

Post operative instructions after anterior cervical discectomy and fusion or total disc replacement

Overview

ACDF is anterior cervical discectomy and fusion, which is a minimally invasive surgery done on the neck to relieve symptoms (neck and arm pain) from a degenerative disc or bulging disc. ACDF is very beneficial for patients who do not find relief from conservative treatment and physical therapy.

It is easier for the surgeon to reach the spinal column through the front of the neck than the back because he does not have to cut any significant muscles or work around the spinal cord. It increases the safety of the procedure and reduces post-operative pain.

After decompressing the nerve or spinal cord the surgeon replaces the disc. This is to ensure that the spine is aligned and to prevent the bones of the spine from rubbing against one another.

There are two main options for disc replacement:

Bone graft and bone graft substitute: A bone graft is when the surgeon attaches bone to the area to replace the disc. The bone may come from somewhere else in the person's own body, from a bone bank or human-manufactured materials.

Arthroplasty: This is when the surgeon replaces the disc with an artificial disc.

Once the replacement disc is in place, the surgeon uses a titanium plate and screws to attach the bones. When the surgery involves a bone graft, the bones will eventually grow together. Until that happens, the plate and screws provide stability.

An x-ray machine helps the surgeon ensure the replacement disc is in the right place. After the procedure, the surgeon moves the tissue of the neck and throat back to its original location and seals the wound with stitches.

Recovery after an anterior cervical discectomy and fusion or Total Disc Replacement

Despite the name of the surgery, the spine is not actually fused directly during spinal fusion surgery. Instead, during the surgery a bone graft is placed in the spine so that two parts of the vertebrae can gradually grow together into one longer bone or in some cases instead of a bone graft an artificial disc can be used.

Although it is not a major surgery and most patients will be home a day or two after the procedure it is very common to experience a variety of symptoms.

Is it normal?

It is very common during the first weeks post surgery to experience the following:

Difficulty swallowing or talking

Having difficulty swallowing, also called dysphagia, is among the most common aspects of an ACDF recovery. Most ACDF patients fully recover their ability to swallow within a few days after surgery. Sometimes, however, dysphagia can linger for few weeks.

A hoarse or weak voice, also known as dysphonia, is rare after ACDF surgery. Most patients fully recover their voice within a few days of surgery.

Numbness

Many patients complain about a "new" reported onset of "numbness" in the area where the pain is now gone following the decompression of the nerve(s). The pain covers up these feelings before surgery and, only after surgery when the pain is resolved do these feelings start to be noticed by the patient.

Numbness in the arm or hand is often the symptom which takes the longest to resolve, taking a few months to disappear or become fairly tolerable. However, sometimes the sensations mentioned above can be permanent.

Neck pain

Most patients will experience a dramatic improvement in their neck pain following surgery, but it will be a slow process. It is unrealistic however to expect it to disappear straight away or even completely. The goal of spine surgery is to alleviate severe disabling, pathological pain. It cannot get rid of normal aches and pains which would be considered non-pathological. It is very common during the first few weeks to experience muscle spasm and some gentle massage or muscle relaxants can help tremendously.

Pain in between my shoulder blades and muscle spasms

When the disc degenerates, it collapses causing narrowing of the holes called foramen through which the nerves are exiting the spinal canal. At the end of the procedure, the surgeon will place a cage or artificial disc to restore the disc height back to its normal size. This will stretch the facet joints and muscles in the back of the neck and can cause you some muscle spasm and pain between the shoulder blades but it is important as it will ensure an adequate alignment of your spine with enough room for the spinal cord and the nerves. These symptoms usually take two to four weeks to subside.

Managing your Mood, Expectations and Goals

A successful result after surgery also depends on a positive attitude and efforts by patients to aid recovery. Your pre operative symptoms may take weeks or longer to fully improve. Generally, symptoms such as pain shooting into the arms improves first. Numbness is often the last symptom to improve and usually can even be slightly worse than before the surgery (do not worry this is normal).

Quite frequently patients experience a brief period of "let down" or depression after surgery. Some may subconsciously have expected to feel better "instantly" even though they rationally understand that this will not be the case. Patients commonly question their decision to have surgery during the first few days after surgery. As the healing occurs, these thoughts usually disappear quickly.

If you feel depressed, understanding that this is a "natural" phase of the healing process may help you cope with this emotional state.

Quite frequently this happens around day 3 and we call it "the third day blues" and again after 3 weeks where you become more active but still are not fully recovered.

So you are feeling better and the discomfort you are now in is nothing compared to what you endured before surgery or perhaps you feel quite the opposite. Many patients have verbalised frustration at not being able to resume normal activities - for example, driving, going back to work or participating in simple activities of daily living. Having to limit and curtail your activities, along with pain and discomfort can leave you with the impression that you will never get better.

Remember your body needs to recover from major surgery. How you take care of yourself in the post operative period will have a direct bearing on the ultimate result. This is the time to take care of yourself rest, eat a well balanced diet high in protein, walk every day if possible, take a more positive attitude and feel good about yourself. It takes a great deal of courage and determination to undergo what you have been through.

Here are some additional tips for maximising your recovery:

Wound Care and sutures

Your wound will almost always be closed with dissolvable sutures underneath the skin. The wound will be covered with Steri-Strips.

You may shower as soon as you feel safe to do so. Change the dressing every couple of days for one week and after having a shower if it is wet. Pat the wound dry and keep it clean. Do not apply creams or cleansers to the incision. Do not submerge the incision under water in a bath and avoid going in a pool for 4 weeks.

The surgical dressing should be removed one week after discharge from hospital. The Steri-Strips will peel off on their own in time. If the wound is sensitive or your clothes rub against it, you may apply a clean dry gauze to cover the wound.

Mild swelling around the incision after surgery is normal. You may even notice a slight increase in swelling after activities. This will dissipate in time.

Once the dressing is off do not expose the wound directly to the sun to avoid hyperpigmentation.

If you have any signs of discharge, fever, redness or worsening swelling around the wound please see your GP straight away or call my office.

Please avoid NSAIDs and smoking

If you had a fusion, try not use non-steroidal anti-inflammatory drugs (NSAIDs) (e.g., aspirin; ibuprofen, naproxen, diclofenac,...) for 3 to 6 months after surgery. NSAIDs may not only cause bleeding but have been shown to considerably slow bone healing.

Quit Smoking

If you currently smoke, it is vital that you quit now, so that you can focus on your recovery without the added burden of nicotine withdrawals. Since ACDF involves the fusion of vertebrae, which occurs over time as the bones grow together, the last thing you want to do is inhibit bone growth, which is exactly what nicotine does. Nicotine is toxic to bone and interferes with the cells (osteoblasts) that grow new bone. Smoking following ACDF dramatically increases the odds that your fusion will not heal properly.

Diet and constipation

Multiple factors in the peri-operative time frame can dehydrate the body and increase your chance of constipation. Not eating or drinking the night before surgery, anesthesia and most importantly intravenous and oral narcotic pain medication will cause constipation.

We encourage a balanced diet full of fibre to decrease the possibility of constipation. Soft or liquid diet is best tolerated until it is easy to swallow. Over the counter products such as prune juice or Metamucil will help. Use as directed. Drink twice as many fluids as you did prior to surgery, or 6–8 glasses of water daily.

How to Manage Dysphagia During Recovery

Stock up on soft foods. Yoghurt, apple sauce, creamy soups (no chunks), and other soft foods are good choices during the recovery period when swallowing is still difficult.

Puree hard foods using a food processor or blender to breakdown solid foods—such as meat, poultry, veggies, and others, it is a good way to keep the calorie count up and maintain protein levels. Remember to add enough liquid so the pureed food slides down easily.

Use a bendy straw if it helps. Unlike a straight straw, a bendable straw's angle can be altered to conveniently meet the user's mouth to minimize head and neck movements.

Activities & Driving

You are not permitted to drive a motor vehicle for 3 weeks following the surgery. You may not drive while taking opioids pain medication. At the beginning, be cautious and avoid driving during the busy traffic times.

You should not lift anything heavier than 5 kg for the first 4 weeks. Avoid overhead activities and repetitive pulling or pushing with your arms. The only exercise permitted, and in fact encouraged, is walking.

Sleeping

Please sleep with the head of the bed up at 30 degrees by using pillows or by sleeping in a reclining chair, with the head of the chair in the semi upright position. You may sleep on either side or your back. Sleeping in this elevated position helps to reduce the swelling in your neck in the first 7-10 days after your surgery. After 7-10 days, you may sleep in a flat position if you are comfortable.