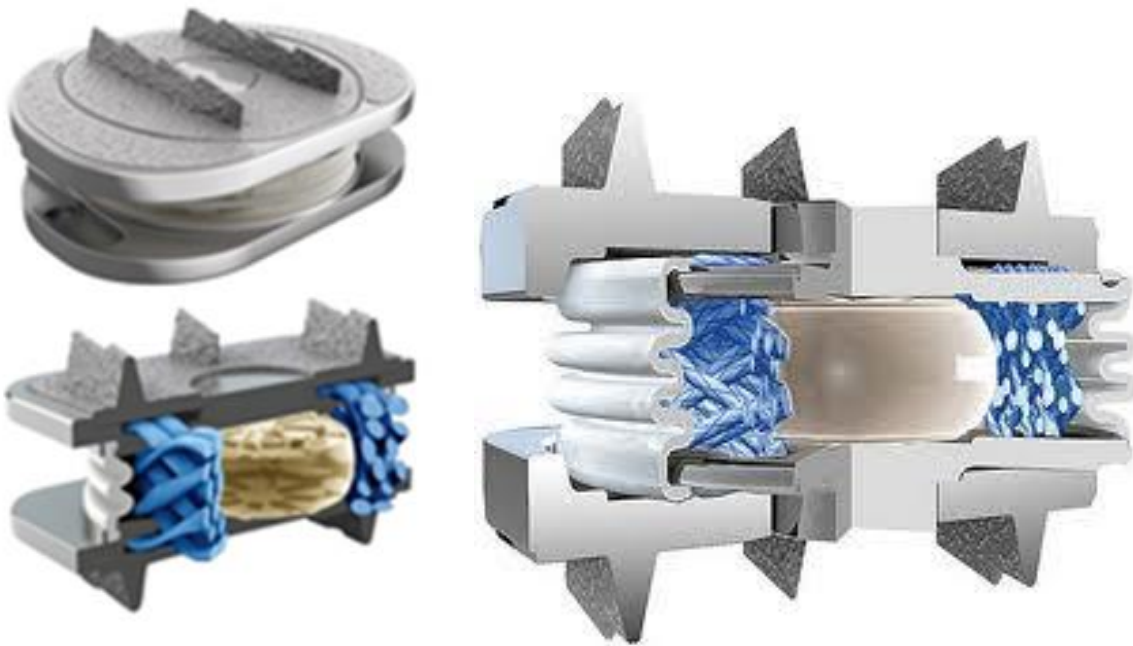
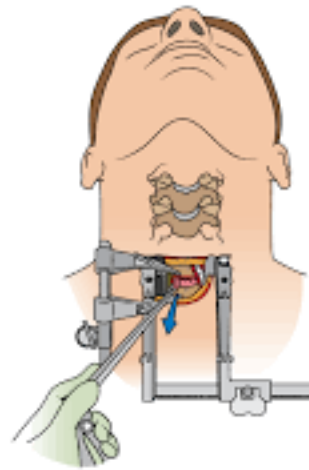


## Cervical Disk Replacement

Cervical disc replacement is a motion preserving procedure done for one or two-level problems in the cervical spine. The problem can neck pain related to arthritis, nerve pain or problems related to pinching of nerves or the spinal cord, or a combination of the two.

Disc replacements have been done for more than two decades. Currently, we use the third-generation of these implants. Our implant of choice is currently M-6 from Spinal Kinetics, which offers the closest biomechanics to nature of human disc. This implant differs from others by being compressible (squishy), which is not a characteristic of other implants on the market. Additionally, it offers six degrees of freedom, and a close restoration of the center of rotation of the normal healthy human disc.





Cervical disc replacement and cervical fusion are performed through the front of the neck providing direct access the problem disc

Cervical disk replacements are done using a small incision on the front of the neck, which allows safe and easy access to the disks. This is the same approach and technique utilized with anterior cervical discectomy and fusion (ACDF), a common procedure to fuse levels of the cervical spine. However, disk replacement is a motion-preserving procedure, so it offers several benefits over fusion:

- First and foremost, it can decrease the chance of adjacent segment disease, which is seen in up to 3% of fusion patients per year.
- It eliminates the need for a revision surgery for a nonunion (failure of fusion to take), which is seen in some patients who undergo a fusion.

Current peer-reviewed literature indicates that, when comparing disk replacement with fusion surgeries, disk replacement surgeries typically require follow up surgery less often, both at the same level as the previous surgery (the index level) and at the adjacent levels.

At times, we perform a hybrid reconstruction - placing a total disc replacement at one level and performing a fusion at another level.

One of the more common problems associated with fusion - a transient dysphagia (difficulty swallowing) that can persist for up to few weeks following the operation is also seen with a disc replacement. However, with modern surgical techniques it is rare to see this become a long-term problem.

The M6 disc has a combination of titanium endplates and a plastic core. The core has 2 layers: an artificial outer lining of braided polyethylene cables mimicking the human annulus, and a soft compressible inner nucleus made of polyurethane. It is possible that wear debris is being generated from the motion of either the titanium endplates or the plastic core, which could cause problems at the surgical site. However, the physical loads on the disc are relatively small, and very few cases of endplate erosion due to the wear debris have been reported.

## **Post-op instructions**

### **Cervical Disk Replacement**

-Depending on patient factors and number of levels being treated, you may go home the day of surgery, or the following day. These instructions may vary slightly depending on the length of your stay.

#### **WOUND CARE**

-You may have a small drain placed in the wound to prevent the accumulation of blood. This will be removed before you leave the hospital.

-You can shower normally, just pat the wound dry and make sure water doesn't accumulate under the bandage. No bathing or swimming (don't submerge the incision) until after your first follow up.

-If water **DOES** accumulate, simply remove the bandage. No further bandaging is needed. There may be steri-strips over the incision. Just leave these alone; they will either fall off on their own or will be removed at your first post-op visit. You can continue to shower normally, just let water run over the incision, but do not scrub.

-Either way, the bandage can be removed after 5 days. No further bandaging is needed.

#### **BRACING**

-Bracing is discouraged after disk replacement, because motion is a good thing. In the event that a combination disk replacement/fusion (hybrid procedure) is to be done, bracing may be utilized. Discuss this with your doctor.

#### **DIET**

-Swallowing will feel "different" or slightly painful at first, but this will slowly improve over time as swelling goes down.

**-Some mild difficulty swallowing is normal, but SEVERE difficulty or trouble breathing is NOT normal. If this occurs, proceed directly to the emergency department and contact our office.**

-Eat or drink whatever you want, as long as it's comfortable. Imagine what you would eat with a sore throat, and start with that. Add on harder to swallow foods as your comfort allows.

-It is not abnormal to experience some nausea after surgery. If you feel some nausea, eat/drink like you would with a stomach bug, and progress your diet as your nausea allows.

**-If you have severe or consistent nausea, medications can be prescribed to help. Call us if you are having that problem! If you have had problems with nausea in the past, either related to prior surgeries or pain meds, or if you just feel like you have an easily upset stomach, let us know beforehand. We can prescribe you anti-nausea medications just in case.**

## **MEDICATIONS**

**-Pain medications will be prescribed. Take these as written on the bottle, do not take more than the prescribed amount unless if you have been instructed by your doctor. You may take less if your pain is not bad, but do not take over the prescribed amount.**

**-Pain medications can cause constipation. If this is a problem, take over the counter laxatives or stool softeners. They can also cause nausea, as addressed above. Taking them at meal times can help limit nausea.**

**-Restart all home medications after surgery, unless you are directed to do otherwise.**

**-If you take an anticoagulant or blood-thinner, discuss this with your doctor prior to restarting this medication. This includes Plavix/clopidogrel, Coumadin/warfarin, Aspirin, Xarelto-rivaroxaban, Eliquis/apixaban, heparin, and others.**

**-An anti-inflammatory like Celebrex may be prescribed to limit swelling and inflammation. Take this as prescribed.**

**-Sometimes a nerve pain medication like Gabapentin or Lyrica can be prescribed. Also take these as directed. The medications can sometimes cause side effects (drowsiness, confusion) that can make them difficult to tolerate. Let us know if you have had a problem with either of these medications in the past.**

## **ACTIVITY**

**-Try to avoid any sudden or extreme neck motions, but otherwise move normally; don't worry about the normal motions of day-to-day life.**

**-That being said, motion is OK (and even encouraged), but avoid strenuous activity. Avoid heavy lifting and overhead activities.**

**-Make sure that you are getting up and taking walks frequently. We want you moving! Remember, this is surgery on your neck. Not your arms, and not your legs.**

**-Physical therapy may be considered later in your recovery, depending on a variety of factors, but not initially. At first, walking is your therapy, as you recover and heal.**

**-Do not drive while taking pain meds.**

## **REASONS TO CALL US**

**-Fever over 101.5 degrees F.**

**-Excessive pain despite appropriate use of pain medications and other pain medications.**

**-Excessive drainage at the surgical site: mild bleeding is common, but significant bleeding requiring multiple bandage changes, or fluid that doesn't look like blood, is a good reason to call. Really, call us if anything is coming out of the wound other than a few spots of blood.**

**-Nausea/vomiting that you can't control.**

**-Progressive difficulty swallowing or breathing. Mild difficulty swallowing is normal, but severe difficulty swallowing or difficulty breathing is a reason to call us immediately.**

### **FOLLOW-UP**

**-Your first follow up should be scheduled prior to your surgery, about 2 weeks after the surgery. If it hasn't been scheduled yet, call our office and we will make sure you are seen at around the 2-week point.**

**-There will be several follow ups after this initial appointment. Usual follow-up appointments are around 2-weeks, 6-8 weeks, 3-4 months, and 1 year. At many of these appointments, x-rays will be taken to monitor bone healing. Sometimes more or less follow-ups are required, depending on your surgery and your progress.**

**Don't hesitate to call us at 415-750-5570 if you have any questions.**