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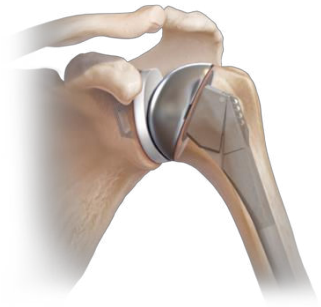
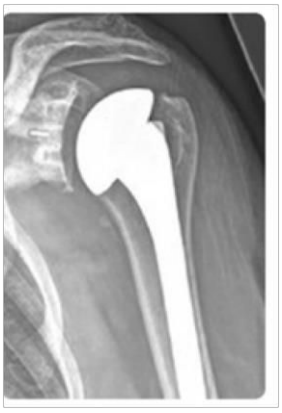
Total Shoulder Arthroplasty Information Packet

Total Shoulder Arthroplasty

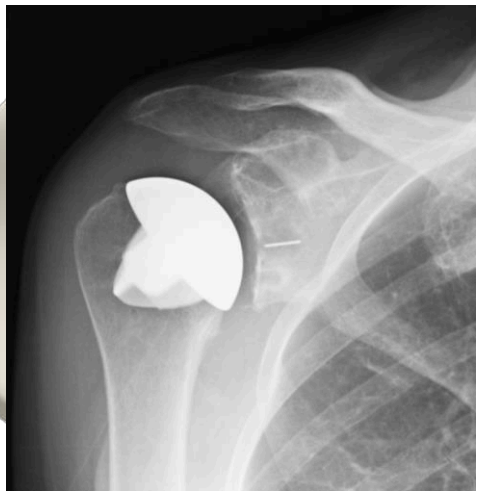
Total shoulder arthroplasty is a joint replacement surgery for a variety of painful shoulder joint conditions. The ball and socket portion of your shoulder will be replaced with metal and plastic parts that are similar in shape and size to your own shoulder anatomy. The socket portion of your shoulder is replaced with a plastic cup and the ball portion is replaced with a metal ball attached to a metal stem that is placed within the humerus. More recently surgeons are utilizing a less-invasive "stemless" humeral component.

Pictures of traditional shoulder replacement:





Pictures of stemless shoulder replacement:



Anatomy of the Shoulder:

The shoulder is made up of two joints, the acromioclavicular joint and the glenohumeral joint. The acromioclavicular joint is where the acromion, part of the shoulder blade (scapula) and the collar bone (clavicle) meet. The glenohumeral joint is where the ball (humeral head) and the socket (the glenoid) meet. The rotator cuff connects the humerus to the scapula and is made up of the tendons of four muscles, the supraspinatus, infraspinatus, teres minor and the subscapularis. The deltoid muscle is the muscle that forms the rounded curve of the shoulder. Tendons attach muscle to bone. Muscles in turn move bones by pulling on the tendons. The muscles of the rotator cuff keep the humerus tightly in the socket. The socket, or the glenoid, is shallow and flat. It is rimmed with soft tissue called the labrum that makes a deeper socket that molds to fit the humeral head. The joint capsule surrounds the shoulder joint. It is a fluid filled sac that lubricates the joint. It is made up of ligaments. Ligaments are soft tissue that holds bone to bone. Shoulder injuries can occur to any part of the shoulder.

Common Conditions that Require Total Shoulder Arthroplasty

Your surgeon may recommend total shoulder replacement for the following reasons:

- Osteoarthritis (degenerative joint disease)
- Rheumatoid arthritis
- Post-traumatic arthritis
- Avascular necrosis (osteonecrosis)
- A previous shoulder replacement that was not successful
- Failure of conservative treatments such as anti-inflammatories, cortisone injections, or physical therapy. Patients with a poorly functioning or torn rotator cuff, an axillary nerve injury, active shoulder infection or severe loss of bone stock on the socket or humerus are not candidates for shoulder replacement.

Expected Outcomes

Shoulder arthroplasty has been performed in the United States since the 1950's. At that time, it was used to treat severe shoulder fractures. In recent years it has become more common and is used for many painful shoulder conditions. There is good data to suggest that total shoulder arthroplasty will likely last 10-15 years. As materials and technology continues to evolve, as a profession we believe longevity of the current implants on the market likely will last well beyond 10 years but long-term data is still lacking. The rate limiting factor with total shoulder arthroplasty is your anatomy, namely your rotator cuff. If your rotator cuff tears with time, which is not uncommon as we age, this can lead to instability of the implant and eventual pain and failure. If this is to happen at some point, you may require a revision procedure to a reverse shoulder arthroplasty.

The major advantage of total shoulder arthroplasty over reverse shoulder arthroplasty is

slightly improved range of motion. However, there is some recent data to suggest that third generation reverse shoulder arthroplasty produces equivalent motion and outcomes to total shoulder arthroplasty. It is our preference however, to perform total shoulder arthroplasty in patients with higher activity demands and an intact rotator cuff. This is discussed with each patient on a case-by-case basis and a joint decision is made between surgeon and patient as to which surgery is best for that particular individuals needs. Most patients can be very active following a shoulder replacement. Golf, tennis, swimming and light yard work and gardening are allowed.

Preoperative Planning

Before your surgery it will be required to have preoperative testing. In some cases blood work, EKG (heart tracing), or a chest X-ray may be needed. If any of these tests are needed they will be scheduled for you and will be done during pre-testing when you meet with the anesthesia staff. If further testing is needed it will be arranged by the pretesting staff. If it has been some time since you have seen your primary care physician and you have a lot of medical problems, it would be best that you see your medical doctor before your pre-test date.

Your surgeon may also recommend advanced imaging studies such as an MRI or CT scan of the shoulder to assess the rotator cuff tendons and bone stock of the glenoid (socket) to determine if you are a candidate for a shoulder replacement and to help with surgical planning.

Your Surgery and Hospital Stay

You will arrive at the hospital approximately two hours before your scheduled surgery time. Procedures are performed on a “to follow” basis. Occasionally, a procedure scheduled ahead of yours may take longer than expected, so there may be some delay before your surgery. Regardless, it is important that you arrive on time. Sometimes an earlier procedure will cancel and we run ahead of schedule. You should not have anything to eat or drink after midnight the night before surgery. You may be advised to take some of your medications with a sip of water only. The anesthesia staff will discuss this with you at the time of your pre-testing. Upon arrival to the hospital you will go through a check-in process. At the appropriate time you will be brought into a pre-operative holding area. At this point the nurse will see you, review your records, and an IV will be started. A member of the anesthesia team will meet with you to discuss any anesthesia concerns and anesthetic options. Your surgery will be performed under general anesthesia (you will go to sleep.) In addition, the anesthesiologist may recommend a regional block if they think that you are a good candidate. This involves an injection of local anesthetic (numbing medicine) or placement of a catheter near the nerves at the base of the neck. These blocks are generally recommended to help control your pain following surgery. The anesthesiologist will discuss the risks of the block and the decision to perform this is a mutual decision between the patient and the anesthesiologist.

You can anticipate that your surgery will last approximately 2 hours, although this varies depending on the complexity of your surgery. If you have family members with you they will wait for you in the waiting room. Your doctor will speak with them after your surgical procedure to let them know that you are finished. During your surgery, family members should plan on remaining in or near the waiting area in order to be accessible at the completion of the procedure. Belongings will be stored in a locker in the pre-

operative area. Please leave valuables at home or with family.

When you wake from surgery you will be located in the post-operative recovery room. Unfortunately family members cannot be present with you at this time as there are many other patients and many nurses in this area. Once you have been stabilized and are comfortable, approximately 1-3 hours after surgery, you will be transferred to the nursing division and you will be able to see your family. Most rooms on the orthopedic floor are private.

With advancements in technique and pain control, some patients go home the same day after surgery. Others will stay overnight or longer, depending on pain control or medical issues. If you are planning to go to an extended care or rehab facility you may need to stay 3 nights due to insurance reasons. If you are planning to go to one of these facilities you may want to research facilities in your area prior to surgery. The social work staff will assist with placement once you are in the hospital.

You will have a dressing on your shoulder and your arm will be immobilized in a sling. You may also have a drain in place to collect fluid and blood from the surgery. This will be monitored closely during your hospital stay. It will be removed the morning you are discharged. Other equipment you can expect to have while hospitalized includes: an IV until you are eating, drinking and voiding normally, a cold therapy unit in the place of ice bags, compression and sequential stockings on your legs to prevent blood clots, possibly oxygen tubing according to your needs, and possibly a catheter if you are not able to urinate normally.

As previously noted, you may be given a regional block. This block usually wears off sometime in the night. Your nurse will be offering you pain medication every 4 hours. We recommend that you begin taking the medication when it is offered so that you will have medication in your system when the block wears off. In addition to the routine pain medication you can ask for additional pain medication in IV or pill form if needed. Please ask for additional pain medication when you first begin feeling uncomfortable. You will also have medication for nausea if needed.

Lab work or “blood work” may be done during your stay. By looking at these results decisions are made regarding your care. In order for the lab results to be ready for your doctor in the morning the staff will collect samples from you. This is normally done between 12am and 2am. We apologize for any inconvenience this may cause you.

Depending on your needs you may need a blood transfusion after your surgery. It is requested that you not donate blood for yourself prior to surgery. If a friend or family donated blood prior to your surgery, you will receive that blood. Otherwise you will receive blood from the blood bank. Your doctor or nurse can answer questions you may have about this.

A physical and/or occupational therapist will see you after your surgery to evaluate your needs. You will be doing some gentle range of motion for the first few weeks. The therapist will instruct you on these exercises. It is recommended to have a family member attend the therapy session.

General Information

- **Wound care**
    - After surgery, you will have a bandage on your wound that is to remain in place until your first post-op visit. This dressing is waterproof and you are permitted to shower after 72 hours post-op with the dressing in place. See bathing instructions below
    - DO NOT get into a pool, bathtub, spa, lake, or ocean until 1-month post-op
    - Please contact our office immediately if you notice any of the following as these could be signs of infection:
        - Significant wound drainage or bleeding, some bleeding on dressing post-op can be expected
        - Foul odor from the wound/dressing
        - Any significant redness or warmth around the wound/dressing
    - Please check your temperature if you begin to feel ill, warm, or have body chills. Contact our office immediately if your temperature is above 101 degrees or you think you may have an infection anywhere in your body. It is common to have a low temperature within the first week of surgery. Make sure to stay well hydrated as this will help minimize this
    - It is common to have swelling and/or bruising after surgery and is expected. The bruising may start out black-red-purple and change to a yellowish-green color over a few weeks. The bruising may go down the arm. You also may have swelling in your hand. This will go away with time; squeezing a ball or making a fist repeatedly will help with this
- **Blood clots**
    - Surgery may slow the blood flow in your legs, which rarely may result in a blood clot. If a clot does form, your leg will usually become swollen and painful. Walking regularly early after surgery can prevent blood clots as moving the ankle and toes frequently. You should additionally avoid crossing your legs in the initial post-op period
    - Please contact our office right away if you have any leg swelling, tenderness, pain, warmth or redness
    - Call 911 immediately if you begin to have any chest pain, trouble breathing, rapid breathing, sweating, or confusion as this is a sign that a blood clot may have moved to your lungs
- **Rehab diary**
    - Please keep track of therapy visits and exercises done at home. Please bring this diary to each clinic visit

Strategies for Independence with Activities of Daily Living

- **Upper body dressing**
    - Select loose-fitting clothing
    - Always dress operative arm first
    - Use nonoperative arm to pull shirt onto the operative arm, pulling the shirt as far up the arm as possible. Use the nonoperative arm to pull the shirt over your head or behind your back and down your body. The nonoperative arm goes into the shirt last
    - Always undress the operative arm last
    - Consider large shirts with buttons or zippers in the first few weeks following surgery or obtain sling specific shirts (www.slingshirt.com OR

www.reboundwear.com for shirts with snaps that are easy to wear/remove or search "post-operative shoulder surgery shirt" on Amazon)
    - Remember to keep your operative arm close to your body while assisting with buttoning or zippering
    - Females may consider wearing a camisole or tank top as an alternative to a bra following surgery. If a bra is preferred, consider sports bras that zip or close in the front or a strapless bra to avoid irritation at incision site
- **Lower body dressing**
    - Utilize your nonoperative arm to thread both feet into pants while sitting. Stand up to pull pants up past your hips using your nonoperative arm. When securing pants, the operative arm may assist, but be sure to keep it close to your body
    - Consider pants with elastic
- **Sling management**
    - Week 1-2: sling with abduction pillow at all times, removed for showering and dressing only.
    - Week 3-6: sling while out of home/uncontrolled environment, continue wearing while sleeping if patient is active sleeper. May remove sling at home for home exercises and when at rest and perform waist level activities in front of body with elbow at side:
        - Typing, eating utensils, washing face with elbow at side
        - No lifting, reaching, pushing or pulling anything heavier than cup of coffee with arm at side
        - No reaching to the side or behind the body/back
        - No using the arm to push up from a chair
    - After 6 weeks the sling can be discontinued entirely
    - Make sure your elbow remains at a 90° angle while in sling. If your hand becomes swollen, it may be a sign that your elbow is too straight and the elbow position is not 90°. Discuss additional options for edema control with your therapist
    - While in sling remember to move wrist and fingers, may remove intermittently throughout day to move elbow/wrist/fingers keeping arm at side
- **Eating**
    - After 2 weeks it is permitted to bend at the elbow and bring food to your mouth
    - Begin with foods that do not require cutting
- **Bathing**
    - You may shower after 72 hours post-op, the post-op dressing can get wet
    - Your arm comes out of the sling and rests at your side during the shower
    - Do not scrub the surgical site or dressing
    - To wash and clean the underarm of your surgical arm, bend at the waist and let the arm passively move away from your body as you bend forward, similar to pendulum exercises
    - No submerging under water in a bath, pool or hot tub until 4 weeks post-op
    - Consider purchasing a bath mat for prevention of falls while showering
- **Grooming**

    - Bend forward from your trunk, similar to pendulum exercises) to move your arm away from your body for activities such as bathing, deodorant, and shaving underarms
- **Toileting**
    - Use your nonoperative arm
    - Place toilet paper on nonoperative side
    - Consider using toileting aid
- **Sleeping**
    - Keep sling on when sleeping
    - It is preferred that you sleep on your back or in a semireclined position
    - While lying on your back, place a small pillow behind your operative arm so that it stays aligned with your body
    - Consider sleeping in a recliner if available
    - If you must sleep on your side, it is best to sleep on the nonoperative side, the abduction pillow can be removed but keep the sling on and prop the operative arm up on a stack of pillows in front of your body keeping it in a slight abducted position
- **Home management**
    - Consider preparing meals and freezing them prior to surgery
    - Temporarily move frequently used items from higher shelves to counter top level
- **Driving**
    - No driving until 6 weeks post-op
    - Start with low risk driving on local streets and progress to riskier freeway driving

Risks and Complications

The list below includes some of the common possible side effects from this surgery. Fortunately complications are very rare in your doctor's practice. Please note that this list includes some, but not all, of the possible side effects or complications. Complications may include complications from anesthesia, infection (very rare), nerve injury (extremely rare), blood vessel injury (extremely rare), bleeding (extremely rare), shoulder stiffness, failure of repair, failure to improve your symptoms as much as you had hoped, a stress fracture of the acromion bone where the deltoid originates (rare), a blood clot can form in your arms or legs and very rarely travel to your lungs, complex regional pain syndrome (a

Follow Up Appointment

Patients are seen in the office 10-14 days after surgery for wound and radiographic evaluation. If you have not been scheduled for a follow up, please call the office to set up an appointment at 702-990-2290. We will then schedule your second follow up appointment for approximately 4 to 5 weeks thereafter.