

Cervical Disc Replacement



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What is a cervical disc replacement?

Cervical disc replacement, also known as cervical disc arthroplasty, is a procedure performed through the front of your neck to remove a problematic disc in the spine and replace it with an artificial disc made of metal and plastic. There are a number of issues that can be treated with a cervical disc replacement. The most common problems include disc herniations or bone spurs that push on nerves or the spinal cord. When a nerve is pinched this often causes pain, weakness or numbness in one or both of the arms. When the spinal cord is pinched this can cause problems such as difficulty using your hands, worsening balance or other issues with coordination. The cervical disc replacement allows for removal of the disc or bone spurs that are causing the problem and placement of a device that mimics the normal motion of the bones and joints in the neck.

When is this surgery recommended?

When there is a problem of a pinched nerve or compressed spinal cord in the neck due to disc or bone spurs from the front, a surgery through the front of the neck to remove the problematic area is usually a good option. Traditionally the disc that was removed was replaced with a piece of bone or other spacer that promoted the two bones to grow together in a fusion. This is known as an anterior cervical discectomy and fusion (ACDF). A disc replacement allows for the removal of the same problematic areas but, in contrast to a fusion surgery, allows for insertion of a device that maintains motion in the spine. This prevents abnormal motion of the discs above or below the disc replacement and decreases the likelihood that those discs will develop problems due to that abnormal stress.

While disc replacements are being performed in more and more cases of cervical disc degeneration, there are cases when a disc replacement should not be recommended. For example, when there is advanced arthritis in the cervical spine, particularly in the facet joints, and if this causes pain, then a disc replacement will continue to allow painful motion through those joints and a fusion procedure would provide better relief of that pain.

What are the risks of the surgery?

In general, this surgery is considered safe, has extremely high success rates and high patient satisfaction ratings. However, particular risks (each of which is very rare) include nerve irritation or nerve injury, spinal cord injury, spinal fluid leak, fracture of the bone, failure of the

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surgery to provide relief of the symptoms, migration or failure of the disc replacement device, infection, and/or difficulty swallowing (known as dysphagia, which is usually temporary). There is a small risk that bone spurs can reform at the level of the disc replacement which can, in rare cases, require another surgery to address.

What is the recovery like?

Each patient's recovery is unique and depends on a number of factors such as age, fitness, medical history, and preoperative pain medication requirement. However, in general, the surgery takes about 90 minutes of surgical time for a one-level procedure. There is minimal blood loss and the risk for infection or wound healing issues is extremely low. You can expect 1 night in the hospital for a one-level disc replacement, however, younger patients, healthier patients, and those who do not take prescription pain medications leading up to the surgery can sometimes discharge the same day after a short observation period. You will be prescribed at least 14 days of prescription pain medications to take at home and are encouraged to take full strength Tylenol (1,000mg in 4 doses daily for most patients) in addition. You do not need to wear a collar after surgery as gentle progression of motion is encouraged. Most patients have some mild difficulty or discomfort with swallowing for a short period after the surgery and you should be mindful to give yourself extra time at meals, chew your food thoroughly, and avoid dry or tough foods.

Most patients feel very good shortly after surgery and symptoms of pain that led to the surgery often improve immediately. This can lead patients to assume that they can return to any activity almost immediately. However, for the first 6 weeks you should avoid high impact activities such as skiing, road biking, or other activities that put you at risk for falling, whiplash or other neck injuries. During this time the bone increases its attachment to the disc replacement.

How should I prepare for my surgery?

The most important thing is to stay active leading up to surgery. Eat a healthy, well-balanced diet, keep up whatever cardiovascular exercise you can such as walking, biking, elliptical etc. You may be instructed to perform some gentle neck manipulation to loosen up the tissues around your trachea and esophagus prior to the surgery to help decrease swallowing difficulties after the surgery. If you take other prescription medications, blood thinner, or supplements you should receive specific instructions on which medications to stop taking and when to stop taking them before your surgery.

Most importantly, as much as your recovery is a physical experience, for many it is also a mental and emotional experience as well. You have to be prepared for some discomfort, for some hard work, and for some mental and emotional toughness as you begin your journey to recovery. It is a process, with highs and lows, excitement and frustration – but ultimately it is about buying into the part you play in your recovery and in you eventually achieving your specific goals for your spine, your health, and your overall well-being.

To find recent scientific manuscripts co-authored by Dr. York regarding cervical disc replacement visit:

<https://pubmed.ncbi.nlm.nih.gov/31261280/>

<https://pubmed.ncbi.nlm.nih.gov/33027091/>

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> [Clin Spine Surg.](#) 2020 Nov;33(9):370-377. doi: 10.1097/BSD.0000000000001091.

Radiographic Evaluation of Cervical Disk Replacement: The Impact of Preoperative Arthrosis and Implant Positioning on Patient-report Outcomes

> [Spine \(Phila Pa 1976\).](#) 2019 Oct 1;44(19):E1151-E1158. doi: 10.1097/BRS.0000000000003077.

Sagittal Reconstruction and Clinical Outcome Using Traditional ACDF, Versus Stand-alone ACDF Versus TDR: A Systematic Review and Quantitative Analysis