

## **Cervical Artificial Disc Replacement**

### **Preoperative, Postoperative and Home Recovery Guide**

#### **Introduction**

The purpose of this guide is to provide you and your family with information regarding your medical condition and planned surgery. This information is part of your medical "Informed Consent". Please read it and follow the advice carefully. You should retain the guide for future reference and bring it with you to office appointments and to the hospital for reference.

#### **Preparation for Surgery**

In preparation for surgery you will have blood drawn for analysis. You may also require an electrocardiogram (ECG), and a chest X-ray. These are scheduled prior to surgery. These tests performed before your scheduled surgery may allow your physician to identify particular health problems that could require further evaluation before anesthesia and surgery. Diagnostic imaging studies of the neck, such as CT or MRI scans, a bone scan, and possibly a myelogram, may already have been performed and provide your surgeon with anatomic detail for surgery. Other electrodiagnostic tests (EMG/NCV or SSEPs) may give additional, important information. You will have an opportunity to meet with a representative of the anesthesia staff prior to surgery to discuss the surgical anesthesia and its risks. Eat a light dinner before 7 p.m. on the evening before your surgery. Please, **do not** eat, drink, smoke, chew, or swallow **anything** after midnight the night before surgery except as directed by the hospital. The hospital will instruct you of the time and location where you should go before your surgery. Please, do not accept or follow any other directions unless you discuss it with our office.

#### **Family Waiting**

After surgery, Dr. Khachatryan will meet with your family in the surgical waiting room unless otherwise arranged. Please have a representative available in the waiting room to gather the family upon completion of surgery.

#### **After Your Operation**

##### **Pain**

After surgery you may experience pain in the region of the incision. Some neck and arm pain as well as tingling or numbness may also be present. Initially it may be of greater intensity than pre-operatively, but will subside over time as the healing process occurs. This discomfort is caused from surgical retraction of tissue as well as inflammation and swelling of the previously compressed nerves. Some patients experience a sore throat and swallowing difficulty after general anesthesia and surgery. This is from manipulation of tissue during surgery and the presence of the breathing tube for anesthesia. The sore throat usually will subside within a week. The swallowing difficulty may take longer. Using throat lozenges or lemon drops, sipping cool liquids, or sucking ice chips may soothe this pain.

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### **Use of Pain Medication**

Narcotic pain medication will be available for pain relief after surgery. Narcotics are very effective for pain relief but may cause other side effects. The possible effects vary among patients and may include: sleepiness, nausea, constipation, flushing, sweating, and occasionally euphoria or confused

feelings. If these occur notify your nurse. For your protection, you will receive narcotic medication only when you request it and if deemed medically appropriate by your physician.

### **Activity**

Feel free to move about in your bed. The nurse or therapist will assist you in getting out of bed for a short walk a few hours after surgery. You will be instructed to be up walking every 2 to 3 hours during the day and evening. As you recover, the nurse will allow you to do this independently once you are steady and feel comfortable. Early activity after surgery is extremely important to help prevent the complications of prolonged bed rest such as pneumonia and blood clots. It also promotes recovery, relieves muscle stiffness, allows for development of a well-organized scar, and improves your outlook. Elastic stockings (TED hoses) will be given to you immediately after surgery to prevent phlebitis (inflammation in your veins) in your legs. You may remove them after being discharged from the hospital once you are able to walk 3-4 times a day. Do not start any programs of exercise or physical therapy unless discussed with your doctor.

### **Diet**

Your diet will begin with clear liquids, and be advanced to your normal daily diet as soon as your condition permits. For the first few days after your neck surgery it may be more comfortable for you to consume soft foods that have the consistency of rice pudding or thick milk shake. Your IV will be removed as soon as we are reasonably certain it will no longer be required for medications and hydration.

### **Bowel and Bladder Function**

During surgery you may have a catheter (tube) in your bladder to monitor your urine output. Upon its removal you may feel a stinging sensation for 2 to 3 days, which is normal. Some patients may have difficulty urinating after surgery. If this occurs, notify your nurse who may assist you in voiding techniques. Occasionally this may require placing another catheter in your bladder. After surgery, constipation frequently occurs from inactivity and the side effects of pain medication. Stool softeners and laxatives will be available.

### **Respiratory Hygiene**

Deep breathing is very important after surgery to maintain lung expansion and reduce the risk of pneumonia. You will be provided with an incentive spirometer and instructed about its use. This device should be used every 15 to 30 minutes during your wakeful hours initially, then every 1 to 2 hours as your activity returns to normal. This device is yours to take home. Continue to use it at home for at least 1 week after your discharge. **Smoking is strictly forbidden.** There is clear evidence that smoking dramatically increases your risk of post-operative complications. There is also

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evidence that smoking adversely affects bone healing and nerve recovery. Second hand smoke also applies, so family members and friends should avoid smoking while around you.

### **Use of Your Neck Collar**

A soft cervical collar may be applied immediately following surgery. This collar is for comfort purposes, and may be removed for normal daily activities. The collar should fit snugly, yet comfortably. Do not “fight” the collar; cooperate with it. This will help with minimizing neck discomfort and skin irritation. After the first few weeks, if you do not have any significant neck discomfort, wearing the neck collar becomes optional for most activities of daily living, but we still recommend that you wear the neck collar while traveling in a car or an airplane.

### **Home Recovery**

#### **Follow-Up Appointment**

Patients are generally discharged from the hospital same day or by next morning after surgery. Please arrange a follow-up appointment with Dr. Khachatryan in two to three weeks from the date of surgery, unless otherwise instructed. At your follow-up visits, your neurologic function and incision will be examined, and x-rays will be obtained to check position of the artificial disc. If any scheduling difficulties arise, please contact our office.

#### **Incision Care**

After the 3<sup>rd</sup> post-operative day, if there is no drainage from your incision you are encouraged to shower daily. Do not soak your incision. Pat the incision dry. Do not apply any ointments or creams. If there is continued drainage from the incision after the 3<sup>rd</sup> postoperative day, you will need to change the dressing daily until drainage ceases. A supply will be provided upon discharge. Surgical tapes or Steri-strips may be present to aid in holding the skin edges together. Allow these to fall off on their own. In some cases, instead of surgical tape, skin glue will be used. It usually takes approximately 3-4 weeks for this glue to completely fall off on its own.

#### **Inflammation**

Please take your temperature every afternoon for the first week after you are discharged from the hospital. Call your surgeon if:

- your temperature taken by thermometer, is more than 101.5 degrees,
- your incision becomes reddened, swollen or any drainage occurs, or
- your pain increases out of anticipated parameters.

#### **Nutrition**

A well-balanced diet is necessary for good healing and recovery. This includes food from the four basic food groups: dairy products, meat, vegetables and fruit. We recommend that you supplement your diet with a multivitamin pill on a daily basis. Use of narcotic pain medication and prolonged rest may cause constipation. Drinking plenty of fluids and eating high fiber foods (whole grains, raw

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fruits and vegetables) will help regain normal bowel function. If you still have difficulty with a bowel movement, we recommend that you obtain over the counter Magnesium Citrate laxative and utilize this aid with evacuation of your bowels.

### **Home Pain and Medication**

When we surgically relieve pressure from an inflamed, damaged nerve it does not recover instantaneously. The surgical procedure does not heal the nerve, only the body is capable of that. The goal of surgery is to create the best possible environment for the body to heal itself and to prevent further damage. This will take a variable length of time depending on the duration and degree of nerve damage and the body's own healing abilities. Most of the healing occurs in the first few months. Pain, weakness, or numbness lasting more than six months will likely be permanent. Everyone has a different pain tolerance that will dictate the amount of pain medication required. A decreased dose and less frequent use of pain medication will occur during your recovery period. A gradual weaning of medications should begin as soon as possible, generally within 1 to 3 weeks. Conservative use of narcotic pain medication is advised. One should try non-narcotic medication, such as Tylenol and reserve narcotics for more severe pain.

**Narcotics will not be considered for refills on weekends, holidays, or after office hours.**

### **Home Activity**

Your recovery is an essential part of your surgical process. Following these guidelines and the instructions given to you by your physician and nurse will provide you with the best opportunity to return to your desired activities as completely as possible.

#### **The First Week**

- Early to bed, late to rise and frequent rest periods throughout the day. Get at least 8 hours of sleep each night. A disrupted sleep pattern is common after discharge from the hospital and will return to normal over time.
- You may not drive, but you may be driven, for short distances, using proper restraints such as shoulder and lap belts.
- No lifting of more than 4 pounds
- May climb stairs with hand rail
- Begin a daily walking program with 1 to 2 blocks initially; schedule a daily time and increase distance daily.
- Eat a regular, balanced diet.
- Take medications as prescribed, using narcotics as needed. You may take Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) such as Motrin, Advil, or Aspirin.
- Practice good neck posture and **wear your collar** for comfort reasons as instructed.

#### **The Second Week**

- Resume normal rising and retiring schedule, but continue to rest throughout the day.
- You may not drive.

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- No lifting of anything weighing more than 4 pounds.
- May climb stairs with hand rail
- Continue scheduled walking, increasing distance and frequency as able.
- May resume sexual relations when comfortable.
- Begin narcotic weaning as pain diminishes, relying mainly on non-narcotic medications

#### **The Third Week**

- Resume normal rising and retiring schedule, resting as needed.
- May resume light work around the home; lifting not to exceed 10 pounds.
- Continue scheduled walking.
- Follow-up in the office with your physician or physician assistant for further instructions.

#### **The Fourth Week**

- Resume normal rising and retiring schedule, resting as needed.
- May resume light work around the home; lifting not to exceed 10 pounds.
- Continue scheduled walking.

#### **Disability**

The initial period of recovery from cervical artificial disc surgery is 3 weeks. The time for complete healing averages 6 weeks, but may take longer depending on individual factors. Some patients may return to work sooner than others depending on their job, response to surgery, and ability to perform other lighter tasks in the work place. Patients who perform light capacity work or are employed in an office setting, may return to work in 1 to 2 weeks. Patients employed in heavy occupations such as construction, will be released back to work once healing has been confirmed during your follow-up visits. Physician approval is required prior to returning to work. If your employer requires documentation of your work status, our office will provide the necessary information to your employer or other concerned parties. All disability matters may be handled by contacting our office. A mild physical therapy program may be initiated after 6 weeks. If needed, more aggressive physical therapy regimen will be initiated on follow-up visits dependent on x-ray verification of the bone healing onto the surface of the disc implant.