

Patient Instructions: Anterior Cervical Discectomy and Fusion (ACDF)

Surgical Technique

An anterior cervical discectomy is the most common surgical procedure to treat damaged cervical discs. Its goal is to relieve pressure on the nerve roots or on the spinal cord and/or treat a painful disc. It is called anterior because the cervical spine is typically reached through a small incision in the front of the neck (anterior means front). During the surgery, the soft tissues of the neck are separated using minimally invasive techniques. The disc is then removed and pressure is taken off of the nerve roots and spinal cord using an operating microscope and microsurgical technique. After removing the disc and performing microsurgery, a small spacer is inserted into the disc space. This may be made out of donor bone, PEEK (a body-friendly polymer spacer) or even the patient's own bone taken from the patient's body. This bone or mixture of bone fills the disc space and ideally will join or fuse the vertebrae together. The graft is usually held in place with a small metal plate on the front of the vertebrae and some screws. Over time, the vertebrae grow together and this is called fusion. It usually takes a few months for the vertebrae to completely fuse, but can take up to a year or two. Please visit www.bnasurg.com for more information.

Before Surgery

- Seven (7) days prior to surgery, do not take any anti-inflammatory medications or NSAIDS (Celebrex, Ibuprofen, Aleve, Naprosyn, Advil, etc.) as this could have adverse effects on your spinal fusion and cause prolonged bleeding in surgery.
- Do not eat or drink anything after midnight the day before surgery. This means nothing to drink the morning of surgery, except you may take your normal medications with a sip of water, if needed. This includes your blood pressure medicine, which in general should be taken.
- If you take insulin, consult your surgeon or primary care doctor about taking it before surgery.
- Check in on time the day of surgery. If you are late, your surgery may be cancelled.
- Bring your preoperative folder with you to the surgery and have it when you check in.
- If you have a copy of your MRI or x-rays, please bring these with you to the surgery even if your surgeon has already seen it or might have a copy. Surgery may be cancelled if we do not have your radiographic images.
- Please be aware that smokers are recognized to have a significantly higher risk of postoperative wound healing problems, as well as operative and postoperative bleeding. Smoking disrupts the normal function of basic body systems that contribute to bone formation. Smoking could result in higher nonunion rates. Smokers understand and must agree to discontinue smoking for at least two weeks before and after surgery. Although it helps to stop smoking for several weeks before and after surgery, cessation does not eliminate the increased risk resulting from long-term smoking.

After Surgery

You may experience a lump feeling when swallowing, excessive phlegm production, or sore throat after anterior cervical spine surgery. Due to the nature of this approach and intraoperative manipulations, you may experience the following temporary side effects: dysphagia (difficulty swallowing) and hoarseness of voice. The degree of postoperative pain varies significantly, but patients usually have minimal pain at the incision site. It is more common for patients to experience pain at the base of the neck and between the shoulder blades from disc space distraction. Swelling in the throat area, swallowing difficulties, hoarseness and other side effects generally reach a peak between 2 – 5 days after surgery and will begin to subside. You may want to sleep with the head of the bed elevated for the first 5 days to minimize the symptoms.

Activity Level

- Do not lift more than 5-10 pounds for the first few weeks after surgery. This may be increased to approximately 20 pounds after 4-6 weeks. Do not lift anything greater than 20 pounds for the first 3 months.
- Avoid prolonged upright sitting on hard surfaces or long car rides (more than 3 hours) for 2–4 weeks.
- You may drive after about a week and as soon as it is comfortable when no longer under the influence of pain medications. Avoid driving if you are in a rigid, form-fitted plastic collar.
- Limited bending or twisting of the cervical spine is advised. If physical therapy has been prescribed, you are not to perform range of motion, flexion, extension or lateral bending until fusion is documented.
- If a hard collar is prescribed, it should be worn at all times, except while showering and should be replaced immediately thereafter.
- Avoid activities with the potential for falling or physical contact until cleared by your surgeon.
- Start walking as soon as possible after the surgery. Walking helps to prevent blood clots and increases muscle strength.

Bandage

- Bandage (if present) may be removed the second day following surgery.
- Steri-strips should be left intact on the incision until returning to the clinic for your postoperative follow-up visit 7 to 14 days following surgery.

Drain

- If you are discharged with a drain, you will need to track the daily output of the drain. You will be instructed prior to hospital discharge how to care for the drain and empty it. Almost all drains are removed within 7 days after surgery, but individual cases vary. **IF YOU HAVE A DRAIN, please NOTIFY the BNA office (303 938 5700) of the drain output EVERY OTHER business day, unless instructed otherwise.**

Bathing

- You may shower the third day following surgery.
- Try to limit showers to no more than 5 – 7 minutes.
- Do not scrub the wound. Let water run over the incision, then pat dry with clean towel.
- Do not soak in bathtub, hot tub or pool for at least 2 weeks.

Diet (Narcotic pain medications are very constipating; be proactive with stool softeners and laxatives)

- A high fiber diet is recommended.
- Avoid straining on the toilet. Keep stools soft with a high fiber diet and/or use of prune juice, Metamucil, Fiber One cereal, etc.

Pain Medications

- Do not take NSAID medications (Ibuprofen, Naprosyn, etc.) or Cox-2 inhibitors (Celebrex, etc.) for 3-6 months following surgery.
- Tylenol can be taken for pain as needed.
- If Tylenol does not adequately reduce pain, narcotic pain medications are prescribed.
- Do not allow pain get out of control before taking medication or it will be less effective.
- We will not refill pain medications over the weekend or after hours. Anticipate the need for medication refills.

Follow-up

- Call Boulder Neurosurgical Associates' (BNA) office (303-938-5700) and schedule your routine postsurgical visit for 7-14 days after surgery. Other follow-ups will be scheduled as needed. BNA generally follows its patients for at least 2 years after surgery, often longer.
- Please call your physician's office immediately with any problems, or go to the emergency department with progressive difficulty swallowing, difficulty breathing, significant neck swelling, new numbness or weakness, fever greater than 101.5 degrees or any other concerns.

Other FAQs

How long will I be in the hospital? This varies depending on the type of surgery performed. For single, two and some three level surgeries, you will likely go home the day of the surgery. Otherwise, you will go home the day after surgery. We have found that patients generally prefer the comfort and support that home offers. Going home sooner lowers your risk for complications such as hospital-acquired wound infections, blood clots, and urinary tract infections.

How much time off from work? The amount of time needed to recover prior to returning to work varies and depends on the surgery, your job and you as an individual. Typically, 1 week is sufficient. However, patients should ask their surgeon for an individual recommendation. For jobs requiring lifting and physical exertion, up to one month may be required.

When can I resume driving? Driving is acceptable approximately one week after surgery depending on the use of pain medication. We generally recommend that you not drive while taking pain medications following surgery. Driving after an anterior cervical fusion must be done carefully as we do not recommend excessive turning of the head and neck. If you have a plastic or fitted hard collar, it is not recommended that you drive because the collar can significantly limit your ability to turn your head.

Will I wear a cervical neck collar? The use of a cervical neck collar varies depending on the surgeon and the patient. Most patients will at least wear a soft collar for approximately one month. The use of a collar may be longer for multilevel fusions or may even require a stiffer collar. The collar will be provided on the day of surgery. The collar should be worn at all times, except while showering and should be replaced immediately thereafter.

Will I need pain medications? We will prescribe pain medications and other peri-operative medications on the day of surgery or prior to your discharge from the surgery center or hospital.

Will I need Physical Therapy? We usually recommend physical therapy and will refer you to a therapist at your first postoperative visit. Please limit bending and twisting of the cervical spine. No pushing, pulling, or dragging and no range of motion (ROM) exercises for 3 to 6 months or until your surgeon determines that your fusion is solid. Refrain from whiplash like motions, high impact activities such as running or horseback riding, or any radical side-to-side motions. A good rule of thumb is, 'If it hurts don't do it'.

What kind of follow-up is required? Patients return to our office for routine follow up appointments at intervals that are determined on a case-by-case basis. We typically see patients back in the office within a couple weeks following surgery and then increase this to several months followed by an annual exam. Your individual needs will be determined by your surgeon at each follow up visit.

Do I need antibiotic prophylaxis for dental procedures? We recommend avoiding routine dental procedures for 3 months following spinal and other neurological surgeries. This includes teeth cleaning at your dentist office. You should brush your teeth as you normally do.

If you must have a dental procedure within 3 months, then it would be advisable to use an antibiotic prophylaxis. We generally do not make recommendations about the choice of antibiotic when using it for prophylaxis, but we would be happy to discuss this with your primary care physician.

After 3 months, prophylactic antibiotics are not recommended prior to dental procedures to prevent infections except for specific individuals with extenuating circumstances, where the determination and prescription are made by the patient's primary care physician or dentist.

patient that are at risk for infective endocarditis should use preventative antibiotics before dental procedures after consulting with their cardiologist or primary care physician.