



## Patient Discharge Instructions: Posterior Cervical Fusion

### Surgical Technique

Posterior cervical fusion is a common surgical procedure to treat abnormal movement, pain, and narrowing in the cervical spine (neck). Its goal is to relieve pressure on the spinal cord and nerve roots and to help stabilize abnormal motion or neck instability. It is sometimes used in conjunction with other surgery, such as an ACDF (anterior cervical discectomy and fusion), to enable additional structural support and promote fusion of the bones in the neck.

It is called posterior (posterior means back) because the cervical spine is typically reached through an incision in the back of the neck. During surgery, the soft tissues and muscles of the neck are often separated using less-invasive techniques. The bone (called the lamina) overlying the spinal cord and canal is sometimes removed to relieve pressure off the spinal cord and nerve roots (thereby completing the decompression), although this is not always needed.

After removing any necessary bone (lamina) and performing microsurgery to decompress the spinal cord and nerves, small metal screws are placed into the bones that surround the spinal cord and attached to a metal rod. During this part of the surgery, chips of your own bone (taken during the decompression) or donor's bone is placed alongside the exposed bones and around the hardware to help promote new bone growth with the goal of achieving bony fusion where the vertebrae fuse (grow and join) together. Occasion- ally, we need to extend fusion (including the screws and rods) up to the back of the skull, or down to the up- per part of the thoracic spine (mid-back) depending on your specific condition. It usually takes a few months for the vertebrae to fuse completely, but can take up to a year or two.

Please visit [www.olympiadoctors.com](http://www.olympiadoctors.com) for more information.

### Before Surgery

- Seven days prior to surgery, please do not take any anti-inflammatory NSAID medications (Celebrex, Ibuprofen, Aleve, Naprosyn, Advil, Aspirin, etc.) as this could have adverse effects on your spinal fusion and increase your risk of bleeding during surgery.
- If you are taking any blood-thinning medications (Plavix, Coumadin, etc.), please talk to the prescribing doctor about when you can safely stop that medication before surgery to reduce your risk of bleeding. Usually, these medications are stopped anywhere from 3 - 7 days before surgery.
- Increase your strength and improve your recovery by walking at least 30 minutes a day before your procedure. Exercising before surgery will help you recover after your surgery.
- At least one week before surgery, eat healthy foods rich in carbohydrates and protein to fuel your body with the nutrients that it will need during and after surgery.
- Be aware that nicotine users have a significantly higher risk of surgical wound complications, such as healing and infection, as well as increased surgical bleeding. Nicotine disrupts many normal body functions, including nutrients and blood supplies. Nicotine use can impede bone formation that can result in higher failure rates due to the bones not fusing and healing. It is advised that any nicotine use be discontinued at least 4 weeks before surgery and at least 3-6 months following surgery. A complete discontinuation of all nicotine products is best and highly recommended.

### Day of Surgery

- Do not eat or drink anything after midnight the day before surgery. This also means nothing to drink the morning of surgery, except you may take your prescribed medications (e.g., blood pressure medications) with a sip of water if needed. Consult your surgeon or primary care doctor regarding insulin if you take it. Some hospitals are now allowing clear fluids until a few hours before surgery – please follow the directions of the individual hospital protocols (if you do not follow the individual hospital guidelines this may result in your surgery being canceled).
- Be early or on-time to check-in on the day of surgery so that surgery is not delayed or canceled.
- Bring your hospital surgical folder and any related paperwork (consents, etc.) to surgery.

- Bring a copy of all relevant imaging studies (CT, MRI, or x-rays) to surgery, even if your surgeon has already seen them in the clinic or may have a copy. Surgery may be canceled if your surgeon cannot view your radiographic images on the day of surgery.

### **After Surgery**

- 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.
- If you had ACDF, 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. 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.
- Some patients may experience worsening arm pain. These symptoms also should gradually improve with time.
- If your pain is poorly controlled, please reach out to your surgeon to discuss.

### **Activity Level**

- Walking is the best exercise after spine surgery because it strengthens the muscles, increases endurance, relieves stress, improves blood flow, keeps the bowels moving, and prevents fluid from building up in the lungs.
- Immediately after surgery, patients are encouraged to walk with gradually increased distances. The sooner patients can be active, the sooner he/she may be able to resume their routine.
- Do not lift more than 5 -10 pounds for several weeks after surgery. This restriction may be increased to approximately 20 pounds after 4 - 6 weeks. Your surgical team will help guide you with your specific lifting restrictions after 6 weeks.
- Avoid prolonged upright sitting or long car rides (more than 2 hours) for 2 - 4 weeks. It is recommended that patients do not sit for more than about 45 minutes without getting up and taking a 10-minute break and walking.
- You may drive as soon as it is comfortable to do so. You should not drive while under the influence of pain medications. It is not advised to drive if you are a cervical collar, as this can impair your ability to turn your head safely.
- Limited bending or twisting of the spine is advised. If physical therapy has been prescribed, you are not to do a range of motion, flexion, extension, or lateral bending exercises until cleared by your surgeon.
- Avoid activities with a potential for falling or physical contact until cleared by your surgeon.

### **Bracing**

- The use of a cervical neck collar depends upon numerous factors: the number of surgical levels, the surgeon, and the patient.
- If a collar is prescribed, follow your surgeon's directions. Most surgeons prefer the collar to be worn at all times and may be removed temporarily when eating, showering, or shaving/putting on make-up.
- A collar may be prescribed from anywhere from 4 weeks to 3 months.

### **Bandage**

- If a bandage is present, it should be changed the second day following surgery. A clean, dry gauze is recommended to be changed over the wound daily to protect the incision from clothing and collar (if used) to prevent breakdown. The use of a bandage is usually discontinued once your incision is fully healed. This may be different according to your surgeon.
- Depending on your surgeon's preference, you may have either Steri-Strips, a liquid skin adhesive (Dermabond), or external sutures over your incision.
- Steri-Strips: should be left intact until returning to the clinic for your postoperative follow-up visit 2 - 3 weeks following surgery.
- Liquid skin adhesive (Dermabond): should be left in place and will eventually fall off naturally over the next 10-14 days. Do not peel the glue off prematurely.
- External sutures: need to be removed 2 - 3 weeks after surgery.
- Do not use topical ointments on your incision unless approved or directed to do so explicitly by your surgeon.

### **Drain**

If you are discharged with a drain, you will need to record the daily drain output. You will be instructed prior to hospital discharge on drain care, including how to clean and empty it. Almost all drains are removed within 7 days after surgery, but individual cases vary. If you have a drain, please NOTIFY your surgeon's team of the drain output EVERY OTHER business day, unless instructed otherwise.

### **Bathing**

- We recommend waiting to shower until the third day after surgery.
- Try to limit showers to no more than 5 - 7 minutes.
- Do not scrub the incision directly. Instead, let the clean water run over the incision and then pat the incision dry.
- Do not soak in a bathtub, hot tub, or pool until you are cleared to do so by your surgeon.

## Diet

- Narcotic pain medications can be 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.
- Drink plenty of fluids, including Gatorade, or any kind of juice to stay adequately hydrated, prevent blood clots, and other problems.

## Pain Medications

- Do not take NSAID medications (Ibuprofen, Naprosyn, etc.) or Cox-2 inhibitors (i.e., Celebrex) for 3 - 6 months following surgery. These medications may delay or prevent proper fusion of the spine.
- Tylenol can be taken as needed.
- Stronger pain medications will be prescribed if Tylenol is inadequate. Avoid letting the pain get out of control before taking medication, or it will be less effective.
- Muscle relaxants are sometimes prescribed in combination with pain medications. Take as directed by your provider.
- ONI providers will NOT refill pain medications after hours: 5 pm on weekdays or anytime on the week- end.
- It is crucial to anticipate the need for medication refills so that they can be refilled with an adequate notification, which may take anywhere from 24 - 48 hours.

## Follow-up

Please call Olympia Neurological Institute (ONI) office (833-940-3733) and schedule your routine post-surgical visit for 7-14 days after surgery (if it is not already scheduled). We generally follow patient for at least 2 years after surgery, often longer. Your final pathology will be discussed at a follow-up visit. The duration of total follow-up with your surgeon depends on the type of surgery being performed.

***Please call your surgeon's office immediately with any problems or go to the emergency room if you notice:***

Drainage and/or increased pain at the incision site Fever greater than 100.4 degrees F

Difficulty swallowing

Difficulty breathing

Significant neck/wound swelling

Swelling and/or tenderness in your arms or legs New pain and/or weakness in the arms or legs Problem with controlling your bladder or bowels

## Other FAQs

***How long will I be in the hospital?*** This varies depending on the type of surgery performed.

Shorter surgeries sometimes go home the same day, whereas longer or more complicated surgeries may go home after 1-3 days in the hospital. Patients generally recover better and faster in the comfort of their own home. The sooner you go home, the lower your risk of 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. The return to physically demanding jobs will be at the discretion of your surgeon.

***When can I resume driving?*** Driving is acceptable, depending on the use of pain medication. We strongly advise against driving while taking narcotic pain medications following the surgery. Driving after surgery must be done carefully as we do not recommend excessive turning of the head and neck. We also advise against driving in a hard cervical collar. Talk to your doctor about potentially switching to a soft collar for driving short distances while you are still wearing your hard collar if need be.

***Will I need Physical Therapy?*** We usually recommend physical therapy and will refer you to a therapist at your first postoperative visit. We recommend starting physical therapy 6 weeks following surgery. Limited bending or twisting of the spine is advised. If physical therapy is prescribed, you are not to do a range of motion, flexion, extension, or lateral bending exercises until cleared by your surgeon. Refrain from high impact activities such as running, horseback riding, or any radical side-to-side motions. A good rule is 'If it hurts, don't do it.'

***Do I need antibiotic prophylaxis for dental procedures?*** We recommend avoiding routine dental procedures for 3 months following surgeries in which hardware is placed. This includes any dental work. 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 antibiotic prophylaxis. We generally do not make recommendations about the choice of antibiotic when using it for prophylaxis, and we usually defer this to your primary care physician or your dentist. After 3 months, prophylactic antibiotics are not recommended except for specific individuals with extenuating circumstances, such as patients who are at risk for infective endocarditis.