improve with conservative treatment. To determine if you are a good candidate for disk replacement, your surgeon may require a few tests, including:

- Magnetic resonance imaging (MRI) scans
- Discography
- Computed tomography (CT) scans
- X-rays



Artificial disc replacement is not appropriate for all patients with low back pain. In general, good candidates for disk replacement have the following characteristics:

- Back pain caused by one or two problematic intervertebral disks in the lumbar spine
- No significant facet joint disease (arthritis) or bony compression on spinal nerves
- Body size that is not excessively overweight
- No prior major surgery on the lumbar spine
- No deformity of the spine (scoliosis)

How is a Lumbar disc replacement performed?

Lumbar artificial disc implants are designed to be placed into the disc space from the front and center position. Your surgeon will approach your lower back from the front of the body through an incision in your abdomen. With this approach, the organs and blood vessels are held to the side. Usually, a vascular

surgeon assists the spine surgeon to access the spine through the abdomen. This allows your surgeon to access your spine without moving the nerves.

During the procedure, your surgeon will remove your problematic disc. Next the bones of the spine (vertebrae) are spread apart to make more room to see and work inside the disc space. Any remaining disc material is removed. Your surgeon will also remove any pressure against the nerves and shave off any bone spurs (osteophytes). The disc space is then distracted (jacked up) to its normal height. This step helps take pressure off of the nerves. Then, an artificial disc that is the right shape and size for your spine is implanted into the disc space.

Some disks are made of metal, while others are a combination of metal and plastic, similar to joint replacements in the knee and hip. Materials used include medical grade plastic (polyethylene) and medical grade cobalt chromium or titanium alloy. Your surgeon will talk with you about which disk design is best for you.



How long will it take me to recover?

One advantage of a lumbar disc replacement is that the back muscles and nerves are undisturbed, which makes recovery overall easier. Patients typically stay in the hospital for 1-2 days after surgery. You typically will be up and walking the next day after the surgery. You may also be referred for physical therapy after surgery.

Typically, you can expect to be on medical leave for 6-12 weeks; Work closely with your spinal surgeon to determine the appropriate recovery protocol for you, and follow his or her instructions to optimize the healing process. Your return to work will depend on how well your body is healing and the type of work/activity level you plan to return to.

Are there any potential risks or complications?

As with any surgical treatment, spine surgery is not without risk. A variety of complications may occur, either alone or in combination. Potential risks associated with any surgery include anesthesia complications, blood clots, allergic reactions, and adverse effects due to undiagnosed medical problems,

such as silent heart disease. Potential complications associated with spine surgery and the Lumbar Artificial Disc may include:

- Implants bending, breaking, loosening, or moving
- Instruments bending or breaking
- Wound, local, and/or bodily (systemic) infections
- Nerve or spinal cord injury, possibly causing impairment or paralysis
- Numbness or tingling in extremities
- Tear in the protective membrane (dura) covering the spinal cord
- Development or progression of disease at other lumbar levels
- Bleeding or collection of clotted blood (hematoma)
- Blood clots and blood flow restrictions, possibly resulting in stroke
- Tissue swelling
- Reactions to anesthesia
- Changes in mental status
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There is also the risk that this surgical procedure will not be effective, and may not relieve or may cause worsening of preoperative symptoms.

To learn more about the Lumbar Artificial Disc, go online to: <https://www.soactivesofast.com/spine>