

Anterior Cervical Discectomy and Fusion (ACDF), Anterior Cervical Corpectomy and Fusion (ACCF), or Posterior Cervical Laminectomy and Fusion (PCF)

Introduction

The following explanation is based upon a patient without significant, pre-existing, major medical problems, such as poor heart condition, breathing problems or generalized poor health. In addition, the postoperative recovery described below is expected provided that the patient does not have any major postoperative complications, such as dural tear, blood clot, heart attack, stroke, pulmonary embolism or wound problems.

Prehospitalization

If you do not have any significant medical problems and you are younger than 40 years old, then Dr. Moore can usually clear you for the surgery. Otherwise, your own medical doctor will perform a thorough physical examination to medically clear you for the surgery. You will meet an anesthesiologist who will also review your health to make certain that you will be able to tolerate the surgery. You will be fitted for a hard collar (Miami J-collar or equivalent) at a brace shop and a soft collar from Dr. Moore's office. At the brace shop, ask the orthotist how to place and remove your collar. If you are fitted with a brace, then you must wear it all the time. Do not remove this brace. If you are not sure how to wear the collar or if it does not fit properly, then go back to the brace shop for additional instruction or an adjustment before the surgery.

Most importantly, you will meet with a case manager who will go over various options you have available regarding your discharge. Most patients after ACDF are discharged directly to home on the next day. Even if you are certain that you will be going directly home, it is always a good idea to have at least two other outside alternate places, such as a rehabilitation center or home of a friend, neighbor or family. Before the surgery, you can visit them and see if you like them. This cannot be done once you are in the hospital. The hospital where your surgery will take place may have its own rehabilitation center. But often times it is full and its availability varies.

Hospitalization

Your hospital stay is approximately 1 to 3 days depending upon the extent of your surgery and your progress. You are encouraged to become active as soon as possible while protecting your neck and allowing it to fuse.

Immediately after Surgery

1. An intravenous (IV) catheter is in your hand or arm.
2. A catheter may be inserted in your bladder so that urination is eased during the surgery. This is only done if the surgery is expected to be longer than 2-3 hours. You are likely to have a catheter in the operating room that is removed after the procedure.
3. Drains are inserted at the site of the surgery. One will be in the neck and another one will be in the pelvic graft site if your own bone plug is used. They are both removed next morning.
4. A mask or nasal tubing with oxygen is used to help you breathe.
5. TED hosiery (white elastic stockings) is worn on your legs to prevent blood clots.

What to Expect after Surgery

1. You are taken to the recovery room or PACU (post anesthesia care unit). You are observed here for 1 to 2 hours before being transferred to your room on the surgical ward.
2. You will be instructed on deep breathing exercises to prevent postoperative fevers, how to turn from side to side or sit up in bed, and how to stand and walk with assistance. Use the incentive spirometer (a plastic bottle with a floating ball) 10 times an hour while you are awake. This will prevent postoperative fevers.
3. For **ACDF** patients, you are expected to walk on the evening of the surgery with the assistance of a nurse. A physical therapist can assist you if needed.

4. You should make every effort to get out of bed, either by walking in the hallways or sitting upright in a chair as soon as possible.
5. You will wear the hard collar at all times for the first 6 weeks except when you shower. When showering, you will put on the soft collar that can get wet. You must immediately place the hard collar after you are done. **If you are fitted with a rigid brace, then you must not remove the brace for the entire first 6 weeks.** You may shower with a brace but cannot get the brace wet.
6. If the bladder catheter is left in over-night, it is routinely removed on the next day following the surgery.
7. For the patients on the patient controlled analgesia (see below), the pump is discontinued on the next day following the surgery. You will continue to receive pain medication in either a pill form or injections. Most patients will be on injections following the surgery.
8. For **ACCF**, you may have a breathing tube (**endotracheal tube**) through the mouth that is sometimes left over-night. This is to prevent breathing difficulty from the swelling in the neck while your airway is protected. This means you will be staying in the intensive care unit (ICU). The endotracheal tube is removed next morning.
9. For patients with difficult throat anatomy, severe neck deformity, or neurologic compromise, a **nasotracheal tube** will be placed preoperatively through the nose into the windpipe while a patient is awake. This is uncomfortable but it is absolutely necessary in order to avoid any neurologic deterioration from manipulating the neck and to safely secure an airway rather than traumatizing throat structures.

Pain Management

You should rely on pain medication for pain relief after the surgery. The medication will help you become active, participate in physical therapy and allow you to perform breathing exercises. You should not try to avoid requesting pain medication since you are expected to have some pain after a spinal surgery. If the medication is not strong enough or you are experiencing severe side effects, then do not hesitate to let a nurse or Dr. Moore know so that appropriate changes can be made. **All narcotics can cause some degree of constipation, nausea and even vomiting. These are their known side effects and are not considered allergies to the medications.**

The pain medications come in three forms. The first is a pill that is taken either every 4 to 6 hours or every 8 to 12 hours, depending on your response. The second is a **Morphine** injection (shot) given in the muscle at the same interval as above. It may be difficult to swallow a large pill after a cervical surgery. It is recommended that you either break the pill into smaller pieces or crush it and mix it with liquid or soft food, such as applesauce. Constant small sips of **ice chips, hard candy and Cepacol or other throat lozenges** can be helpful in relieving the sore throat

Discharge from the Hospital

Dr. Moore or your medical doctor will decide when you are ready to go home. Most patients are discharged directly to home. You may require staying in a short-term rehabilitation center if you are progressing slowly with activities of daily living or if you live alone. If you stay in the hospital's rehabilitation center, then your medical doctor will manage your daily issues. If you are discharged to an outside rehabilitation center, then that particular facility's physician will manage your medical needs.

You must wear your collar or brace at all times. If you have removable sutures, your first postoperative office visit will be between 2 to 2 1/2 weeks after the surgery for the suture removal. Your family member or a friend will need to drive you home.

Home Activity

1. **Wear your collar or brace for the first 6 weeks.**
2. You may want to show a family member or a friend how to place and remove the hard collar in case you need help for first two or three days. But you are expected to be able to do so independently prior to your discharge.
3. You can shower 5 days after the surgery. For patients with a hard collar, replace it with a soft collar only to shower. For the patients with a brace, **DO NOT GET THE BRACE WET AND DO NOT REMOVE THE BRACE.**
4. TED hosiery can be removed once you are home.
5. Use the incentive spirometer 10 times an hour while you are awake for the first 1 week.
6. Sleep on your side or on your back with support under the neck.

Activities

Let the pain be your guide. The most painful part of the body will be the donor site for the bone graft. This is usually on the left side of the pelvis called the anterior iliac crest. This is the bump immediately below your beltline. You are encouraged to be active as you can within what is comfortable for you. Sitting upright and walking as much as possible are recommended. Do not engage in any strenuous activities before your first postoperative follow-up.

Limitations

1. No driving for 6 weeks, but you can be a passenger. You may want to avoid jarring rides. As to when you can resume driving, there is no firm guideline since this is more of a legal issue than a medical one. You have to use your own judgment and no formal recommendation can be advised.
2. No bending at the waist, but you can bend with your knees.
3. No lifting more than 10 pounds (about a gallon of milk) for 6 weeks.
4. No vigorous activities or sports except for the walking as far as tolerated.
5. No sexual activity for 3 weeks. After 3 weeks, you may resume sexual activity if comfortable.

Return to Work

This depends on the extent of the surgery and your recovery. This issue is addressed during each subsequent postoperative office visit.

Pain Management at Home

An occasional increase in the neck pain, arm pain and/or numbness can occur after the surgery. This is attributed to the inflammation from the surgery when nerves are often irritated. The following treatments are recommended.

1. Ice the donor site for 20 minutes every 2 to 4 hours as tolerated.
2. Sit for at least one hour at a time as frequently as possible.
3. Reduce your activities for the next 2 days.
4. Take the pain medication prescribed by Dr. Moore. Extra strength Tylenol can be taken in between the pain medication to gradually decrease the narcotic medication.
5. **Do not take any anti-inflammatory medications since they can prevent fusion from occurring for the next 3 months. The examples are Ibuprofen, Motrin, Advil, Alleve, Lodine, Daypro, Relafen, Naprosyn, Naprelan, Voltaren, and Indocin. WHEN IN DOUBT, PLEASE CONTACT DR. MOORE BEFORE TAKING ANY MEDICATION.**
6. Refills are provided during the office hours **9:00 a.m.-4:00 p.m. Monday through Friday**. The office number is **335-4770**. Refills will not be given during the off hours or weekends or holidays. Please have the telephone number of the pharmacy available when you call. Do not wait until you are completely out of your pills. Call when you have less than 2 days worth. The pain medications are discontinued within the first 6 weeks.
7. All narcotic medications can cause constipation, and occasionally, nausea and vomiting. Drink plenty of water or prune juice and eat food with roughage (bran, oats, fruit, fiber). You will be given a prescription for pain medication. You can purchase Colace, which is a stool softener, as an over the counter medication at your pharmacy.. Take Colace twice a day while you are taking your pain medication on a regular basis. You may want to supplement your fiber intake with Metamucil (1 tablespoon in a glass of juice three times a day).

Incision Care

Your incision is usually closed with an absorbable suture that will need to be clipped on either end in 2 to 2 1/2 weeks. It is also covered with Steri-strips that will gradually peel off at either end. Do not peel them off until they are ready to come off. You can get the incision directly wet in a shower after 5 days. A simple 4" x 4" sterile dressing with tape is recommended so that the sutures will not catch on the clothing. Salves or ointments must not be applied.

Call Dr. Moore if any of the following occurs.

1. A temperature greater than 101.5° F for two separate readings at least 6 hours apart.

2. Drainage from incision.
3. An increase in pain, redness, or warmth or swelling around the incision.
4. Increased swelling in the ankles or feet.
5. Pain or swelling in the calves.
6. Difficulty controlling bowel movements or urination (voiding)
7. Persistent headache.

The office number is **335-4770**. This call can be made 24-hours a day. If Dr. Moore has performed your surgery, he will make every effort to call you back unless he is out of town. He shares call with other physicians and he may not be on call on the day you call for him. Nevertheless, you can request that Dr. Moore be paged if you feel that the matter is truly urgent and that only Dr. Moore can help you. This can be done even when he is personally not on call since his pager is on 24 hours a day, 7 days a week. For non-urgent matters, please allow Dr. Moore's partners to help you.

Closing

The purpose of the above information is to describe the hospital stay after your surgery in more detail. As much as I would like to do this, I cannot always do so effectively during your office visit. I hope that this information will alleviate some of the fears you and your family members may have about the postoperative recovery.

You deserve proper hospital care. Should you feel that such proper care is not being given, do not hesitate to talk to me about it. Often a request from a physician will have more influence on the care you receive. Please keep in mind that the nurses are working as hard as they can, managing up to 8 to 10 patients during their given work day. This also applied to the physical therapists, nursing assistants, unit clerks, dietary personnel and everyone else who plays a critical role in your care during the postoperative recovery phase. I would encourage you to be sensitive to their limitations yet assertive enough to ensure that your care is not compromised. I would appreciate any comment that you or your family member may have as to how I can improve my subsequent drafts. Grammatical or spelling corrections will be appreciated as well.

Sincerely,

Don K. Moore, M.D.