



Grant Garrigues, MD

Anatomic Total Shoulder Arthroplasty

## **Total Shoulder Arthroplasty**

### ***What is Osteoarthritis or Degenerative Joint Disease?***

Cartilage serves as a lubricated cushion between the bones of the joint. It normally has only a third the friction of polished ice on ice—very smooth. In osteoarthritis, the surface layer of cartilage breaks down, becomes rough, and wears away. This allows the bones under the cartilage to rub together painfully and eventually become deformed.

### ***What is a Total Shoulder Arthroplasty?***

A total shoulder arthroplasty (shoulder replacement) is a surgical procedure in which both parts of an arthritic joint are replaced with an artificial joint. The surface of the ball (humeral head) is replaced with metal and the socket (glenoid) is resurfaced with plastic. This artificial joint is designed to move like a normal, healthy joint.

### ***How do you replace the shoulder?***

The prosthesis will be placed through an incision down the front of the shoulder. The ball is usually held in place by a “scratch fit” with the bone, while the socket is held with bone cement.

### ***Length of Stay***

Depending on the surgery, the requirements of your insurance, and your overall medical health, your surgery can be done as an over-night stay or you may stay up to two nights. You will need to have someone to drive you home after you have been discharged.

### ***Anesthesia***

Patients usually have two types of anesthesia for this surgery. The first is general anesthesia, which means you are asleep. The second type of anesthesia is a nerve block. Your arm will be numb and will feel very strange. The nerve block will last about 12-14 hours. The anesthesiologist will speak to you on the day of surgery. The ultimate choice of anesthesia technique is up to you and your anesthesiologist.

### ***Incision***

You will have an incision down the front of your shoulder. After the incision has healed, it is usually not objectionable.

### ***Diet***

Surgery and the narcotic pain medications are very constipating. Your diet should include plenty of water, fiber, fresh fruits, and vegetables.

### ***Pain Control***

Pain is generally not severe after total shoulder arthroplasty, but can be difficult when you “rebound” after the block wears off. The key is to take over-the-counter Tylenol (assuming no liver issues), use your ice machine/pack, and take a narcotic pill at the *earliest* sign of the block wearing off to ease the transition from the block to pain pills. Narcotics are habit forming

and our goal is for you to be off of them completely by your first post-operative visit (10-14 days after surgery). Most patients are off completely (or nearly off) within a few days of surgery.

### ***Sling***

Your arm will be placed in a sling prior to leaving the operating room. You will wear the sling for the first 6 weeks—removing only to dress with your arm dangling straight down, shower, and perform your stretching exercises. You are not permitted to drive during this time.

### ***Dressings***

You will go home with gauze dressings on your shoulder. After 2 days you may remove the dressings. There may be steri strips over the incisions. The steri strips are to remain in place until they fall off on their own. You may shower 5 days after surgery. The incision CANNOT get wet prior to 5 days. Simply allow the water to wash over the site and then pat dry. Do not rub the incision. Make sure your axilla (armpit) is completely dry after showering. You may see blue sutures (stitches) or staples sticking out of the incision. These will be removed at your first postoperative visit 10-14 days after your surgery.

### ***Physical Therapy***

Before discharge you will be taught your home exercise program. For the three months of recovery you will do these gentle stretches at home or at work **five times per day**. The **STRETCHING EXERCISES ARE CRITICAL** and need to start right away. We discourage discharge to a nursing facility, home health care, or acute rehab facility if at all possible as patients who go home with outpatient physical therapy get significantly better results.

### ***Blood Thinners***

After surgery blood thinners, in most cases, Aspirin 325 mg per day, will be prescribed for four weeks. This is to prevent blood clots. If you are on a different blood thinner (Coumadin/Warfarin, Xarelto, Plavix, etc.) your blood thinner discharge instructions will be modified. Please confirm this prior to discharge. You should also not take Aspirin with Coumadin or with Xarelto and with Plavix the dose of Aspirin will be lowered to 81mg.

### ***Restrictions***

The most difficult and important part of the recovery is the first 6 weeks. For the first 2 weeks the sling will be removed only for 5x per day stretching, dressing, and undressing. After that, the sling can be removed when in the home/controlled environment for light activity with the elbow close to the side while passive stretching continues. Activities with the hand (typing, texting) are allowed.

### ***Recovery***

During the first 3-4 months you will have restrictions on your operative arm. No lifting for the first 6 weeks and then no lifting more than 5 lbs for the next 6 weeks. You may drive soon after the 6 week mark when you 1. Are out of the sling (6 weeks); 2. Are **NOT** taking narcotic pain medications; 3. Feel you could safely operate the vehicle.

90% of the recovery is completed by 3-4 months, depending on the amount of muscular atrophy you have prior to surgery.



In the picture above, the arrow points to the arthritic shoulder. Note the “bone on bone” appearance with bone spurs and arthritic cysts. Below, the metal stem of the shoulder replacement fits in the bone with a metal cap matched to the size of the patient to replace the “ball.” A polyethylene implant (clear on the x-ray) resurfaces the “socket.” These are the same materials used in total hip and knee replacements. The bone spurs have been removed.



## SOME HELPFUL HINTS TO THINK ABOUT PRIOR TO SURGERY

- Try to be observant of how you use the arm that will be operated on **BEFORE** surgery so that you can be a little more prepared to do things **AFTER** surgery.
- Do you have a recliner or can you borrow one? Many people find that sleeping in a recliner after surgery is more comfortable than the bed. If you don't have access to this, a "wedge pillow" can also work.
- Make sure you have a table placed on the side of the recliner of the un-operated arm so that you can reach things like a drink of water, a book etc. Is there a light there that you can turn on with the un-operated/good arm?
- For women: is your hair style one that can be done with one hand or that your partner can do?
- Make showers easier by having shower soap, shampoo, etc in pump bottles you can use one handed.
- Have stretchy pants you can pull up with one hand and shoes you can slip on.
- Loose fitting shirts with or without buttons, snaps, or zippers in the front.
- Have a large water bottle with a straw you can keep near your recliner. Drinking lots of water after surgery is not only healthy but helps keep you from getting constipated and prevents blood clots.
- Modify your cabinets, placing things you use frequently within easy reach below shoulder level.
- You will be coming out of surgery with your arm in a sling and with a cold pack device on your shoulder (which is yours to take home and good to use after you get home). You may also have a tiny tube in your neck/shoulder which provides anesthesia to your arm making it numb for several days. It might be taken out before you go home or you might be instructed to pull it out after you get home, which is very simple to do. Your arm will be numb as long as it is infusing. **When you feel the sensation in your arm returning, start taking the pain medications prescribed so that they are in your bloodstream when the block wears off so your pain remains under control.**
- The pain medication you will be prescribed after surgery is a narcotic and can cause constipation. You will be sent home on a stool softener but it is a good idea to take a gentle laxative as well while you are on the narcotics. Senokot or Miralax are good choices. Take as prescribed on the bottle. Drink plenty of water, get up and walk around frequently, and eat lots of fruits and vegetables as well to prevent constipation.
- You will be sent home on Aspirin 325mg once daily for 4 weeks so it is a good idea to purchase those prior to surgery. Also, Tylenol will be helpful to have to supplement the pain medication.
- You should not have dental work for 3 months after your surgery, so if there is anything pressing to take care of, try to do it before surgery.
- Antibiotic prophylaxis for dental procedures is controversial. If you have not had allergies or intolerances to antibiotics we recommend taking antibiotic pills prior to dental procedures for life.
- You will not be able to drive until you are 6 weeks past your surgery date, out of the sling altogether and you are off all narcotics. Uber/Lyft can be helpful and don't be afraid to ask for help from friends and neighbors.

- You will have the following return appointments after surgery:
  - 10 – 14 days (you will have your staples/stitches out if you have any)
  - 6 weeks after surgery (at this point – sling off and able to drive)
  - 3 months after surgery (at this point you will start strengthening with shoulder)
  - 6 months after surgery
  - 1 year after surgery
  - Yearly after that
- **You will have x-rays done at each of these visits.**

**Important numbers and email addresses:**

Dr Garrigues' office (Melissa Robertson) – 312-432-2880

The orthopaedic resident on call (for after hours and or weekend emergencies) – 312-432-2880, option 0 for the operator.

Surgery scheduler (Melissa Robertson) – 312-432-2880 or melissa.robertson@rushortho.com

Physician's Assistant (Elle Steele, PA-C) – garriguespractice@rushortho.com

Patient Information – Liftmyarm.com

Information on Dr. Garrigues - [www.rushortho.com/doctors/grant-garrigues](http://www.rushortho.com/doctors/grant-garrigues)

Twitter: @Grant\_Garrigues

Please send all FMLA paperwork to Melissa Robertson at 1611 W Harrison Street, Suite 300 Chicago, IL 60612, or you may fax to: 708-409-5179. Please make sure your name and date of birth are on all forms. Please allow 5-7 business days for paperwork to be completed. If you have questions about FMLA call Melissa Robertson at 312-432-2880.

## **COMMONLY ASKED QUESTIONS ABOUT TOTAL SHOULDER REPLACEMENT SURGERY**

### **LENGTH OF STAY**

Your surgery may be done as an overnight stay in a surgery center or in the hospital with 1-2 nights stay. Discharge time is ~10 AM. All rooms are private. We have multiple locations to accommodate our patients including Rush, Rush Oak Park, and multiple surgery centers in the Chicagoland area. The location of your surgery will be determined when scheduling. The facility will contact you the day prior to your scheduled surgery to go over your arrival instructions for the day of your surgery. This call may not take place until late afternoon. If you need to contact the surgical facility, check your surgical packet for contact information. For surgeries scheduled on a Monday, the surgical facility will contact you on the Friday before.

### **SLING USE**

You will be in a sling constantly for 2 weeks, even while sleeping. You may remove your sling for your daily exercises and to take a shower with your arm hanging at your side. After 2 weeks you will be allowed to come out of your sling while around the house doing light activities with your arm always in front of your body and with your elbow at your side. You will need to wear your sling while in public for protection. You should not reach with your elbow away from your side, lift anything of substantial weight, or push or pull with your operative arm for the first 6 weeks. After 6 weeks you may come out of your sling altogether.

### **PHYSICAL THERAPY**

You will begin physical therapy starting the next day after surgery and you will need to attend outpatient physical therapy 1- 2 times a week for an average of 3 months following surgery. For the first six weeks the therapy will be less frequent, then increase after the sling is removed. You may go to any physical therapy clinic in your insurance network that is conveniently located to your home. If you live near one of the Midwest Orthopaedics at Rush facilities, all of our locations provide physical therapy services for your convenience. We recommend this if possible as we have a very close working relationship with those therapists unless it is overly burdensome for you to come to these locations. If you are having physical therapy outside of the Midwest Orthopaedics at Rush network, you will be given a prescription and a protocol for your therapist to follow when you leave the surgical facility. Please try to find the best shoulder therapist at your chosen facility. We recommend that you schedule your physical therapy at your desired location prior to surgery for 4 – 6 days after surgery to assure a timely appointment once discharged from the hospital.

### **DRIVING**

You must be at least 6 weeks past your surgery date, out of your sling, and off all narcotic pain medication during the day to resume driving. During the first six weeks you will need to make arrangements for someone to drive you or use a rideshare service (Uber, Lyft) to therapy once per week.

### **DISCHARGE PLANS**

98% of patients are discharged home. Final plans for discharge are made by the discharge planner, hospital physical therapist and your surgical team following your surgery, and based on your particular needs as well as your insurance coverage.

**PAIN MEDICATION REFILLS**

Allow 48 hours for all pain medication refills. The final decision regarding refills is up to the surgeon or physician assistant. Please keep close track of your pain medication and allow sufficient time for refills.

**OUT OF WORK**

The length of time you will be out of work depends on the demands of your job, the rate of your recovery, fatigue, and how quickly you can discontinue narcotic pain medication. Those who perform sedentary work may return to work as soon as 6 weeks following surgery (perhaps as soon as 1-2 weeks if you can work from home or get a ride to work), while those in physically demanding jobs might not return until later following surgery.

**DISABILITY/FMLA PAPERWORK**

Please send all FMLA paperwork to Melissa Robertson at 1611 W Harrison Street, Suite 300 Chicago, IL 60612, or you may fax to: 708-409-5179. Please allow 5-7 business days for paperwork to be completed. Make sure you are clear regarding how you want the forms returned. Please note; there will be a \$20 fee for any update to disability/FMLA forms after 90 days from your surgical date. If you have questions about FMLA call Melissa Robertson at 312-432-2880. A form to facilitate faster handling of these requests is included on the following page. Please fill this out and include with your request. Please make sure your name and date of birth are on all forms.



## FMLA/ Disability Paperwork Questionnaire

Name : \_\_\_\_\_ Date: \_\_\_\_\_

Type of Surgery / Injury: \_\_\_\_\_

Date of Surgery (if applicable): \_\_\_\_\_

- What type of work do you do?

\_\_\_\_\_

- Are there any physically demanding aspects of your job? If so, explain.

\_\_\_\_\_

\_\_\_\_\_

- Can your job be modified to accommodate for post-operative restrictions if there are any?

\_\_\_\_\_

- How long do you plan to stay out of work after surgery?

\_\_\_\_\_

- Once your paperwork is complete:

\_\_\_\_\_ I will pick it up from the 1611 W. Harrison Office

\_\_\_\_\_ Please fax to \_\_\_\_\_ (or number on form)

\_\_\_\_\_ Please mail to \_\_\_\_\_

\_\_\_\_\_

**Please complete this form and return with any paperwork that needs to be completed.**

Dear Patient:

There are some medications that can interfere with surgery. Please check the following list and if you are taking any of these medications, follow the outlined recommendations. The anesthesia team will also review your medications during your pre-operative appointment. There may be other medications that they ask you to hold on the day of surgery. You may contact your pharmacist or our office with further questions.

- **COX 2 SPECIFIC ANTI-INFLAMMATORIES**

Celebrex, Bextra

**\*\*These medications DO NOT need to be discontinued.**

- **STEROIDAL MEDICATIONS**

Medrol Dose Pak, Prednisone

**\*\*Continue these medications, but be certain to mention you are on these during your preoperative appointment.**

- **ASPIRIN PRODUCTS/ NONSTEROIDAL ANTI-INFLAMMATORY MEDICATIONS**

Alka Seltzer, Anacin, Ascriptin, Aspergum, Baby aspirin, Bayer, BC Powder, Bufferin, Doan's Pills, Ecotrin, Excedrin, Empirin, Goody's Powder, Midol, Mobigesic, Norgesic, Pepto Bismol, Soma, Trigesic, Advil, Aleve, Anaprox, Aspirin, DayPro, Disalcid, Feldene, Ibuprofen, Lodine, Motrin, Naprosyn, Nuprin, Orudis, Relafen, Mobic, Meloxicam

**\*\*These medications need to be discontinued 7 days before surgery**

- **VITAMINS / SUPPLEMENTS**

Alpha-Omega Vitamins, Fish Oil, Vitamin E, Ginseng, Ginkgo biloba, Garlic supplements

**\*\*Discontinue 2 weeks prior to surgery**

- **ANTICOAGULATION MEDICATIONS (blood thinners)**

- Coumadin/Warfarin, Xarelto – contact the physician who prescribed this medication for you and let him/her know that you are scheduled for surgery and ask their recommendations. **You must also make sure we are aware that you are on this type medication.**
- Plavix, Pletal, Aggrenox – needs to be discontinued 10 days prior to surgery. Check with your prescribing physician prior to discontinuing this medication.

- **OTHER MEDICATIONS**

Tamoxifen, Hormone Replacement Therapy, Oral Contraceptive Pills

**\*\*These medications can increase your risk of blood clot. We recommend that you that you discontinue 2 weeks prior to surgery and restart 2 weeks after surgery. Please discuss these medications with your doctor.**

- **BIOLOGICS**

Adalimumab(Humira),Anakinra(Kineret),Etanercept(Enbrel),Infliximab(Remicade)

**\*\*These medications are generally used for inflammatory arthritis. Please make sure we are aware you are on these medications and an individualized plan will be discussed with your rheumatologist.**

## **DENTAL ANTIBIOTIC RECOMMENDATIONS**

You have undergone a total shoulder replacement procedure and should be careful about preventing infections anywhere in your body. There are instances when infection in one part of the body may cause bacteria to circulate in the blood, possibly resulting in infection at the site of your implant. Therefore, it is essential that your personal physician and your dentist be informed of your shoulder surgery.

It is important to maintain good dental hygiene and visit your dentist for routine care, whether you are experiencing a dental problem or not. Prompt treatment of infections, particularly of the teeth and gums, the skin, and the urinary tract is very important.

The recommendations of the American Dental Association and the American Academy of Orthopaedic Surgeons are conflicting and confusing. The bottom line is that:

- If you have not yet had a joint replacement and you have a known dental infection, this should be taken care of at least 6 weeks prior to the replacement surgery.
- If you have recently had a joint replacement and are planning an elective dental procedure (for a condition other than infection) we recommend waiting 3 months after the replacement procedure.
- If you have a history of allergies or intolerances to antibiotics we recommend NOT taking antibiotic pills prior to routine dental procedures (the exception would be for a dental infection for which antibiotics are recommended and will be prescribed by your dentist).
- Otherwise, we recommend antibiotic prophylaxis for
  - Dental extractions
  - Periodontal procedures
  - Dental implant placement
  - Prophylactic cleaning of teeth or implants where bleeding is anticipated

**\*These antibiotics should be taken one hour prior to your procedure.**

Please let us know when your procedure is scheduled and we will gladly call in your prescription.

## **Discharge Instructions after Total Shoulder Arthroplasty**

### **General**

- Use ice on the shoulder intermittently over the first 48 hours after surgery, then as needed.
- Caution: Narcotics are habit forming and have multiple side effects. Begin to taper your use as soon as you are able.

### **Activity**

- Wear sling at all times, removing it only to shower, dress/undress, or for any prescribed exercises. Do not drive while in your sling and/or on narcotic medications.
- When getting dressed/undressed, gently assist your elbow into a hanging position and lean over with your arm hanging down like a weight on a string if you need to access your armpit or slide on a shirt sleeve—do not raise your arm from your side against gravity.
- Move your fingers frequently to prevent swelling.
- Stay hydrated and walk frequently to avoid pneumonia, blood clots, and constipation.

### **Over the counter medications**

- To prevent constipation: Stool softener of choice. A prescription for Senokot has been provided, but use whatever keeps you regular (Miralax, Colace, Dulcolax or Senokot).
- For pain: Tylenol should be used (as long as you do not have liver disease) for pain.
- Blood thinner: Aspirin 325 mg daily for 4 weeks unless you are already on a different blood thinner (Coumadin, Xarelto, Iloprost, etc.) starting the day after your surgery.

### **Wound care**

- You may remove your dressing after two days, leave any steri-strips/sutures/staples in place. They will fall off on their own.
- You may shower 5 days after surgery. The incision CANNOT get wet prior to 5 days. Simply allow the water to wash over the site and then pat dry. Do not rub the incision. Make sure your axilla (armpit) is completely dry after showering.
- Wait at least 1 month after your surgery to submerge yourself in a pool.
- Keep incision out of direct sunlight until the scars fade (months).
- If garments irritate incision, feel free to cover with a band-aid or gauze.

### **Diet**

- Stay hydrated
- High fiber diet with extra fresh fruits and vegetables

### **Concerning Findings**

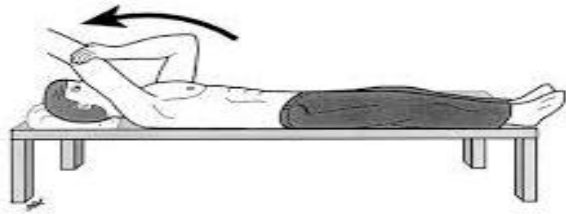
If you have any problems:

- During business hours call the office: 312.432.2880
- After hours call and ask for the orthopaedic resident on call: 312.432.2880 , option 0
- Concerning findings: Excessive redness of the incisions, Drainage for more than 4 days after surgery, Fever of more than 101.5° F

**You should see Dr. Garrigues or his PA 10-14 days after your surgery. If you do not have an appointment, please call 708-236-2701 to schedule**

## Home Range of Motion Exercises

- Perform passive, assisted forward flexion and external rotation (outward turning) exercises with the operative arm. You were taught these exercises prior to discharge. Both exercises should be done with the non-operative arm used as the "therapist arm" while the operative arm remains completely relaxed.
- 10 of each exercise should be done 5 times daily, work up to the max degrees



**Forward Flexion Maximum:** \_\_\_\_\_ deg. (if not specified, default is 140 °)

Lay flat on your back, completely relax your operative arm like a wet noodle, and grasp the wrist of the operative shoulder with your opposite hand. Using the power in your opposite arm, bring the stiff arm up only to the maximum indicated above (90 degrees indicates your arm pointed straight ahead). Start holding it for ten seconds and then work up to where you can hold it for a count of 30. Breathe slowly and deeply while the arm is moved. Repeat this stretch ten times. Repeat the entire cycle 5 times per day.



**External rotation Maximum:** \_\_\_\_\_ deg. (if not specified, default is 40 °)

External rotation is turning the arm out to the side while your elbow stays close to your body. It is best stretched while you are lying on your back. Hold a cane, yardstick, broom handle, or golf club in both hands. Bend both elbows to a right angle. With your operative arm completely relaxed, use steady, gentle force from your normal arm to rotate the hand of the stiff shoulder out away from your body. Continue the rotation only to the maximum indicated above (90 degrees indicates your arm pointed straight ahead). Holding it there for a count of 10. Repeat this exercise ten times. Repeat the entire cycle 5 times per day.