

## **Anterior Cervical Discectomy and Fusion: Post-Operative Instructions**

Thank you for choosing Pacific Brain & Spine Medical Group for your surgical care. A successful result depends not only on the success of the surgical procedure, but also on your compliance and realistic expectations throughout the post-operative period.

### **What is an Anterior Cervical Discectomy and Fusion (ACDF)?**

ACDF is a front neck surgery that is done to remove either a herniated disc or overgrown bone that is putting pressure on the spinal cord or nerve roots. This pressure can cause arm/hand pain, numbness/tingling, weakness, lack of coordination and fine motor control. The success rate of relieving arm pain is very high. The surgery involves a two inch horizontal incision located on the front (anterior) of your neck (close to the throat area). The incision follows a natural skin crease and will be barely visible once healed.

During surgery, your neurosurgeon protects the nerve roots and safely removes the herniated disc, eliminating pressure on the nerves. If necessary, bone spurs are removed to increase the space in the spinal canal. Next, bone graft is placed where the disc was, allowing the two vertebrae to grow together as one (fusion). Finally, a small titanium plate is screwed over the space between the vertebrae and held in place by small screws. The instrumentation used for your surgery will not set off alarms at the airport and you can have an MRI after surgery.

You do not need to take antibiotics prior to dental work after implantation of this plate. The surgery typically lasts 2–2½ hours, depending on the number of discs operated upon, whether or not previous surgery has been performed, and the severity of pressure on the nerves. Blood loss is minimal so no blood donations are necessary before the operation. Generally if your operation is scheduled earlier in the morning, you may be discharged in the afternoon. If your surgery is scheduled later in the day, you may stay overnight and be discharged the following morning depending on if your pain is under reasonable control.

### **Preparing for Surgery**

***Remember to bring your films/discs with you to the hospital on the day of surgery. Without them your surgery might be cancelled.***

Prepare your home to make life after surgery easier. Stock up on fresh fruit, vegetables, frozen meals, or other food and drink items of your choice. Move frequently used items that you can reach them (free of clutter), without having to excessively bend or reach. Practice this before surgery. Arrange for family member(s) and/or friend(s) to help you with chores, errands, and support.

Stop smoking if you smoke! Tobacco can delay or interfere with your body's ability to heal after surgery.

Stop Non-Steroidal Anti-inflammatory (NSAIDs) Medications 7-10 days prior to surgery. Examples of NSAIDs are Motrin, Advil, Ibuprofen, Aleve, Naprosyn, Mobic, Voltaren, and Diclofenac. Also stop Celebrex prior to surgery.

Stop anti-coagulants 5 days prior to surgery. Discuss this with your prescribing provider. Generally, you may continue taking Aspirin 81 mg.

Inform your active health care providers (Primary Care Doctor, Pain Management Doctor, Cardiologist, Rheumatologist, and Urologist) involved in your care that you are having surgery. Medical clearance is needed to ensure that you are in good health to undergo surgery, including general anesthesia.

One week before surgery, you will register at the hospital or surgery center. Blood work, urinalysis, and possibly an EKG (heart analysis), will be done a week before surgery.

Do not drink or eat anything after midnight. This includes water, coffee, chewing gum, and mints. If you take daily medication and have been told to continue it, take it with small sips of water.

### **Day of Surgery**

You will arrive to the hospital, surgery center, or outpatient surgery setting two to three hours before surgery. You will change into a hospital gown and an intravenous line (IV) will be started. Additional forms might be given to you to fill out. Please have a list of your current medications and dosages with you. You will meet members of your surgical team, including nurses and an anesthesiologist. An anesthesiologist is in charge of your anesthesia. Antibiotics are administered to you through your IV, to help decrease the risk of infection.

### **After Surgery**

You will go to the post-anesthesia care unit (Recovery Room). You will stay there for about one hour. Family members or friends are not allowed in the recovery room. When you first wake up from surgery, you may feel groggy, thirsty, nauseated, confused, or cold. Your throat may feel sore. You also will be wearing special stockings to prevent blood clotting in your legs. A urinary catheter is usually not necessary. Once you are able, you will be encouraged to walk as soon as possible. You may meet with a physical therapist.

### **Wound**

Your incision will be located on the right front of your neck (about two inches horizontal in length). It will be closed either with the derma-bond (medical grade superglue) or steri-strips (small pieces of white tape). There are no sutures you will need to have removed. Your incision will be assessed at your first post-operative visit (scheduled appointment with our nurse practitioner and nurse two weeks after surgery). You will wake up from surgery with 2x2 white

gauze covered by a transparent dressing. You may remove this outer dressing 24 hours after surgery. You may shower the day after surgery. There is no need to cover your incision. Gently pat the incision dry. Do not scrub the incision site or put any creams or ointments on the incision site. If the incision site is itchy or bothersome, you may gently remove the steri-strips. Do not take baths, soak in a hot tub or swim until we have assessed your incision.

After two weeks, please apply (sun protection factor) SPF 50 or higher or cover when outside to prevent sun damage.

### **Collar**

You may be required after surgery to wear a collar. Your collar may be a soft (foam) collar or a more rigid (foam and plastic that can be adjusted) collar. You may purchase a collar and be fitted for the appropriate collar by our office, by an outside vendor (Capstone, Hanger), or you may obtain the collar on the day of surgery. Typically, you should wear your collar at all times. You may remove the collar when you are eating. If you are required to wear your collar at all times, including when showering, replacement foam pads will be given if needed to swap out the wet/dirty pads.

### **Bone Growth Stimulator**

You may be prescribed a Bone Growth Stimulator. If you are obese, having more than one level fused, or have a history of smoking tobacco, the bone growth stimulator will possibly be prescribed. A sales representative from an outside company that distributes this device will contact you. This device helps the healing of your spinal fusion. Bone growth stimulator uses a very low-strength pulsed electromagnetic field to activate the body's natural healing process. The device is lightweight, painless, and adjustable for a comfortable fit. It may be worn alone or over a neck brace. It is powered with a rechargeable battery, which allows the unit to be portable. You can sit, stand, sleep, walk, or recline. Generally, we advise for you to wear the stimulator for 30 minutes daily for 3 months.

### **Pain Relief**

We will provide you with prescriptions for pain, spasms, and prevention of constipation to help you with your recovery. Ideally, we will send your prescriptions to your pharmacy before your scheduled surgery.

### **Medications for pain**

Opioid medicines (narcotics) relieve pain by altering how the brain perceives pain. Examples of narcotic pain medications:

<b>Generic Name</b>	<b>Brand Name</b>
acetaminophen and codeine	Tylenol with Codeine

hydrocodone and acetaminophen Norco, Vicodin  
oxycodone and acetaminophen Percocet

Side effects of opioids include:

- Confusion, clouded judgment
- Drowsiness.
- Nausea/vomiting
- Constipation (which can increase back pain)

### **Medications for Spasms**

The muscle-relaxing effects of these medicines are the result of their ability to depress the central nervous system. They are also called sedatives.

Examples of muscle relaxants:

<b>Generic Name</b>	<b>Brand Name</b>
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carisoprodole	Soma
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cyclobenzaprine	Flexeril
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diazepam	Valium
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metaxalone	Skelaxin
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methocarbamol	Robaxin
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Side effects of muscle relaxants:

- Drowsiness or dizziness
- Possible addiction or dependence
- Dry mouth
- Anxiety
- Fatigue
- Urinary retention

### **Medications to prevent constipation**

We typically recommend taking both a stool softener and laxative. The combination of these two medications can be bought over the counter as 1 medicine called, Senokot-S.

Ingredients: Sennosides 8.6 mg (laxative) and Docusate Sodium 50 mg (stool softener).

Directions: Take two tablets at bedtime with a maximum of four tablets twice a day. Do not take for more than two weeks. Ensure that you drink at least eight ounces of water daily.

Or you can purchase a stool softener and/or laxative of your choice.

<b>Generic Name</b>	<b>Brand Name</b>
Docusate	Colace, Surfak
Sennosides	Senna-Lax, Senokot

Another option is taking Miralax (polyethylene glycol). This is an odorless powder that is as an osmotic-type laxative. Directions: Mix the powder with a glass (four to eight ounces) of liquid such as water, juice, coffee, or tea. Before drinking the solution, stir the powder well until it completely dissolves

When the combination of stool softeners and laxatives do not alleviate your symptoms, you might need to take a different approach, such as a rectal DULCOLAX suppository.

Please remember that constipation is common after surgery because of the anesthesia, narcotics, changes in diet/fluid intake, and reduced physical activity.

Other ways to prevent constipation:

- Eat a high-fiber diet
- Walk Daily
- Drink Water

### **Medication for sore throat**

We recommend, CEPACOL SORE THROAT. This may be purchased over the counter. Ingredients: Benzocaine 15 mg (oral pain reliever) and Menthol 3.6 mg (oral pain reliever). Directions: Allow the lozenge to dissolve in your mouth; may be repeated every 2 hours as needed.

Other ways to treat sore throat or difficulty swallowing:

- Eat soft foods and chew your food well.
- Examples of soft food items: Jell-O, pudding, popsicles, yogurt, eggs, mashed potatoes, and soup.

### **Exercise/Activity**

The best exercise is walking. Small amounts done frequently are best. You may walk up and down stairs. Assistive devices, such as a cane or walker may be helpful if needed. Repetitive activities using your arms may aggravate muscle spasms around your neck and upper back. Modify your activity with this in mind. Do not lift repetitively above your head for six weeks. Do not lift more than 5 to 10 lbs. (1/2-1 gallon of milk) for the first two weeks after surgery. Sexual

activity, like other exercise, should be gradually resumed, as you feel better, usually after a couple of weeks.

### **Return to Work**

We advise that you take adequate time off work to dedicate time to heal from surgery, typically 2 to 6 weeks, depending on your occupation. Please complete your portion of any paperwork such as state disability or medical leave forms. Arrange for our office to complete the required paperwork if needed.

### **Driving**

We recommend that you do not drive for one to two weeks following surgery. You can drive when you feel up to driving and are not taking narcotic pain medications or other medications that impair judgment or mental clarity (i.e. Valium, Soma, etc.). Do not plan long trips without adequate resting periods (every hour is recommended).

### **What to Watch for**

- Oral Temperature greater than 101.2F, excessive redness, swelling, or drainage at the incision site, or if the incision site opens as well as new increasing pain, numbness, weakness in your legs. Swelling of the legs especially if it is noticeable in only one leg as this could indicate a DVT (blood clot) and requires immediate medical attention.
- Call our office if you have any questions or concerns relating to your recovery from surgery.
- Call your primary care physician for general medical problems.  
For medical emergencies, please call 911 or report to the nearest emergency room.

### **What to expect when healing**

Pain, numbness and tingling present before surgery may take several months to a year and a half to resolve. Please be aware there may always be some residual numbness.

Following are common side effects following surgery:

- Hoarse Voice
- Sore Throat
- Difficulty Swallowing
- Difficult time sleeping
- Constipation
- Increased pain to the pre-operative pain (neck, arm, or other)
- Muscular pain/ spasms in between the shoulder blades
- Skin reaction from steri-strips

## **After Surgery Care**

Following surgery, we advise walking 10 to 30 minutes daily, as tolerated.

Following surgery, 2 post-operative appointments will be scheduled for 2 and 6 weeks after surgery. The first post-op appointment is with our nursing staff (Nurse Practitioner and/or Nurse). The second post-op appointment is with your neurosurgeon.

Physical Therapy is available to you after surgery, although it is not mandatory in your recovery. It is beneficial in teaching you proper body mechanics, good posture, home exercise. If you have upper extremity weakness, physical therapy will be a mainstay in your rehabilitation. In general, physical therapy will start 6 weeks after surgery.

X-Rays: Typically, x-rays are done 6 weeks post-surgery. You will be given an order for x-rays (done at an outside facility) on your 1st post-operative appointment. Please bring your x-ray images on disc with you to your second post-operative appointment.

Repeat MRI is also not necessary.

## **Good Postural Tips**

- Moving safely protects your spine while it heals. Remember, if it hurts, do not do it!
- Avoid dropping your head forward. This places stress on the muscles in your neck. When reading, raise your reading materials to eye level.
- When standing or walking, position your head squarely over your body.
- Wear comfortable and supportive shoes.
- Bend with your knees not your waist or spine.
- Avoid sudden and twisting movements.

**Standing:** Stand with one foot slightly in front of the other or just stand with your feet shoulder width apart. Keep your knees relaxed and your stomach muscles tight. Turn with your feet not your body.

**Sitting:** Avoid slouching by keeping your ears, shoulders, and hips aligned. Use a straight back chair with arms for support. A small stool might be helpful to support your feet.

**Sleeping and Lying:** Avoid extreme flexion, extension, and rotation of your neck. Sleep on any mattress that is comfortable and pillow(s) as desired for comfort. Placing a pillow under your knees while laying on back or lying on your side with a pillow between knees help reduce the pressure on your spine.

**Getting in and out of a chair or car:** Scoot to the front of the chair or car. Bend or hinge forward from the hips keeping proper spinal alignment. Push with your legs and come to stand. Keep chest lifted.

**Getting out of bed:** When lying down, roll onto your side, bend knees and roll, moving knees, hips, and shoulders together. To sit up, use the log rolling technique by lowering your legs over the edge of the bed together. Push on your elbow and hand, bracing your stomach muscles and come to sit with shoulders and hips moving together. Use your arms to push your upper body into a sitting position. Remember to avoid twisting and bending. Gently move your buttocks to the edge of the bed. Push with your legs as you stand straight up.

**Lifting:** Stand close to the object, with feet firmly planted, and in a wide stance. Bend your knees and keep your back straight. Reach with the elbow bent rather than straight. Tighten your stomach muscles when you lift. Lift the load by slowly straightening your knees and avoid jerking your body.

### **Caring for your spine**

- Ice packs placed on the neck, shoulder, or wherever pain is felt can help decrease inflammation. Try to do this three to four times per day for ten to fifteen minutes at a time if needed.
- Manage stress
- Maintain healthy weight: extra weight puts unwanted pressure on the muscles, ligaments, and tendons in your spine.
- Do not sit or stand too long. It is important to change positions frequently. Every half hour to hour is best.
- Sleeping: Sleep in any position that is comfortable. Some people find it beneficial to sleep upright for approximately one week following surgery to help decrease swelling in the neck.
- Please avoid anti-inflammatory medications for six weeks following surgery. Use of these medications could delay the healing of your fusion.