

The San Francisco Shoulder Elbow & Hand Clinic

Approach to Shoulder 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 shoulder surgery experience from beginning to end.

Its objectives are three-fold:

- 1. To help prepare you for your surgical and hospital experience.
- 2. To optimize your participation in the shoulder surgical processes while in the hospital.
- 3. To prepare you for initiating and maximizing your recovery at home.

SFSE&HC in partnership with CPMC performs hundreds of shoulder procedures each year. This enables us to have "Shoulder Teams" consisting of our surgeons, anesthesiologists, fellows, registered nurses, physical therapists and their assistants, and researchers. These teams are at the forefront of research, surgical techniques, rehabilitation techniques and nursing care for shoulder injuries.

In an atmosphere that nurtures your well-being, your shoulder team will employ the best technological and educational strategies appropriate for your individual shoulder with the goal of returning you to your pre-injury activity level as quickly and safely as possible.

This book is your team's general guide to your shoulder surgery, postoperative care and rehabilitation. However, not all shoulder 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 more general packet. At SFSE&HC, each shoulder surgery patient is treated individually.

Therefore as your surgeon, physical therapist, or nurse 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 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 shoulder surgery processes.

At SFSE&CH we have learned that a patient who understands the entire course of their shoulder 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

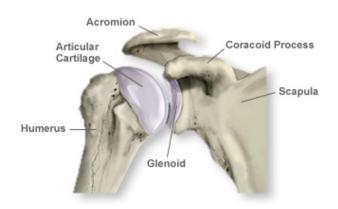


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Shoulder Anatomy - Your Shoulder Joint



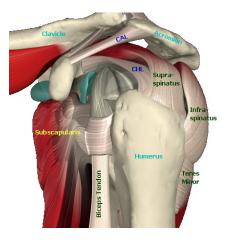
The shoulder joint may be described as a "ball and socket". However, it is a large ball and a relatively small socket. This allows the shoulder to provide the wide range of motion required to perform many athletic activities, such as throwing, swimming, serving a tennis ball, and functional movement in many directions.

The shoulder is made up of three bones. The "ball" component is made up of the head of the humerus (upper arm bone). The "socket"

component, called the glenoid, is made up of the outer portion of the scapula, commonly called the shoulder blade. The third bone is the clavicle or collarbone. The labrum is a rim

of cartilage on the socket that helps stabilize the joint. The stability of the shoulder joint mainly depends on the capsule, a strong envelope tissue surrounding the joint (not shown), ligaments connecting bones in the shoulder joint, tendons that attach muscles to bones, and the muscles themselves which initiate and control the position and activity of the joint.

Contributing to stability of the shoulder is the rotator cuff. The cuff formed of tendons attaches to the humerus and their four major muscles, which drape over the shoulder joint. The large muscles, which attach to the scapula (shoulder blade) play a significant role in the normal function of the shoulder.



Obviously, the shoulder joint is so complex and possibilities for injury are so many that it cannot be fully explained here. Your physician will show and explain the specific nature of the disorder to your shoulder joint and then, how he or she will approach its repair.



Mechanism of Shoulder Injuries

Shoulder injuries can result from an acute traumatic event, genetic factors or from repetitive, overuse activities. Many repetitive overhead sporting activities, such as tennis, swimming, and baseball can result in injury to the capsule, ligaments and muscles that surround the shoulder joint. In addition, lifting weights too frequently or incorrectly can lead to a shoulder injury.

On the other hand, a single traumatic event, such as falling on an outstretched hand or a direct blow can result in injury. These injuries are common in contact sports and in sports with high-speed impacts like skiing. Immediate effects of these injuries can lead to pain, swelling, and instability of the shoulder.

Depending on the severity of the injury, the function of the injured arm can often be greatly compromised. Unfortunately some structures of the shoulder joint do not readily heal themselves. Even with treatment, such as physical therapy some of the symptoms or limitations may remain.

As with other joints, bracing is generally not a successful option. Therefore, without surgical intervention, many individuals are unable to participate in their desired sports or functional activities at the pre-injury level.

Untreated conditions can have other consequences. For example, chronic instability may result in subsequent damage to other structures of the shoulder leading to further pain. This may also result in limitation of movement. Finally, for some persons the shoulder injury may eventually lead to osteoarthritis.

Shoulder Arthritis:



In addition to acute traumatic injuries to the shoulder, degenerative conditions may develop over months to years that also limit mobility and function. These include arthritis, or loss of the normal cartilage surfaces on the humeral head and socket, and degenerative tendon tears. At times these conditions can both occur at the same time.

In order to improve the function of the shoulder and restore motion, replacing the surfaces of the shoulder joint can be the most

effective treatment to improve function and relieve pain. This can be accomplished by performing a shoulder arthroplasty, or shoulder replacement. The most common types of arthroplasty are total shoulder arthroplasty and reverse total shoulder arthroplasty.

In general, total shoulder arthroplasty consists of putting new surfaces on the socket and humeral head. Reverse total shoulder arthroplasty also allows for replacement of both surfaces, but does not rely on a functioning rotator cuff for motion or stability of the joint replacement. The decision about which shoulder replacement is right for you is a complicated one. We suggest that you discuss your options with your physician





Your Pre-Operative Checklist

So that your trip to the hospital/surgery center for surgery will go smoothly, please carry out all the instructions on this checklist before your entry into the hospital:

Pre-operative Screening: Within 30 days of your surgical procedure you will have some tests done, as ordered by your physician. They may include blood and urine tests, x-rays, and an electro-cardiogram. 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)

•	Obtain the cryotherapy (cold treatment) device if your surgeon recommends one
	Take notes here:

- Discuss pain management with your physician, if you have concerns or questions.
- Follow the pre-operative bathing instructions (in the next section)
- A Registered Nurse from the hospital or admissions 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 at CPMC/Presidio Surgery Center; to discuss your 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 it, 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 shoulder immobilizer, we recommend that you wear a loose-fitted button down shirt.
- Arrange for your escort and transportation home. You cannot drive yourself home! 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.
- Review your post-operative exercises. Practice them, if you can. If your surgeon has
 given you exercises to strengthen your shoulder before surgery, do them faithfully
 according to instructions.
- What arrangements for your physical therapy do you need to make? Review this with your surgeon. Most patients will not begin therapy until 3-6 weeks following



surgery. However, 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 (i.e.: Aleve, Advil, Motrin, Ibuprofen, Voltarin, Naprosyn, Feldene). In some cases we will prescribe Celebrex, which is a unique anti-inflammatory, and can be taken around the time of surgery. Please also discontinue nutritional supplements such as Vitamin E, Ginseng, Ginko Biloba, Garlic and Ginger. If you have questions, please contact your physician's office. Please check with your internist or cardiologist regarding any anticoagulants or antiplatelet agents (i.e. Coumadin, Plavix, or Aggrenox)



Preoperative Bathing/Shaving Instructions

Before surgery, you can play an important role in your own health. Because skin is not sterile, we need to be sure that your skin is as free of germs as possible before surgery. You can reduce the number of germs on your skin by carefully washing before surgery. Following these instructions will help you be sure that your skin is clean before surgery.

First: Please shave your axilla (armpit), front, back and top of the shoulder **7 days** prior to surgery. Do not shave again until after surgery.







<u>Second</u>: You will need to shower with a special soap called **chlorhexidine gluconate** (CHG)*. A common brand name for this soap is Hibiclens, but any brand is acceptable. The soap may come in a liquid form or in a scrub brush applicator. Either form is acceptable to use. Do not use the soap if you have a known allergy to chlorhexidine.

- 1. Shower or bathe with CHG the **two days before your surgery** and the **morning of your surgery**. Do not shave the area again.
- 2. Remove any body piercing jewelry prior to showering and leave it out until after your surgery.
- 3. With each shower or bath, wash your hair as usual with your normal shampoo **prior** to using the chlorhexidine wash.
- 4. Rinse your hair and body thoroughly after you shampoo your hair to remove the shampoo.
- 5. Then apply the CHG soap to your entire body ONLY FROM THE NECK DOWN. Do not use CHG near your eyes or ears. Wash thoroughly, paying special attention to the area where your surgery will be performed.
- 6. Turn water off to prevent rinsing the soap off too soon. Wash your body gently for five (5) minutes but do not scrub your skin too hard. Do not wash with your regular soap after CHG is used.
- 7. Turn the water back on and rinse your body thoroughly.
- 8. Pat yourself dry with a clean, soft towel.
- 9. Do not use lotion, powder, deodorant or perfume/aftershave of any kind on the skin after washing with CHG

PHARMACIES STOCKING CHG (HIBICLENS) ANTIBACTERIAL SOAP:

CHG soap can be purchased at most large pharmacies, including CVS, Rite Aid and Walgreens. Please call your pharmacy to be sure that they have CHG soap in stock.



Your Day of Surgery

If your surgery is scheduled at the main hospital, when you arrive at the main lobby, the receptionist at the information desk will direct you to the operating room floor where your shoulder surgery will be performed. Alternatively, if your surgery is going to be performed at the Presidio surgery center, you will take the elevator to the second floor where the receptionist will begin the check in process.

- There, the admitting assistants will complete your admission process and give you a I.D. bracelet. You and your family will remain in the ambulatory care area until you are called to the holding area. Your surgical area will then be wiped with an antiseptic cloth.
- In the holding area you will be greeted by the nursing staff. Your clothes and personal possessions will be labeled and held by the staff during your procedure and returned to you once you are in your room on the floor in the recovery room for ambulatory cases.
- Next, the nursing staff will take your temperature, pulse, respiration and blood pressure (all your vital signs).
- When you are ready for surgery, your surgical team will introduce themselves to you. These include the nurse, surgical assistant, anesthesiologist, and assisting physicians. Each member of this group will have already reviewed your medical record in light of their own role in your surgery. 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.
- Your surgeon will initial the shoulder to be operated on. At least two other team members will also confirm the site before surgery.
- 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 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.
- Regional anesthesia, frequently used for shoulder surgery, is fully reviewed in the next section. If you feel comfortable about anesthesia based on prior experience or knowledge, you may want to pass by those pages.
- Initial sedation: At the proper time in advance of your surgery, 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.
- Injection for regional anesthesia: The regional anesthetic is administered after the



initial sedation and local injection. You will gradually lose feeling in your shoulder and upper arm; however, your forearm and hand are often also affected. To monitor this process, the anesthesiologist may ask you questions about how you feel.

- In the operating room: During surgery you will be put to sleep. 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 to your inpatient room or home. Most of the patients undergoing an open shoulder procedure such as shoulder replacement or an open rotator cuff repair will stay in the hospital 1 or 2 nights after their procedure to help manage their pain and speed their recovery.

SPECIAL NOTE FOR PATIENTS GOING HOME ON THE DAY OF SURGERY:

Many of our patients undergoing an arthroscopic procedure or other less invasive surgery will have the opportunity to go home on the day of surgery. This is also known as ambulatory surgery.

Many of these procedures will also be done under a regional block. 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 from the recovery room must be able to:

- (1) Stand up and walk without feeling dizzy or lightheaded;
- (2) Urinate without difficulty;
- (3) Tolerate food and fluid (you will be offered food and drink because the staff knows how long you've been without); and
- (4) Manage your pain. As your regional anesthetic wears off you can anticipate some pain in your shoulder. However, the nursing staff will monitor this and provide you with pain medication to carry you over to home.

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 cab home.



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. Most patients undergoing shoulder surgery receive regional anesthesia, or nerve block, and a light general anesthetic.

With the block, your shoulder, arm, elbow and hand will be numb. This will allow you to receive less general anesthetic medication, allowing you to wake up more quickly and with less of a "hangover" and nausea. In some cases, the anesthesiologist will place a catheter next to the nerves so that the duration of the block is extended. This is usually reserved for cases that require immediate movement of the elbow or shoulder joint after surgery. Today, most of our ambulatory surgical procedures are carried out with the use of regional anesthesia. The alternative of general anesthesia without a block is rarely used, but sufficient for smaller operations.

Overview of regional anesthesia: These five terms help clarify how regional anesthesia relates to your shoulder operation:

Anesthesia: the partial, or total loss of sensation in a body area or the whole body.

Anesthetic: the agent (drug) that induces anesthesia.

General Anesthesia: When anesthesia is administered through a breathing tube that causes both the loss of sensation and consciousness.

Local anesthetic: an anesthetic applied directly to a specific location, providing anesthesia to that immediate area or to the region affected by that location.

Regional anesthetic: An anesthetic that produces anesthesia (loss of sensation) in the given region or area of your body containing the surgical site. The regional anesthetic is applied remotely in a specific location where it "blocks" a group of nerves that otherwise would carry sensations of pain from the anatomical location or region - the surgery site.

Regional anesthesia is preferred over general anesthesia alone as general anesthesia produces total loss of sensation in the whole body but also causes 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 hospital; thus its widespread use in ambulatory surgery.



Your regional anesthesia procedure

IV line inserted: Before administering any regional anesthetic it is necessary to have an intravenous (IV) line in place. Your IV line provides a route for fluids, medications, and antibiotics, as necessary, and for sedatives, including the one for your initial sedation.

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: The type of regional anesthetic most frequently used for shoulder procedures is called an interscalene block although a number of other blocks also provide excellent pain relief. An infraclavicular block is more commonly used for elbow procedures. A regional anesthetic is injected through a very small, thin needle in your lower neck. 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, but your forearm and hand are usually affected also.

After the application of the block, most of our patients will then have a very light general anesthetic. This will allow you to safely sleep during the procedure. With the regional block, much less medicine is needed and you will often awaken without a hang over.

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 or to the floor depending on the type of surgery that you had performed.

Transition to pain medication after regional anesthesia: Because the level of sedation and anesthesia are kept at the necessary minimum, you will awake soon after surgery. However, the anesthetic effect in your shoulder region usually dissipates over a period of about 5-18 hours. You may be discharged from the hospital with the anesthetic still in effect if you are going home. 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. You will rest more comfortably and be better able to carry on your assigned exercise program and other physical activities.



Post-Operative Program Before Going Home

When the staff and you feel you are ready, you will begin a series of activities, which will prepare you for going home. These activities are important preparation for your successful rehabilitation of your shoulder injury at home.

The nurse or occupational therapist will instruct you on putting on or taking off the sling or shoulder immobilizer and when to use it. Your doctor and the nature of the procedure that was performed will determine the total duration of time in your sling.

The nurse or therapist will assist you in getting up and advise you regarding safety precautions.

You may be given written instructions from your nurse to follow post-operatively. Prescriptions for pain medication will be provided (please see the next section for more details), and you will be asked to make an appointment with your physician 7-14 days after your surgery.

Using Cryotherapy During Rehabilitation

You may already know the value of applying "cold" to injuries. Cryotherapy, the use of cold to treat your shoulder surgery, is an important element of your post-operative care. It can help decrease pain, reduce swelling and inflammation. It may be implemented in the form of ice wrapped in bags or towels, commercial cold packs or compression cuffs. Begin using it as soon as possible after you arrive home. A common



misconception about cryotherapy is that it is used only during the initial post-operative phase. Actually, you will benefit from the use of cold therapy throughout your recovery. (Do not apply heat directly to your shoulder, as it may increase swelling and inflammation.)



At Home Post Op Instructions

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.

Some helpful hints: 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, button-down shirts are recommended. Food Preparation: Make arrangements before your surgery if possible. Consider stocking your home with easily prepared and eaten foods before your surgery as you may not be able to drive for some time following you procedure and may not want to use your operated arm to help you eat.

How long your recovery will take depends on your personal goals, your general physical condition, and the nature of your shoulder surgery. Many patients experience ups and down during recuperation, so don't be discouraged if this happens. The most critical period is the first few days and weeks, as you move toward resuming your goals.

Your physician and your physical therapist will guide you on your first follow-up visit, you may receive new and/or additional instructions.

- Do not drink alcoholic beverages or use recreational drugs when taking pain medications.
- Take pain medication 20-30 minutes before performing exercises, if needed.
- Do not drive a car or operate heavy machinery when taking pain medications and/or while you are wearing the shoulder immobilizer or sling. These can slow your reactions and make you an unsafe driver.

Common post-operative reactions:

As you might expect, your body will react to shoulder surgery in one or more ways:

- Low-grade fever (100.5°F) for a week.
- Small amount of blood or fluid leaking from the surgical site.
- Bruising along shoulder, upper arm, chest, even to your elbow.
- Swelling of the shoulder and upper arm extremity.
- Mild numbness close to the surgical site for 6-9 months.

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 on the same side as surgery after the block has worn off.
- Persistent headache
- Your anesthesia injection site is inflamed (reddened, swollen or oozes blood or fluid).

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

Pain Management at Home:

- 1. Apply your cryotherapy cuff if you have obtained one, or ice packs to your shoulder for 20-30 minute intervals every 2 hours, or as instructed by your physician. This can often be a very effective means of pain control following surgery with very few negative side effects. Continuous use of cryotherapy is ok once your block has completely worn off.
- 2. Take your pain medication as prescribed by your physician. Take it before the pain becomes <u>too</u> severe. In the days following your shoulder surgery it is likely that you will need to take medications to help control the pain in your shoulder. You will be given prescriptions for these medications prior to discharge from the surgery center or the hospital.

In general we will give you prescriptions for a short acting narcotic (Norco, Vicodin or Percocet), an anti-inflammatory (Naprosyn or Celebrex) and medications to help with constipation (Colace or Senna) and nausea (Zofran or Reglan). At times, the use of a longer acting narcotic is also recommended (Oxycontin). In the event that the pain medication does not work, or you are experiencing unpleasant side effects, do not hesitate to call your physician's 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. Take your pain medication 30-45 minutes before doing your exercises

(Remember, if you are taking pain medication, you should avoid alcoholic beverages.)

3. In general, 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 re-fill of medications:

- Your request for non-narcotic medications can be filled by having your pharmacy fax your request to <u>415-928-1035</u> 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.

Your Initial Home Activities

Your initial home activities are focused on: (1) proper care and management of the shoulder; (2) performing necessary exercises; and (3) becoming comfortable with your shoulder during this important post-operative period. Your physician may provide you with instructions that supplement, or change the ones listed here.

Surgical Site Care:

- 1. Keep surgical area clean. Do not put tight clothing over it.
- 2. Keep the dressing in place for the first 48 hours, but clean and change it if it gets wet, or as directed by your physician.
- 3. Your incision may have been closed with glue. Do not pick at the incision as this may result in the opening of the surgical site.
- 4. The dressing placed over your shoulder is water resistant. It is OK to take a shower, however if the dressing should become saturated it should be replaced. The dressing will be removed at your first post-operative visit with your physician or earlier as instructed by your doctor.
- 5. Your sutures (if there are any which need to be removed) will be removed during your first postoperative visit with your physician 7-14 days after the surgery.

SPECIAL NOTE FOR ARTHROSCOPY CASES: After 48 hours you may remove the post-operative dressing. Please place band-aids over each of the portal sites. You may shower with the band-aids in place. Please change the band-aids after showering.

Showering:

You may shower without your sling, keeping your operative arm across your body. Remember, DO NOT REACH for objects with your operative arm; keep it across your body! After the shower, you must put your sling back on. You have water resistant dressing over your incision(s) and you may shower right away, but please do not allow the dressings to become wet. Should they become wet it is best to replace the dressing.

When Sleeping Or Sitting:

- 1. Keep your shoulder in the immobilizer unless instructed otherwise by your physician.
- 2. Place a pillow under your forearm and behind your elbow for support. If you have a recliner you may find it more comfortable than lying flat in bed after shoulder surgery.



Time Line for Your Recovery

While not true for all patients, many will follow a similar plan during their recovery from surgery. In order to give you a sense of what is common following many shoulder surgeries we have outline a normal post-operative time line.

Weeks 1 and 2: We will work to get your pain under control, minimize swelling and protect your repair. You will be able to use your arm for tasks at the waist like typing and cutting food. However you will likely need help around the house. You will be in your sling except for prescribed exercises. You will not be allowed to drive while in your sling or on narcotic pain meds. We will see you back in the office for your first post op visit during this time.

Weeks 3-6: Depending on your surgery we may begin weaning your sling as early as 3 weeks or as late as 6. You will continue to work on the basic shoulder exercises at this time. 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: Your sling can be removed now. It may be necessary to wean your way out. Starting with your sling off around the house and then later having it off in public. Formal therapy often starts at this time if prescribed by your physician. You will be instructed to work largely on range of motion. Strengthening will come later. No heavy lifting during this phase of recovery.

Week 13-18: Patients can now start to strengthen under the supervision of a physical therapist. Many patients will complete their physical therapy.

Week 18 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.



Home Exercise Program

Without question, your speed of recovery to your normal, desired range of motion and shoulder strength will depend at least in part upon how faithfully you follow your assigned exercise program. For each individual shoulder surgical procedure, there will be several phases: immobilization to initiate healing and prevent damaging of your shoulder; restoring range of motion; developing shoulder/arm strength, and performing functional activities.

Your physician or physical therapist will initiate each phase at the proper time, on an individual basis. The most common post-operative exercises are illustrated here. You may perform all of these exercises unless told otherwise by your operating surgeon. In the process of performing these, do not apply resistance to your operated extremity. Also, do not lift anything heavier than a utensil until told otherwise.

Note: Your exercises should not cause progressive, increasing pain. If this occurs, discuss it with your therapist and alter your exercise program accordingly. (You can take pain medication 30-45 minutes before exercising to help cope with initial pain.)

□ Pendulum Exercises

- 1. Standing, bend at waist, let arm of repaired shoulder hang relaxed.
- 2. Keeping your arm relaxed, begin by swaying your whole body back and forth to cause the arm to swing gently.
- 3. Move the arm side-to-side and front to back.
- 4. Repeat, moving the body and arm in circular patterns, clockwise and counter clockwise.
- 5. Repeat ___times, ___ times per day.



☐ Gripping Exercise

- 1. Open and close your hand making a fist without moving your repaired shoulder. Your arm can be bent or straight.
- 2. Repeat ___times, ___ times per day.





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- 1. Standing or sitting with arms at your side:
- 2. Pinch your shoulder blades together.
- 3. Hold for _____seconds.
- 4. Repeat ___times, ___ times per day.



□ Forearm Pronation

- 1. With arm supported, elbow bent, palm down:
- 2. Use the hand opposite to the arm of the repaired shoulder to rotate its forearm, as shown.
- 3. Repeat ___times, ___ times per day



□ Forearm Supination

- 1. With arm supported, elbow bent, palm up:
- 2. Using the opposite hand, gently rotate forearm

of your repaired shoulder, as shown.

5. Repeat ___times, ___ times per day.



□ Wrist Extension

- 1. With elbow supported and palm down:
- 2. Extend the wrist, as shown.
- 5. Repeat ___times, ___ times per day.



□ Wrist Flexion

- 1. With elbow supported and palm down:
- 2. Flex wrist down, as shown.
- 5. Repeat ___times, ___ times per day





- □ Elbow Flexion/Extension
- 1. Lying down, place a small towel roll under the arm (just above the elbow) of your repaired shoulder.
- 2. Keeping your hand straight, gently bend the lower arm up and then straighten it out, doing a full range motion comfortably.

Your shoulder should be relaxed.

3. Repeat ___times, ___ times per day.







Pain Management

After shoulder surgery, there will be times when you experience general discomfort and intrusive pain, causing tension, stress, distraction and even anger. Therefore, it is important that you learn how to handle discomfort and pain without routinely resorting to pain medication. We suggest that you adopt the management approach to pain.

Start by acknowledging, rather than denying, your pain. Say to yourself, "Like it or not, it's here." Then deliberately take "time out" to manage the pain and minimize its effects. One way is with cryotherapy, discussed below. Another proven way is to use a relaxation technique, such as this: First assume a position, sitting or lying, in which you can relax.

Now breathe in slowly and deeply. Then, as you breath out, focus on relaxing individual parts of your body, such as your neck, back or extremities, which may be under tension.

Repeat this sequence, breathing slowly and rhythmically. Use a slow, paced count: "In, two, three;: Out, two, three." (It may help to try abdominal breathing, using your diaphragm.) Every time you breathe out, continue to focus on isolating and relaxing different parts of your body, including muscles. If you want, imagine you are in your own special place that is calming and relaxing for you, such as on a beach.

Within 10-20 minutes you will be totally relaxed. Pain will be localized and probably subsided. Your body will be free from the broad effects of pain and your mind will have drifted away from it. So end with a slow, deep breath and, as you breathe out say to yourself, "I'm relaxed, alert and ready to proceed." Then concentrate on staying that way. Once learned, this relaxation technique can "manage pain" effectively in a very short period of time. You can use it instead of medication virtually anywhere for years to come.

Use cryotherapy during rehabilitation and then for life.

Cryotherapy, the use of cold to treat your shoulder surgery, helps decrease pain, and reduce swelling and inflammation on an immediate basis. It may be implemented in the form of ice wrapped in bags or towels, compression cuffs, or commercial cold packs. Always have your cryotherapy device ready and know how and where in your home to use it. Be quick to use it when significant pain sets in. Also take time to develop a methodical way of using cryotherapy regularly throughout your recovery. Then make cryotherapy a life long tool for quick, near term relief of pain, swelling, or inflammation from any future event.



Frequently Asked Questions

Q: When should I start physical therapy?

Your home program <u>is</u> physical therapy, however, formal physical therapy will begin when your physician decides. Therapy usually begins 3-6 weeks following surgery. Typically, patients begin working with a therapist 3 weeks after joint replacement surgery and 6 weeks after rotator cuff or instability surgery.

Q: When should I stop cryotherapy?

When you do not have any pain, inflammation or swelling. However, for some people, the answer is "never". After exercising or returning to activity, you may develop pain and inflammation. In this case, cryotherapy should be utilized immediately. Even when you do not have any immediate symptoms, you may utilize cryotherapy preventively to avoid any residual symptoms.

Q: When can I return to work or school?

This will vary with the type of surgical procedure you have. However, it is generally when you are comfortable and if your work or school does not require physical activity that will stress your shoulder. If it involves activity that may stress your shoulder, then explore this carefully with your doctor or physical therapist.

Q: How long must I wear the sling or immobilizer?

Once again, this will depend on the type of surgical procedure. Generally, after having an arthroscopic acromioplasty, the sling is only used for comfort or protection in public. On the other hand, following rotator cuff repair or shoulder replacement, the immobilization period is longer. This may be anywhere from 4 to 6 weeks. Ultimately, this will be decided by your doctor and may be determined by the extent of the procedure that has been done.

Q: What if I think I have re-injured my shoulder?

Do not wait to see if it will heal itself. Discuss this with your doctor right away. You may need to schedule an evaluation. If you scheduled to have a physical therapy appointment, discuss this with your therapist. Most re-injuries are best dealt with right away. Otherwise, call your physician as soon as possible.

Your doctor will make a formal analysis and give you options or recommend a specific action to follow. Note: By following your post-surgical program and wearing the immobilizer as instructed, re-injuries are uncommon.

Q: When can I return to sports specific activities?

This will be decided by your surgeon. Again, the type of surgical procedure will be a factor in this decision. Other factors that may be evaluated by your physical therapist include: normal range of motion and flexibility; normal strength; and lack of symptoms. Usually sports specific activities will be allowed after an acromioplasty between 8 and 12 weeks. After an arthroscopic stabilization, rotator cuff repair or total shoulder between 16 and 24 weeks.

A rotator cuff repair will vary greatly, depending on the extent and nature of the repair. Generally, it will be at least 4 months.



Achieving Your Ultimate Goals

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

Your shoulder surgery will serve you well, if you work hard to restore and maintain your full range of motion and strength. When your formal physical therapy is completed, your physical 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.

However, to achieve your ultimate goals you will need time to develop confidence in your shoulder. Therefore, a staged conditioning program, which offers progressive improvement in function of your shoulder, is critical to reaching your goals.

In other words, a graduated program of increasingly challenging activities will help you achieve success. For example, progressing from hitting groundstrokes in tennis to the more challenging overhead serve, or beginning swimming by doing the breaststroke and then progressing to the overhead crawl, or starting with chipping and putting before returning to hitting your driver.

Today is a good time to consider which staged activities will contribute most to your goals and to begin planning your involvement. By beginning to plan your individual, graduated program now, you will enable a faster return to using your shoulder confidently to regain the life style you want.



Notes on Your Progress and Goals:							