The San Francisco Shoulder Elbow & Hand Clinic

Approach to Hand Surgery

Maximizing Your Recovery and Restoring Your Mobility
At SFSE&HC we believe that patient and family education is a critical component of providing excellent patient care. Therefore we designed this booklet to help guide you through your hand and wrist surgery experience from beginning to end.

Its objectives are three-fold:
1. To help prepare you for your surgical experience
2. To optimize your participation in the surgical processes
3. To prepare you for initiating and maximizing your recovery at home

This book is your general guide to your hand and wrist surgery, postoperative care and rehabilitation. However, not all patients have precisely the same conditions and needs. We may provide you with additional instructions for your procedure that should be used in place of information contained in this packet. At SFSE&HC, each patient is treated individually. Therefore, as your surgeon, hand therapist, or nurse may give you new instructions. We suggest that you make changes or additions to this book, according to your individual needs.

You will help achieve your optimal recovery from your surgery by becoming an active, engaged part of the SFSE&HC team before, during and after surgery. Of course, the long-range benefit of your surgery depends very much on the success of your continuing rehabilitation at home. We expect that you will continue to practice what our team has taught you long after you have left us.

This book structures your participation from this moment forward. Therefore it is imperative that you and your family or home care helper(s) read this book carefully now, and then refer to it at appropriate times during your surgery process.

At SFSE&CH we have learned that a patient who understands the entire course of their treatment will be less apprehensive of both the procedures and the outcome, and thus will be able to progress more rapidly and efficiently.

Sincerely,

Your SFSE&HC Team
Table of Contents:

Introduction ........................................................................................................................................... p. 2
Pre-Operative Checklist ......................................................................................................................... p. 4
Day of Surgery .......................................................................................................................................... p. 6
At Home After Surgery ......................................................................................................................... p. 8
Introduction To Regional Anesthesia ..................................................................................................... p. 11
Timeline for Recovery ............................................................................................................................ p. 12
Achieving Your Ultimate Goals ............................................................................................................. p. 12
Pre-Operative Checklist

So that your trip to the surgery center will go smoothly, please review the instructions on this checklist beforehand:

• **Pre-operative Screening**: Our team will inform you if Pre-Operative Screening is required prior to surgery. If so, within 30 days of your surgical procedure you will have some tests done as ordered by your primary care physician. They may include blood and urine tests, x-rays or an electrocardiogram (EKG). This pre-testing may be done at CPMC or an outside medical facility. If they are not done at CPMC, all test results should be faxed to our office for review as soon as available. (FAX#: 415 928 1035)

• Postoperative pain medications can often be written and dispensed prior to surgery. Discuss postoperative pain management with your surgeon especially if you have concerns or questions. Otherwise, prescriptions will be written on the day of surgery prior to discharge from the surgery center. Examples of postoperative pain medications include Vicodin, Norco, Percocet and Dilaudid.

• A Registered Nurse from the surgery center will call you on the day before your scheduled surgery (or on Friday, if scheduled for Monday) to tell you your time and place to arrive, to discuss specific preparations for surgery and to answer any questions you may have.

• Follow fasting instructions provided by the nurse during your telephone conference. Normally patients are not allowed to eat or drink *anything* after **12:00 midnight prior to surgery**. If you are taking medications for other conditions, you will be advised what to take on the morning of surgery with sips of water. If you are a diabetic, do not take any medication for your diabetes unless instructed by your medical physician. Bring your glucometer and medications with you on the day of surgery.

• Wear loose, comfortable casual clothing. Because you will leave with a bulky dressing, we recommend that you wear a loose-fitting short sleeve shirt. Bring a zippered or button-down jacket to wear over the top if it is cool.

• Arrange for your escort and transportation home. You cannot drive yourself home! You cannot use a taxi or car service for transportation. Your surgery will be cancelled unless this arrangement is clearly established.

• Leave all valuables at home, including jewelry and money.

• If possible, arrange for someone to stay with you at home or to be available for at least 48 hours to assist you with activities of daily living.

• Bring your healthcare insurance cards and a photo ID.
• Consider reviewing your hand therapy plan with your surgeon. Most patients will not begin therapy until 3-6 weeks following surgery but some begin sooner. You may find it easier to learn about the rehabilitation facilities, their location and hours and financial requirements before your surgery.

• FOR 7 DAYS BEFORE SURGERY stop taking aspirin or anything that contains aspirin and all anti-inflammatory medications (Aleve, Advil, Motrin, Ibuprofen, Voltarin, Naprosyn, Feldene). Please also discontinue nutritional supplements. Please check with your internist or cardiologist regarding any anticoagulants or antiplatelet agents (i.e. Coumadin, Plavix, or Aggrenox).

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Day of Surgery

Your surgery is going to be performed at the Presidio Surgery Center at 1635 Divisadero Street (near Sutter St). Take the elevator to the second floor where the receptionist will begin the check in process.

- The admitting assistants will complete your admission process and give you a I.D. bracelet. You and your family will remain in the waiting room area until you are called to the preoperative holding area. Your surgical site may be wiped with an antiseptic cloth at this time.

- In the holding area the nursing staff will greet you. Your clothes and personal possessions will be labeled and held by the staff during your procedure and returned to you once you are in the recovery room.

- Next, the nursing staff will take your temperature, pulse, respiration and blood pressure (and blood glucose level if you are diabetic).

- When you are ready for surgery, your surgical team will introduce themselves to you. These include the nurse, surgical assistant, anesthesiologist, and any assisting physicians. Each member of this group will have already reviewed your medical record in light of their own role in your surgery. They will discuss key aspects of your health as they relate to your surgery and explain the procedures. This is an excellent time for you to ask any last minute questions about your surgery that you may have thought of since your last contact with your physician.

- An intravenous infusion (IV) will be started by a nurse. The IV line provides a route for fluids, medications, and antibiotics, as necessary, and also for sedatives.

- Your surgeon will initial the site to be operated on with a special marker. At least two other team members will also confirm the site before surgery.

- Your anesthesiologist will see you prior to surgery in order to review your physical condition and discuss the anesthesia you will receive. Feel free to ask any questions you may have about your anesthesia. Many patients undergoing hand or wrist surgery receive regional anesthesia ('nerve block'). More details about regional anesthesia are discussed later in this packet.

- After being brought into the operating room, we will perform a surgical Time Out. At this time, the team focuses on double-checking all of the critical components before starting surgery: your identifying information, availability and sterility necessary implants, equipment and medications, and the surgical site.

- You will be mildly sedated (via the IV) to minimize pain from the local anesthetic injection that follows and to reduce possible anxiety and tension. The regional anesthetic is administered after the initial sedation and local injection. You will gradually lose feeling in your shoulder and upper arm, forearm and hand. To monitor this process, the anesthesiologist may ask you questions about how you feel.
• During surgery you may remain awake or be put to sleep. If awake, you may hear the operating team talk among themselves. You may answer questions about how you feel and you may talk if you wish. When surgery is complete you will move to the recovery room.

• The recovery room staff and your anesthesiologist will monitor your return to full awareness. When the recovery room nursing staff feels you are ready, they will begin the process of sending you home. You will likely go home with your arm still numb. This will allow you to get home comfortably before needing additional pain medicine. In order to be discharged to home, you must be able to:
  (1) Stand up and walk without feeling dizzy or lightheaded
  (2) Urinate without difficulty
  (3) Tolerate food and fluid
  (4) Manage your pain

When these criteria are met, your IV will be removed and you will be assisted in getting dressed. It is important to arrange for a ride home. You will not be able to drive yourself and you will not be allowed to take a taxi home without an adult escort.

The nurse will instruct you on putting on or taking off the sling and when to use it. You will need the sling for the duration of the nerve block, for comfort and for protection when out in the community. You may discontinue using it whenever you are comfortable doing so after your nerve block wears off.

You will also be given written instructions from your nurse to follow post-operatively. Prescriptions for pain medication will be provided if not done so already and you will be asked to confirm an appointment with your surgeon for 7-14 days after your surgery.

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At Home After Surgery

Many of the functional limitations that you are experiencing now, you will also experience post-operatively. So please plan accordingly. If you live alone, you may want to make arrangements for someone to help during your initial recovery.

Organize your daily routine so things are easily accessible, like cookware. Dressing: Put your operative arm in the sleeve first when you get dressed. When getting undressed, take your operative arm out last. Loose fitting, short-sleeved shirts are recommended.

Food Preparation: Make arrangements before your surgery if possible. Consider stocking your home with easily prepared and simple-to-eat foods before your surgery as you may not be able to drive for some time following your procedure and may not want to use your operated arm to help you eat.

Rest on the day of surgery. Resume your diet gradually. You may feel dizzy, light-headed, or sleepy for 12-24 hours after your surgery. This is normal. You should not drive, operate heavy machinery or electrical devices, drink any alcohol, or make important decisions for 24 hours. After general anesthesia, a sore throat is also normal.

PAIN CONTROL:
The operated hand (or finger) often swells in response to surgery. Healing will be much faster if the hand is elevated at all times for at least 48-72 hours. Keeping the fingers pointed towards the ceiling, while keeping the hand above the elbow, control this swelling best.

Apply ice packs to your hand/wrist for 20-30 minute intervals at least three times a day, or as instructed. This can often be a very effective means of pain control following surgery with very few negative side effects.

We will give you prescriptions for a short acting narcotic. In the event that the pain medication does not work, or you are experiencing unpleasant side effects, do not hesitate to call your our office. Try to avoid taking medication on an empty stomach as this can provoke nausea. You may get lightheaded after taking pain medication. Move slowly, as when getting up from a lying to standing position.

Narcotics also cause significant constipation. Please be aware of this and take over-the-counter medications or fiber supplements as needed. If you tend to get constipated easily, we can write a prescription for a stool softener in addition to your narcotic.

Remember, if you are taking pain medication; avoid alcoholic beverages and recreational drugs.

Do not take narcotic medication more often or in larger doses than prescribed.

Do not drive a car or operate heavy machinery when taking pain medications. They slow your reactions and make you an unsafe driver.
Narcotics can help with the immediate postoperative pain. However, it is our goal to get your pain controlled with non-narcotic medication as quickly as possible. Nevertheless, some patients will have persistent pain after surgery for which ongoing narcotic drugs maybe appropriate and effective. If you run out of medicine or you are finding the medicine ineffective please call the office to speak with your physician, or if it is after hours, the on call physician.

Some other things to know about refills of medications:

- Your request for non-narcotic medications can be filled by having your pharmacy fax your request to 415-928-1035 between the hours of 9:00am-4:00pm.
- Please monitor your medications, and allow for ample time for refilling your prescriptions. We strive to respond within 24 hours of a request. However, refill requests received on a Friday may not be authorized until the following Monday.
- Certain controlled medications cannot be phoned in to the pharmacy. A hand-carried prescription must be taken directly to the pharmacy. Please allow ample time to mail your prescriptions.

If you require narcotics for more than three (3) months after your surgery, we may request the assistance of a pain management specialist or refer you back to your primary care doctor for additional prescriptions. This provider will then prescribe the necessary pain medications.

**WOUND CARE:**
When you bathe or shower, cover the dressing with a plastic bag, closing the end with a rubber band or tape. We can also provide you with a waterproof sleeve. Keep the dressing clean and dry. Leave the dressing on until you come back to the office unless otherwise directed by your surgeon.

**OTHER CONCERNS:**
Nausea/Vomiting are an infrequent response to anesthesia. Drink clear liquids (broth, bouillon and water) until you feel better. If the vomiting lasts more the 12 hours, contact your surgeon or come to the Emergency Room.

Tingling/Burning in the arm or hand is caused by the local anesthesia wearing off. This sensation may last up to 6-8 hours and nothing needs to be done. If you had a nerve block, this may last up to 36 hours.

Stiffness is anticipated after surgery. In most cases, you should exercise each joint that is not splinted by gently bending and straightening them four times a day, starting the day after surgery.

**COMMON POST-OPERATIVE REACTIONS:**
Your body may react to surgery in one or more ways:

- Low-grade fever (101.5°F) for up to a week.
- Small amount of blood or fluid leaking from the surgical site.
- Bruising along forearm and/or fingers
- Swelling of the fingers

Please accept these reactions as normal.
WHEN TO CALL YOUR PHYSICIAN

- Fever of 101.5°F persists a few days after surgery.
- Progressively increasing pain. (Pain should steadily decrease following surgery.)
- Excessive bleeding or fluid coming from surgical site.
- Increased swelling and redness around the surgical site.
- Persistent nausea and vomiting.
- Decreased sensation in the arm after the block has worn off.
- Persistent headache
- Your anesthesia injection site is inflamed, redened, swollen or oozes

If you are unable to reach the on call physician and the symptoms persist, please go to the nearest hospital emergency room and contact the on call physician afterwards.

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Introduction to Regional Anesthesia

Prior to your surgery your anesthesiologist will see you to review your physical condition and to discuss the type of anesthesia you will receive. Many patients undergoing hand surgery receive regional anesthesia, or a 'nerve block'.

With the block, your shoulder, arm, elbow and hand will be numb. Regional anesthesia is often preferred over general anesthesia as general anesthesia produces total loss of sensation in the whole body instead of just the operative site and can also cause uncomfortable side effects, such as nausea, vomiting, sore throat and "hangover". It also requires a longer recovery time.

With regional anesthesia you will be more comfortable following surgery and can expect a smooth transition to your post-operative treatment of pain. It almost always leads to an earlier discharge from the surgery center and less need for narcotic pain medications after surgery.

THE PROCEDURE
Initial sedation: Before receiving the injection for regional anesthesia you will be mildly sedated (via the IV) to reduce possible anxiety and tension and to minimize pain from the application of the local anesthetic which proceeds the regional one.

Administration of local anesthetic: After initial sedation, a very small amount of a local anesthetic is injected at your lower neck where the regional anesthetic will be applied. The initial sedation minimizes the discomfort.

Administration of regional anesthesia: A regional anesthetic is injected through a very small, thin needle in your lower neck. Many anesthesiologists use an ultrasound machine to visualize the nerves during the procedure. Because of the initial sedation and local anesthetic, you will feel very little discomfort as this is done. You will gradually lose feeling in the shoulder and upper arm, forearm and hand.

Your recovery: In the recovery room your anesthesiologist and the recovery room team will monitor your safe transition from effects of anesthesia to readiness to go home. Because the level of sedation and anesthesia are kept to the minimum, you will awaken soon after surgery. However, the anesthetic effect in your arm usually dissipates over a period of about 12-24 hours. You may be discharged from the surgery center with the anesthetic still in effect. You will receive a prescription for pain medication that you should get filled as soon as possible at your local pharmacy.

Don't try to "tough it out" with pain: Take your pain medication before the pain becomes severe. Start the pain medication before the block wears off completely. Most patients experience some “pins and needles” as the block begins to wear off. This is a good time to take your first dose of pain medication. You will rest more comfortably and have a smoother recovery if you stay ahead of the pain.
Timeline for Recovery

While not true for all patients, many will follow a similar path during their recovery from surgery.

Weeks 1 and 2: We will work to get your pain under control, minimize swelling and protect your surgery. You will be able to use your arm for tasks like typing; however you will likely need help around the house. You will not be allowed to drive while in your sling or on narcotic pain medication. We will see you back in the office for your first post op visit during this time. Sutures are often removed at this initial visit. We will remove your postoperative dressing/splint and often fit you with a removable splint or place you into a fiberglass cast.

Weeks 3-6: Depending on your surgery, we may begin hand therapy during this period. We will work to get you off of any narcotic pain medicine prescribed at the time of surgery. At the end of this time we usually will see you back in the office for your second visit.

Week 7-12: During hand therapy, you will be instructed to work largely on range of motion, strengthening will come later. Depending on your surgery, no heavy lifting during this phase of recovery.

Week 12 and beyond: At this point most patients are working on functional activities in therapy or have discontinued it as they have reached their goals. Most patients will reach 80-90% of their final improvements by 6 months after surgery.

Achieving Your Ultimate Goals

You are well aware of the impact that your hand has on your life. This may have been occupational and/or recreational. But now that your hand has been repaired and rehabilitation has begun, we suggest you focus on these thoughts:

Your surgery will serve you well, if you work hard to restore and maintain your full range of motion and strength. When your formal hand therapy is completed, your therapist will give you an individualized exercise program that can be performed at home or at the gym. He/she will also point out which exercise equipment can be most helpful in achieving your personal goals. In addition, modifications of your current exercise regime may be suggested.

A staged conditioning program, which offers progressive improvement in function and endurance, is critical to reaching your goals. In other words, a graduated program of increasingly challenging activities will help you achieve success. Ergonomic changes and adaptive devices at home or work can be crucial to a safe and speedy recovery. Your surgeon and therapist can help design a custom rehabilitation program for you.