INTRODUCTION

Congratulations!
You have chosen a premier orthopaedic team to conduct your shoulder replacement!

The University of Florida Orthopaedic Surgery program first began in 1960 as a division of the Department of Surgery. In 1975, the Division of Orthopaedic Surgery achieved full departmental status. From our beginning in 1960, the University of Florida Orthopaedics and Rehabilitation program has earned a reputation for excellence in research, teaching and clinical care. Our commitment to patient health care motivates every aspect of our efforts, from the bedside, to the classroom, to the research lab. The foundation of our department is built on two outstanding institutions: The University of Florida, a top 20 public university and UF Health Shands Hospital, one of the Southeast’s premier health systems.

Your doctor has explained your procedure, and what to expect post-surgery. The purpose of this guide is to provide you with more information as to what to expect along the road to recovery, and what you can do to prevent any complications and maximize your outcomes. Although the health care team will assist you in your recovery, YOU AND YOUR FAMILY are the most important members of the team. We believe knowledge and preparation pre-operatively and post-operatively will make your recovery smoother. If you have questions along the way, be sure to ask them. We are here to help you achieve your goals and want you to be satisfied with your entire experience. Our goal is EXCELLENT service, from start to finish.

So, let’s begin.
TOTAL SHOULDER ARTHROPLASTY

When shoulder replacement surgery is performed, the ball is removed from the top of the humerus, or your upper arm bone, and replaced with a metal implant. This is shaped like a half-moon and attached to a stem inserted down the center of the arm bone. The socket portion of the joint, or your glenoid, is shaved clean and replaced with a plastic socket into the scapula or “shoulder blade.” These implants are shaped so that the shoulder joint will move in a way that is very similar to the way the joint moved when it was healthy.

REVERSE TOTAL SHOULDER ARTHROPLASTY

With the reverse shoulder prosthesis, the anatomy or structure of the healthy shoulder is reversed. The implant is designed so that the ball portion is attached to the scapula and the socket is placed at the upper end of the humerus. The reverse shoulder prosthesis is primarily utilized for patients with insufficient rotator cuff musculature.
ANATOMY

Ball and socket of healthy shoulder joint surfaces
In a healthy shoulder joint, the surfaces of these bones where the ball and socket rub together are very smooth and covered with a tough protective tissue called cartilage. Arthritis causes damage to the bone surfaces and cartilage. These damaged surfaces become rough and will become painful as they articulate, or rub together, on one another causing inflammation of the surrounding tissue.

Shoulder Arthritis
Arthritis can be treated non-operatively in the following ways:
- Anti-inflammatory medication
- Steroid injections
- Therapy for stretching and exercise
- Modalities such as ice, heat and topical anti-inflammatory creams

Surgery is another way to manage arthritis that has caused significant limitation in your normal daily activities. A shoulder arthroplasty surgery is one type of shoulder surgery. Your orthopaedic surgeon will help you to determine if this is the right avenue for you to follow. The surgeon will perform a comprehensive exam to include: a complete medical history, x-rays, assessment of your range of motion and level of daily function. In addition to other tests to show the extent of damage to the shoulder joint. Total shoulder joint replacement will be considered, if other non-operative options have not provided sufficient relief of your pain and disability. As with any surgical procedure, patients considering a total shoulder arthroplasty should understand the potential risks of surgery and understand that the goal of joint replacement is to alleviate arthritic pain. Patients generally find improved motion after surgery, as well as pain relief. The main goal is always pain relief first.

When is a reverse shoulder prosthesis used?
The reverse shoulder arthroplasty procedure is mainly used for patients with a poorly functioning or torn rotator cuff, as well as significant glenoid bone loss. Arthritis with a previous shoulder injury, such as a shoulder fracture, rotator cuff tear and/or failed previous shoulder surgeries may benefit from a reverse total shoulder arthroplasty. The reverse shoulder prosthesis allows the deltoid to hold the joint in place and to lift your upper arm. In addition, the screws in the socket allow improved socket fixation. Pain relief is a primary goal for this procedure.

WHAT SHOULD I BRING TO THE HOSPITAL?

- Sling that was fitted to you at your pre-operative appointment.
  - You must have your sling with you in the hospital - do not leave at home or in your car - you will need it post surgery!
- Large/loose fitting button-up shirt.
- Easy to pull-up undergarments/shorts/pants (i.e. athletic wear or pajamas).
- Good walking shoes with a back and rubber sole.
- List of current medications/allergies.
- Cane - if used for mobility prior to surgery (you will not be able to use a walker).
PREPARING FOR SURGERY

- Arrange for a caregiver to assist you at home for daily activities, sling positioning, exercises, medication management and meal preparation.
- This caregiver should be present at the hospital the morning after surgery for education and training on how to assist you at home.
- If you live alone or feel you need more assistance than your care coach can provide you, PLEASE notify your physician so that a social worker can help you with your planning.
- Arrange transportation home from hospital (you will not be able to drive until cleared by doctor, typically after 4-6 weeks).
- Remove all throw-rugs and tripping hazards in home environment. Have a plan for your pets.

ANESTHESIA AND YOU

- You will see an anesthesiologist and/or an anesthesia nurse practitioner before your surgery. He/she will review your medical history and perform a brief physical exam. The anesthesiologist will discuss with you the options you have for anesthesia during your surgery.
- Keep in mind your anesthesiologist, based on your history, physical exam, type of surgery and other factors, may suggest one particular anesthetic technique.
- The type of anesthesia used will be based on your anatomy, care team decision and your personal preference.
- The goal is to manage your pain. This is not a pain free procedure, so some level of pain post-operatively is expected.

Defense and Veterans Pain Rating Scale

0: No pain
1: Hardly notice pain
2: Notice pain, does not interfere with activities
3: Sometimes distresses me, can do usual activities
4: Distracts me, can do usual activities
5: Interrupts some activities
6: Hard to ignore, avoids usual activities
7: Focus on attention, prevents doing daily activities
8: Awful, hard to do anything
9: Can’t bear the pain, unable to do anything
10: As bad as it could be, nothing else matters
Cervical plexus block and cervical paravertebral block (shoulder and upper neck)
The most common nerve block used for shoulder replacement surgeries are cervical blocks. These blocks have revolutionized early shoulder mobility and pain control for shoulder replacement surgical procedures. Cervical blocks allow for post-operative movement of the shoulder the day of surgery, if the procedure allows for shoulder activity. It helps keep pain under control to improve your comfort and your ability to rest. Cervical block devices are portable and are taken home for continued pain control.

Paravertebral Block
Side effects from a nerve block are possible (see diagram below), but are often only temporary.

Interscalene may produce more side-effects
Side-effects may be related to:
- A temporary condition related to numbing the other nerves of the arm, shoulder and neck.
- Horner’s syndrome
  - Temporary condition with unequal pupils and sometimes slight eyelid droop.
- Mild hoarseness or shortness of breath.
- Feelings of a stuffy nose.

Blocks target space along spine (nerve root)
PATIENT INSTRUCTIONS: UPPER EXTREMITY CATHETERS

You may receive local anesthetic through a small tube (catheter) located near the nerves that go to your arm or shoulder. This medication will help manage your pain after surgery. The catheter has been placed by your anesthesiologist at the request of your surgeon.

About this technique of pain control:
The local anesthetic medicine usually will not take away all of your pain. It is expected that you will use some of the pain pills prescribed by your doctor while you have the catheter in place.

› Communication is essential to making this therapy work. Your anesthesiologist will call you the night after your surgery and each day you have the catheter in place. It is important we speak to you each day to make sure you are doing well and see if you need any adjustments to your infusion.

› You will receive about a teaspoon of local anesthetic continuously every hour. You can give yourself additional medicine by pushing the “bolus” button located on the front of the pump. You can press the bolus button as often as you want to, but it will only give you extra medicine once every 30-60 minutes. If you still have pain 20 minutes after pressing the bolus button, you may take your oral pain medication as prescribed.

› About 10 to 15 hours after surgery the intense numbness you felt initially wears off. You may experience some pain. If you feel pain press the bolus button on the front of your pump and take some of your pain medication. This will give you a small amount of additional local anesthetic medicine.

› After the dense nerve block goes away, most patients describe their fingers as feeling “fat.” You should be able to move your fingers and have some feeling in them, but your fingers may not feel normal to you while the catheter is in place. The thumb is usually the digit that feels the most numb for the longest time.
WHAT TO EXPECT DURING YOUR HOSPITAL STAY

BEFORE SURGERY
- Arrive 2 hours before your scheduled surgery time.
- Check in at Admissions with your driver’s license and insurance card.
- You will be taken to a pre-operative area to get ready for your procedure.
- Anesthesia will meet with you to discuss options for anesthesia. This could be a combination of general and regional anesthesia.
- If a nerve block is chosen, your anesthesiologist will discuss risks and benefits of this type of pain control.
- Please let your care team know if you have any bladder or prostate concerns.

DURING SURGERY
- Surgery time is between 2-3 hours.
- A urinary catheter may be placed after you are asleep to aide in urination during surgery. This catheter will be removed immediately after your surgery is complete. Catheter placement is surgeon and procedure dependent, not everyone will receive a catheter.
- You will not have memory of your procedure or feel your procedure during the operation.

AFTER SURGERY RECOVERY
- You will go to the PACU (Post-operative Anesthesia Care Unit or Recovery Room).
- You will be in the PACU while you await a bed on your primary nursing unit.
- You will likely have a nerve block, which is a device used after surgery for pain control.
- You will have decreased feeling in your operative arm and hand, which will resolve within 24 hours.
- You will be in a sling that was likely fitted to you at your pre-operative visit. The therapy team will check your sling for proper fit.

HOSPITAL UNIT/NURSING FLOOR
- You will be admitted to a private room on the nursing unit.
- Your pain will be managed with medications, ice, sling and positioning. The goal is to manage, not eliminate your pain post surgery. Pain at a 3 on the pain scale (page 4) is considered manageable.
- Pain is monitored closely. We want your pain managed, even when the nerve block has worn off.
- You will be walking/getting around with assistance.
- You will be drinking plenty of water and resume a regular diet.
YOUR CARE TEAM

Physical Therapy and Occupational Therapy will:
- Visit you for sessions on the day of surgery and throughout your stay.
- Check your sling for fit and comfort.
- Provide post-operative instructions and restrictions for shoulder movement.
- Assist you with getting out of bed, walking and dressing.
- Encourage you to be up for all of your meals.
- Teach you about safety with mobility and functional tasks.
- Encourage mobility with assistance to prevents slips, trips or falls.
- Instruct your care coach on how best to help you when you go home.
- Work collaboratively with nursing to get you up and out of bed, as much as possible.

| Nursing                                      | Will closely monitor your pain levels. |
|                                             | Will encourage you to drink fluids.    |
|                                             | Will assist you to the bathroom.       |
|                                             | Will round on you and provide important information to you and your coach regarding your surgery. |

| Physicians: Surgeon, Resident, Physician Assistant, Anesthesia Pain Service | Will round on you with the team to observe your progress. |
|                                                                           | Will make sure you are safe and ready for discharge.     |
|                                                                           | Will follow-up with you as an outpatient in their office in 2 weeks. |

| Case Manager | Will set-up any therapy services you need. |
|             | Will arrange any equipment you may need at home. |
|             | Will help you with any other concerns regarding discharge home. |

| Care Coach | Spouse, friend, sibling, significant other. |
|           | A vital link in your recovery. |
|           | An extra set of eyes, ears and hands to get you prepared for going home! |

TEAM MVP: CARE COACH

My care coach will help me:
- Get in and out of bed, a chair, a car.
- Get on and off the toilet.
- Prepare meals.
- Dress and bathe.
- Take me to my appointments. You cannot drive until cleared by your doctor.
- Will provide care after surgery, DAY AND NIGHT, for 1-2 weeks.

Note: My coach and I are aware that I cannot be home alone longer than 3 hrs at a time for 1-2 weeks.
ACUTE CARE DISCHARGE INSTRUCTIONS

TOTAL SHOULDER ARTHROPLASTY
Movement/Exercises:

- No active shoulder movement allowed!
- Passive shoulder range of motion with caregiver assistance will be reviewed.
- Avoid shoulder elevation/hike.
- Elbow assisted movement without shoulder movement, as instructed by therapist.
- Wrist/finger exercises with sling on.
- Squeeze the exercise ball for circulation and hand grasp.
- Wear your sling at all times except for exercises or getting dressed/hygiene, as instructed by therapist.
- The waist strap should be snug and secure to prevent excessive shoulder movement.

REVERSE TOTAL SHOULDER ARTHROPLASTY
Movement/Exercises:

- No shoulder movement allowed at all!
- Avoid shoulder elevation/hike.
- Elbow assisted movement without shoulder movement, as instructed by therapist.
- Wrist/finger exercises with sling on.
- Squeeze the exercise ball for circulation and hand grasp.
- Wear your sling at all times except for exercises or getting dressed/hygiene, as instructed by therapist.
- The waist strap should be snug and secure to prevent excessive shoulder movement.
What's this?
An incentive spirometer is used to help prevent post-operative pneumonia. A nurse will show you how to use this device. Use the incentive spirometer 10 times per hour while awake.

What's this?
Compression pumps massage your calves to increase blood flow after surgery. Getting up with assistance and moving helps get the blood pumping as well!
### GENERAL DISCHARGE INSTRUCTIONS

<table>
<thead>
<tr>
<th>Sling</th>
<th>Dressing</th>
<th>Sleeping</th>
<th>Hygiene</th>
<th>Assistance and rules for mobility</th>
<th>Swelling</th>
</tr>
</thead>
</table>
| - Wear sling at all times, even when sleeping.  
- You will wear your sling for 6 weeks.  
- Exception: when doing therapy and bathing. | - Move clothing to arm, not arm to clothing.  
- Wear clothes that are baggy or larger than normal.  
- Front button shirts are ideal, if you have them.  
- Occupational Therapy can instruct you on how to get dressed safely and with minimal discomfort. | - You may be more comfortable in a recliner for a few days.  
- You cannot use your operative shoulder to push up in or out of bed. Use your “good” arm.  
- Do not place pillows behind your upper arm or shoulder to prop your arm.  
- Place a pillow behind your elbow to prevent overstretched or poor alignment. | - Discuss bathing and your surgical dressing with your care team.  
- For the first 2 weeks, sponge bathe only if not cleared to shower by your surgeon.  
- Do not apply creams, ointments or powders on or near your surgical site.  
- If you have a waterproof dressing, your surgeon may let you shower—just ask!  
- Do not shave under your arms before the two week follow-up. Rashes and micro-cuts can occur, which could increase the risk of infection. | - You cannot use a walker or cane on your surgical side.  
- You cannot drive for 6 weeks.  
- You cannot carry groceries or a purse with your operative arm.  
- You cannot move or lift your arm out to the side.  
- You cannot initiate motion behind your back.  
- You cannot use your operative arm to push, pull or lift yourself. | - Ice may be used 6-8 times a day for 20 minutes at a time.  
- Do not use ice until nerve block is removed. |
DISCHARGE CONSIDERATIONS

- Typically you will be discharged home 1 day after surgery.
- Care coach support is vital.
- Your Insurance could dictate your follow-up therapy location and duration.
- Your care team may recommend extra therapy, if not ready to go directly home.
- Your physical health and assistance needed can play a role in need for additional services.
- You should not use a walker ideally for 3 months after shoulder surgery.
- Follow-up visits with your surgeon or associate providers will be needed to monitor your new joint at 2 weeks, 6 weeks, 12 weeks, 6 months and ongoing every 1-2 years.

Home with your coach is the desired discharge goal

- Home Health if needed for further teaching/home safety
- Equipment: Sling, Raised commode (3 in 1)
- Outpatient therapy typically begins after 2 week follow up with MD
- Home Exercise Program: 2 times a day with your care coach
- Other options: (Nursing or rehab facilities)
DIFFERENT TYPES OF POST-HOSPITAL CARE OPTIONS:

YOU NEED TO HAVE A GOOD SUPPORT SYSTEM AT HOME TO HAVE SHOULDER REPLACEMENT SURGERY. You will need the help of a care coach for at least 1 week. PLAN ON THIS. People heal faster and have less complications when they recover at home.

Home Care:
- Home care is a visit by a medical professional including a visit by a nurse, physical therapist or occupational therapist.
- It is typically not needed in the first few weeks following your surgery; some planned joint replacements receive some type of home care to assist with mobility, exercises, instructions and restrictions specific to your surgery post-operatively.

Outpatient Rehab:
- You will receive this therapy in an outpatient clinic.
- Most insurances cover this service, although you may have limited choices based on coverage.
- You will likely not need outpatient therapy directly following your surgery.
- However, you will very likely begin going to outpatient therapy after your two-week follow up appointment with your surgeon.

Inpatient Rehab Hospitals (PLEASE NOTE, Discharge to a facility is rare, home is the preferred discharge):
- To be admitted to these types of facilities, you need a recommendation from therapy services for skilled therapy intervention and medical need for three or more hours a day of therapy to qualify for inpatient rehabilitation.
- Inpatient rehabilitation centers are most like residing in the hospital.
- Most orthopaedic-planned joint replacements do not discharge to these types of facilities.
- Medicare, Medicaid and some private insurances cover this type of care. Many private insurances have a very limited benefit for this type of care.

Follow-up visits Post-surgery:
- Our team will schedule regular follow-up visits each time you come to see us. These appointments will be with your surgeon or his associate.
- These associate providers know your medical history and individual situation as well as your surgeon, so please feel confident that they will provide you with excellent care.
- You can expect to come back for follow-up visits at these intervals:
  - Two weeks
  - Six weeks
  - Twelve weeks
  - Six months
  - Ongoing care every one to two years, for life
  - It is important to attend the ongoing care appointments every one to two years to be sure your joint replacement is performing properly
- By conducting a regular physical exam and a review of x-rays, your care team can identify any problems that may be developing even though you may not have any physical symptoms.
## SUMMARY GUIDE TO ENHANCE YOUR EXPERIENCE

### Prior to Hospital Admission

- Gather all relevant information required for your hospital stay. This includes:
  - Lists of medications.
  - Lists of medication or food allergies.
  - Insurance card and driver's license.

- Packing List:
  - **Sling - YOU MUST BRING YOUR SLING WITH YOU TO THE HOSPITAL. Give it to your OR TEAM.**
  - Large button down shirt and for ladies, a front clasping bra that fits loosely.
  - Elastic waist pants or shorts.
  - Personal items including toiletries or any other comfort items.

- Have a plan for the care of children and pets that can possibly extend past one night. Most people discharge home the day after surgery, but people do sometimes require another night in the hospital.

- Watch pre-operative videos:
  - [www.ortho.ufl.edu/shoulder-arthroplasty](http://www.ortho.ufl.edu/shoulder-arthroplasty)

### During Hospital Admission

- You will have physical therapy and occupational therapy. The therapist will:
  - Check the comfort and fit of your sling.
  - Provide instructions and restrictions for shoulder movement.
  - Assist you with getting out of bed for the first time after surgery.
  - Provide important information to you and your care coach (your care coach needs to be present for this education).

- Goals for the afternoon on the day of surgery:
  - Work with Physical and Occupational therapy.
  - Sit up in a chair for all meals.
  - Walk in the hallway and to the bathroom with assistance.
  - Eat a meal and drink plenty of fluids.

- Tips for comfort following surgery:
  - You will likely experience decreased sensation to your surgical arm, including your fingers, after surgery. This is normal and should resolve within 24 hours.
  - A pillow can be placed under your elbow to keep your shoulder in proper alignment.
  - Communicate with your nurse regarding any pain you may experience.

- The day after Surgery:
  - Therapy will assist you with your home exercise program and techniques for dressing and safe discharge. It is important that your caregiver be present for these sessions.
  - Acute Pain Service: They will provide training for portable home catheter. It is important that your caregiver be present for this session.
  - Your nurse will review discharge instructions from your doctor prior to discharge.

### After Discharge from Hospital

- Remember to embrace family or caregiver support after discharge.
- Call Acute Pain Service as directed for instruction on removal of portable home catheter.
- Make follow-up appointment in two weeks with your physician.
- Make appointment to begin therapy 2 weeks post-operation.

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Thank you for choosing UF Health for your elective surgery. We are honored to participate in your medical care, and wish you years of comfortable mobility.
POST SURGERY ELBOW, WRIST AND HAND EXERCISES FOR ALL PATIENTS
Complete the following exercises 2-3 times a day for at least 10 repetitions each.

Exercise 1: Make a fist

Straighten all your fingers, curl your fingers to form a fist (without the thumb) and then straighten your hand and fingers back to the starting position and repeat. You may use an exercise ball for circulation and hand grasp during this exercise.

Exercise 2: Wrist flexion and extension

Begin with the forearm of your affected arm in the sling with your palm down. With fingers curled, move your wrist slowly in an up and down motion and in clockwise circles 10 times.

Exercise 3: Wrist Radial/Ulnar Deviation

Begin with the forearm of your affected arm in the sling with your palm facing your body. With your hand straight, move the wrist up and down, alternately. Your forearm should not move at all from its original position. Only your wrist should move.

Exercise 4: Pronation and Supination

Begin with the forearm of your affected arm in the sling with your palm down. Position your elbow close at your side. Turn your palm downward and then upward, alternating between these two positions.

Exercise 5: Assisted elbow flexion and extension

Bend your elbow up until a stretch is felt then down along your stomach to straighten your elbow. You may need assistance from a caregiver/family member.
SLING WEAR & CARE

SLING WEAR – ABDUCTOR PILLOW SLING
FOR SHOULDER SURGERIES

Wear sling at all times or as instructed by therapist

- Elbow should be as far back into the sling pocket as possible.
- Important that neck strap is not too tight to prevent discomfort.
- Waist strap should be snug and may need to be adjusted for standing or walking.
SLING AND SWATHE

**Front**

Always apply sling and swathe on top of clothing. Elbow should sit as far into the pocket as possible for proper fit.

Sling pouch should end between mid-palm and wrist to avoid possible nerve injury. Place thumb comfortably resting in thumb loop only during ambulation. Do not keep thumb in thumb loop while at rest.

**Back**

Position neck strap so you will be able to reach and self-adjust for comfort. A small towel or pillow case can provide a barrier between the skin and Velcro straps at the neck, if needed.

Apply waist strap within reach of non-operative arm, as shown in the picture above, so that you will be able to self-adjust for comfort.
HOME PROGRAM FOR ANATOMICAL OR TOTAL SHOULDER SURGERIES ONLY
- CAREGIVER MUST ASSIST

Phase I (0-4 weeks post-operative)

- Use heat before exercises.
- Use ice pack after exercises and up to 6-8 times per day.
- Sleeping - reclined may be the most comfortable with a small pillow or towel positioned under the elbow only. Do not put a pillow under your shoulder.
- No pushing up from bed or chair with the surgical arm/hand.
- Be careful not to overuse your surgical hand. Overuse can cause discomfort in the shoulder (perform exercises as instructed to maintain motion in your hand, wrist and elbow as instructed).

Exercises as instructed by your physician /therapist

1. Pendulum/Codmans exercise (____ x ____ x / day)

   Use uninvolved arm to support body while bending over sturdy table. Let the injured arm hang straight down. Move the injured arm back and forth and side to side, and then in circles (one direction then the other).
   Do each swing 10-20 times each direction

2. Passive External Rotation (____ x ____ x / day)

   Helper places hands at your wrist and above your elbow with the elbow bent at your side. Make sure the elbow stays in at your waist and then your care coach moves your hand out to the side.
   Hold 10 seconds and repeat 10 times

3. Passive Flexion (____ x ____ x / day)

   Helper places hands on your elbow and wrist and raises your arm up over your head, keeping the thumb up and the elbow somewhat bent.
   Hold 10 seconds and repeat 10 times