Total Shoulder Replacement

We want you to know as much as possible about your shoulder surgery. The information in this booklet will help explain the total shoulder surgery, recovery, and your rehabilitation.
# Total Shoulder Replacement

## TABLE OF CONTENTS

- Understanding Your Shoulder Joint ................................................................. 1
- Shoulder Replacement Components ................................................................. 2
- Helpful Tips ........................................................................................................ 3
- Care Agreement ................................................................................................. 3
- Getting Ready for Surgery ................................................................................... 4
- What Are The Risks of Shoulder Replacement? ............................................... 4
- Your Healthcare Team ......................................................................................... 5
- The Day of Surgery ............................................................................................. 6
- Surgery & Immediately After ............................................................................... 7
- Pain Control & Helping Circulation ..................................................................... 8
- Total Joint Center ............................................................................................... 9
- Recovery and Rehabilitation ............................................................................... 12
- Planning for Discharge ....................................................................................... 14
- Home Equipment ............................................................................................... 14
- Home Safety ....................................................................................................... 15
- When to Call ....................................................................................................... 15
- Daily Stretches After Shoulder Surgery ............................................................ 16
Understanding your Shoulder Joint

We want you to know as much as possible about your shoulder surgery. This information helps explain the total shoulder operation, recovery, and rehabilitation.

The shoulder joint is made up of three bones, which are connected by muscles, ligaments and tendons. The large bone in the upper arm is called the humerus. The shoulder blade is called the scapula and the collarbone is called the clavicle. The top of the humerus is shaped like a ball. This ball sits in a socket on the end of the scapula. The ball is called the head of the humerus and the socket is called the glenoid fossa. This joint is the most mobile joint in the body.

Conditions such as arthritis, old fractures, abnormal stress and aging may damage the joint and cause rough areas to develop. This creates pain and stiffness when moving the shoulder.
Shoulder Joint Replacement Components

There are two major types of artificial shoulder replacements:

- Cemented Prostheses
- Uncemented Prostheses

A cemented prosthesis is held in place by a type of epoxy cement that attaches the metal to the bone. An uncemented prosthesis is held in place by the tight press fit of the uncemented prosthesis into the bone canal. The choice to use a cemented or uncemented artificial shoulder is usually made by the surgeon based on your age, your lifestyle, and the surgeon's experience.

Each prosthesis is made up of two parts: The humeral component is the portion of the artificial joint that replaces the ball on top of the upper arm bone - the humerus.

The glenoid component replaces the socket of the shoulder that actually is part of the scapula. The humeral component is made of metal. The glenoid component is usually made of a plastic cup that provides the bearing surface. The plastic used is very tough and very slick.
HELPFUL TIPS

PLEASE bring this packet with you.

• Do not bring jewelry, money, or other valuables to the hospital.
• Do not wear eye make-up or lipstick the day of surgery.
• You may wear eyeglasses (no contact lenses) on the day of surgery. Please bring a case for glasses to be stored in.
• When packing for your stay, bring a knee-length robe that opens in the front, walking shoes with no heel, and slippers with non-skid soles. It is also a good idea to bring loose comfortable clothes and shoes to allow you to practice dressing.
• Please bring a complete list of all medications that you are currently taking, including any herbal remedies. The medication list should include:
   - Medication name
   - Medication dosage
   - How often you take the medication
   - Reason for taking the medication

• **If you bring any medication from home, they must be in the original container.**
• You may bring personal hygiene items (hairbrush, toothbrush, toothpaste, etc).
• Before the day of surgery, please contact the surgeon’s office and confirm that the surgery has been authorized by your insurance. Contact your insurance company to request information regarding which Home Health agencies, Durable Medical Equipment providers, and/or Skilled Nursing Facilities are in-network, as well as what your coverage may include.

CARE AGREEMENT

You have the right to help plan your care. Learn about your health condition and how it may be treated. Discuss treatment options with your caregivers to decide what care you want to receive. You always have the right to refuse treatment.
Getting Ready for Surgery

Before surgery, your doctor may order:

- Visits with other doctors
- X-rays
- Attend Pre-Surgery Clinic
  - Electrocardiogram (EKG)
  - Blood and urine tests as well as a MRSA screening
  - Medication and health history review
  - Meet with a case manager/discharge planner

The week before surgery:

- Ask a family member or friend to drive you home when you are discharged from the hospital.
- Ask someone to stay with you for the first week or two after surgery, in case you need help.
- You will need a walker or crutches to get around safely. Case management will help make these arrangements. You may need to move furniture around to make room for assistive devices that will be used after surgery.
- After surgery you will need to avoid bending down or reaching over your head. Keep all self-care items and most commonly used items within reach.
- You will not be able to sit or get up from low seating after surgery. Check to see if any chairs and toilet seats will cause problems.

Ask your healthcare provider about other things you can do to make your home safer.

Risks after shoulder replacement

You may bleed more than expected or get an infection. Nerves or blood vessels may be damaged during surgery. After surgery, your shoulder may be stiff or numb. You may continue to have shoulder pain. You may get a blood clot in your leg. This may become life-threatening. Your implant may get loose or move out of place. The implant may get worn out over time and need to be replaced.
Your Healthcare Team

Listed below are members of the health care team who will guide you through surgery and rehabilitation.

Nurses
- Monitor your condition throughout your stay
- Provide information and treatments needed for your recovery
- Organize and coordinate your care
- Answer questions or concerns

Case Managers
- Discuss who is available to assist at home after discharge.
- Review discharge options; Home Healthcare or Skilled Nursing Facility [SNF] if necessary.
- Review equipment needs.
- Answer questions about insurance coverage.
- Review advanced directives; living will and durable power of attorney.

Occupational Therapy (OT)
- Instruct you on how to use adaptive equipment, as needed, for bathing/dressing
- Teach you safe techniques for transferring in/out of a shower, on/off toilet, chair or bed
- Suggest tips for completing household tasks easily and safely
- Help you determine the durable medical equipment you will need at home
- Teach you shoulder and arm exercises to complete during your recovery

Physical Therapy (PT)
- Evaluate your mobility and strength
- Teach you how to get out of bed, and get in and out of the car
- Give you exercises to increase your strength and improve your shoulder’s range of motion.

Hospitalist
- The surgeon may request that an internal medicine doctor (hospitalist) see you to assist in managing care while in the hospital. There is a hospitalist available 24hrs per day.
The Day of Surgery

When you arrive at the hospital go to the main entrance. Once inside the main doors go to the right and take the elevator to the first floor. This will take you to the “same day surgery” waiting room. Check-in there to begin the admission process. Once checked-in you will be escorted to the pre-op area. One or two family members may accompany you. While in surgery, family may relax in the surgery waiting room. Surgery usually lasts one to three hours, but varies with each person.

In the pre-op area:

- You will be asked to change into a hospital gown.
- An IV will be started in the arm. Fluid and medications are given through the IV.
- Your surgeon and anesthesia provider will see you that morning and answer any questions that you may have. Afterwards, you will sign consent forms for surgery.
- Your surgeon will initial the surgical site.
- Medications are given to help with relaxing. You may feel hot, dizzy, or drowsy. This is normal.
- Once finished in the pre-op area you will be taken back to the operating room for the final pre-surgery prepping.
- The hip is scrubbed with an antiseptic soap.
- A Foley catheter (urinary catheter) may be inserted into the bladder to drain urine. It is usually removed the next morning after surgery.
- Anesthesia is administered at this time. The healthcare provider may use general anesthesia or a spinal block.
- Operating rooms are cold, and heated blankets are provided for comfort.
Surgery

Surgery usually lasts one to three hours, but varies with each person. While you are in surgery, your family may relax in the surgery waiting room.

Your healthcare provider may:

- Use medical cement to secure the implant in place.
- Use an implant that has a porous surface. This surface allows your own bone to grow into and fill the pores of the implant.
- Use both cement to hold the ball in place, and a porous socket implant.
- The incision may be closed with stitches or staples, but usually has internal stitches and glue to seal the incision, then covered with a bandage.

Immediately after Surgery

After surgery you will be taken to the Post Anesthesia Care Unit (PACU) for approximately 60 to 180 minutes, though, this time frame can be longer and varies by person. The doctor will inform family about your condition, and let them know that they will be able to see you once you have finished in the PACU and transferred to the Total Joint Center.

While in recovery area:

- Blood pressure, breathing, and other vital signs are watched closely.
- Medications for pain and nausea are available, if you need them.
- Anesthesia will place the pain ball, if prescribed.

Before you can be transferred to the 3rd floor, where the Total Joint Center is located, you must meet certain criteria in the PACU. Meeting these guidelines will insure your safety and stability for transfer.
Pain Relief

There will be some pain after surgery. Please note that, pain is not able to be eliminated completely, but can be reduced to a tolerable level. Our goal is to make your stay and recovery as comfortable as possible.

Everyone experiences pain differently. We ask that you determine what your pain goal would be. We use a pain scale to help describe pain (see chart below). This helps us determine the proper type and amount of pain medication to use. The pain scale below will be displayed on the whiteboard in each room. Reference this diagram to assist in determining your pain level.

<table>
<thead>
<tr>
<th>No Pain</th>
<th>Mild Pain</th>
<th>Uncomfortable</th>
<th>Distressing</th>
<th>Intense</th>
<th>Excruciating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No Pain</td>
<td>annoying</td>
<td>troublesome</td>
<td>miserable</td>
<td>dreadful</td>
<td>unbearable</td>
</tr>
<tr>
<td></td>
<td>nagging</td>
<td>grueling</td>
<td>agonizing</td>
<td>horrible</td>
<td>torturous</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>tearing</td>
</tr>
</tbody>
</table>

There will be an IV placed prior to surgery, this will stay in place until it’s time to leave the hospital. Your doctor may prescribe pain medicine given by mouth, IV, or intramuscular injection. Ideally we will be able to manage pain with oral pain medications. However, some people need extra medication for breakthrough pain. We have IV medications that are available for this purpose.

Pain is controlled best when medication is taken before the pain becomes severe. Be sure to tell your nurse when you are having pain. It is important to stay ahead of the pain. Your healthcare team will be communicating frequently with you regarding pain control.

Helping Circulation

Good circulation is important to promote healing. There are several things that are done to help prevent circulation problems in your legs. These may include:

- TED hose. You will be fitted with support hose called TEDs. These help prevent blood clots from forming in your legs. Tell the nurse if you have any tight or burning areas beneath the hose.
- Venous pumps. These are fabric booties that fit over your feet or legs then massage them by inflating and deflating. This helps prevent blood clots.
- Pumping your feet up and down is an easy exercise to help increase blood flow.

Blood thinning medication may be ordered to help prevent blood clots. Most patients are prescribed an oral and/or injection form of anticoagulant. It is important to take the anticoagulant medication around the same time each day.
Total Joint Center

During the first 24 hours after the operation, a nurse will monitor breathing, pulse, and blood pressure frequently. Nurses will apply a blood pressure cuff to the arm upon arrival to the floor. There will also be a device taped to the toe, or finger (likely attached to the operative extremity) to measure oxygen levels and heart rate. This is to remain on throughout the duration of your stay, especially at night. This allows nursing staff to track your status while sleeping. Nursing staff will be checking on you frequently through the day and night.

Preventing blood clots is an important part of care. You will be placed in mechanical devices that assist in preventing blood clots. One type is called a plexi-pulse that wraps around the feet and inflates with air to massage your feet and stimulate blood flow. The other type is called SCD’s (sequential compression device), these wrap around the lower portion of the legs and will also inflate with air. Moving your feet and legs (as if pushing a gas pedal) also helps keep blood flowing through the legs.

You should also have white stockings (TED hose) to help prevent blood clots. These are to be worn the majority of the time until you see your surgeon for a follow-up visit. TED hose can be removed to shower, wash, and give your legs a rest during the day, but should always be reapplied.

An ice pad is placed on the surgical site to relieve pain and prevent swelling and bleeding. This is called a CryoCuff and is yours to take home. Do not place the pad of the CryoCuff directly onto the skin, as it can cause damage to the tissue if too cold.

Supplemental oxygen may be needed after surgery. An Incentive Spirometer (I.S.) will be provided. The use of the I.S. will assist in preventing pneumonia and in decreasing the need for supplemental oxygen. The nursing and respiratory staff will teach the proper way to use the Incentive Spirometer.

**It is very important that this is done 10 times per hour, when awake!**

Pain control is an important part of your care. It is important to know that we may not be able to remove all the pain. However, we will do everything that we can to keep pain at a level that is tolerable. It is important to keep ahead of the pain. Your healthcare team will be asking about pain frequently, to ensure it is being managed properly. Pain will need to be controlled with oral pain meds prior to discharge.

Daily blood draws are done in the early mornings, to assist in monitoring status and dosing for Coumadin (if prescribed).
On your Day of Surgery

• Your nurse will assess your health & needs
• You will have frequent vital signs taken.
• Pain control – we will do all we can to keep your pain at a level that is tolerable for you. You may also have a device called a “pain ball” to help relieve pain.
• Ice – you may receive an ice machine after your surgery to help relieve discomfort caused by swelling
• Rest in between nursing functions as much as possible.
• We will be checking on you very frequently throughout the day and night to keep you safe.

Post-Op Day 1

Most patients will go home on Post-Op day 1 or 2. Certain criteria will need to be met prior to discharge (staff will cover this criteria). It’s important to be medically stable prior to discharge. Your surgeon and the hospitalist will write discharge orders, if you’re stable and safe to be discharged. The following is a list of things you can expect to happen on your second day in the hospital.

• Blood is drawn in the early morning for testing
• The nurse monitors how well your pain medicine is working, and makes adjustments as necessary.
• Continue using Incentive Spirometer to facilitate in keeping lungs clear. 10 x per hour. Deep breathing and coughing will help, as well.
• The case manager may visit to discuss your progress and any discharge needs you may have.
• Bed baths are given until your physician says you may shower.
• If you have a urinary catheter it will be removed this morning. It’s important to drink plenty of fluids to assist in being able to urinate after the catheter is removed.
• The occupational therapist visits to begin teaching you how to perform daily living tasks, review your shoulder restrictions, discuss equipment you may need at home, and begin some gentle exercises.
• Most patients go home Post-Op day 1.

Post-Op Day 2

• Blood is drawn early in the morning for testing.
• Nurses monitor your progress and coordinate any discharge needs you may have.
• A case manager visits with you regarding your discharge needs.
• This is the day you will be discharged. Discharges usually occur by noon.
• Most people go home with prescriptions for pain pills.
• Your nurse discusses your discharge, including follow-up appointments and blood tests, if needed. Any questions or concerns you have about your recovery at home are answered.
The occupational therapist returns 1-2 times today to review techniques to use to complete daily living tasks safely at home and exercise program.

Your nurse will go over all discharge instructions in detail before leaving the hospital. This includes, but is not limited to, follow-up appointments, blood tests, any new medications, safety, signs and symptoms of infection, signs and symptoms of blood clots, pain management. Any questions or concerns you have about recovery at home should be answered prior to discharge. We are here to answer any questions or concerns that may arise. Please, feel comfortable asking any questions, and/or asking us to clarify any instructions, or even asking staff to demonstrate how something is to be done. We want you to feel confident and comfortable when you leave the hospital. If questions do arise after discharge, your home health nurse is a great resource. Do not hesitate to utilize them. They are knowledgeable about post-operative joint care and are happy to help you. You may also contact us any time with questions or concerns.
Recovery and Rehabilitation

You begin an exercise program the day after surgery, unless otherwise ordered by your doctor. You may feel weak or dizzy at first. This is normal. There may be some pain when you first start to move. Let your therapist know if the pain is too severe. Remember to take your pain medication and stay on top of your pain.

Your therapist will discuss some precautions for you to follow after your surgery until otherwise instructed. The following are some of the precautions that may be issued:

- Wear sling or immobilizer splint
- Minimize or prevent swelling
  - Elevate the arm
  - Perform active exercises only to the elbow, wrist, and shoulder blade
- Avoid stressful or sudden movements of the arm. Do not lift, push, or pull against resistance until instructed otherwise (for example, do not push yourself up in bed or push up from a chair with the surgical shoulder)
- Avoid shoulder external rotation (rotating arm outward).

Exercises

In some instances, exercises for your shoulder will begin in the recovery room with gentle passive movements of the shoulder. Exercises should be done only at the direction of your therapist. The choice of exercises used after surgery will depend upon the type of surgical technique used, the type of replacement joint, how unstable the shoulder was before surgery, and whether any muscle structures were repaired during the surgical process. Exercises are used to help control pain and help with movement in the shoulder and surrounding joints. Some of the following exercises may be incorporated in your treatment plan:

**Gentle movement of your new shoulder** will be done initially with the help of your therapist.

**Pendulum exercises** may start in the hospital. These are a series of exercises in which you stand with your hips and knees bent, your surgical side leg is placed further back than the other leg, you lean over from the waist, and let your arm with the replacement shoulder hang down. You then do a series of four movements by moving your body, which in turn moves your shoulder. These four motions include movements of your body that produce clockwise circles of your arm, counterclockwise circles, back and forth movements of your arm along your side, and side to side movements of your arm across the front of your body.

**Arm exercises** may also be included in your postoperative therapy program to assure you maintain strength and flexibility in all of the other joints of your arm (elbow, wrist, and hand). The exercises to maintain strength are usually gentle isometric contractions, or setting contractions, of the muscles around the shoulder. Putty may be given for grip strengthening exercises with your hand. Exercises to maintain flexibility in the other joints will include active movements through the full range of motion of the hand, wrist, and elbow.
Other exercises may be included in your post-operative program to keep your trunk and leg muscles strong. Your therapist will instruct you in the type and number of exercises, the amount each exercise is to be done, and how often they should be done.

**Position Changes**

You will be given instructions and assistance on how to move and change positions and how to elevate the arm to help prevent or minimize swelling. Sleeping on your back or in partial side lying toward the non-surgical shoulder is recommended initially. Consult your surgeon when you can roll onto you surgical shoulder to sleep. Your therapist or nursing will assist you walking around your room and to the bathroom almost immediately after surgery which helps reduce any loss of muscle ability and enhances the circulation in your legs.

**Other Interventions**

Your occupational therapist will indicate activities you should avoid which put additional strain on the surgical area. During activities, pain acts as your guide. If you feel pain with any activity, stop and consult with the occupational therapist to determine if the activity is straining or irritating the shoulder.

You will receive instructions on the use of your sling or immobilizer splint at home and how to put the device on over clothing. Depending on your surgeon, you may need to wear the sling anywhere from a couple of days post-operatively to several weeks.

You will also be given instructions to use the arm as close to normal as possible while eating, reading, and doing any other easy activities with the arm in front of the body.
Planning Your Discharge

The discharge planner will meet with you to review discharge options, discuss safety issues, equipment, and how you will be cared for upon discharge. The final decision takes into account your doctor’s recommendations, individual needs, ability to tolerate physical activity, and insurance coverage.

Before the day of your surgery, please contact the surgeon’s office and confirm that the surgery has been authorized by your insurance. Contact your insurance company to request information regarding which Home Health agencies, Durable Medical Equipment providers or Skilled Nursing Facilities are in-network as well as what your coverage may include.

Home Health Care
Home health care may be ordered for those patients who are homebound but do not require intensive medical or rehabilitive care.

The discharge planner discusses preferences and makes appropriate referrals.

- Home care nurses monitor your recovery, including pain management, home safety, and medicines. They also consider whether you need additional help with your self-care routines.
- A physical therapist checks your progress and helps with your exercise program.
- The number of home visits varies based on individual needs and medical necessity.
- Your doctor may order additional outpatient therapy sessions after discharge from home health care if needed.
- An Occupational Therapist is available to assist you in gaining independence in daily living tasks and evaluate the safety of your home.

Home Equipment

At home, you may need the following equipment:

- Reacher
- Shower Chair
- Dressing Stick
- Long Handled Sponge
- Sock Aide

The case manager discusses equipment needs with you and coordinates with occupational therapy to assist you in obtaining the necessary items. Be advised that other than a walker, most medical equipment is not covered by insurance. Information is provided on local loan closets, equipment companies, and insurance coverage for medical equipment. Many people borrow equipment from friends or family and locate them in local thrift shops.
Home Safety

You can make your recovery safer by becoming aware of hazards in the home. We offer the following home safety tips:

- Move electrical cords out of the way.
- Remove throw rugs.
- Add firm pillows to low chairs
- Store items within easy reach
- Use a cart to move items
- Watch for small pets or objects on the floor
- Install rails along stairs if needed.
- To avoid injuring yourself, always think before you move

Call your doctor if you have any of these symptoms:

- Temperature greater than 101 degrees
- Shortness of breath or chest pain
- Redness, swelling, or warmth at the incision
- Foul-smelling drainage from incision
- Trouble maintaining range-of-motion
- Extreme pain
- Any change in muscle weakness, numbness, tingling.
- Swelling, pain, or redness in lower leg, or sharp pain in your calf when you pull your toes up toward your head. Remember to wear elastic stockings and remove them twice a day for 15 to 30 minutes while resting.
Daily Stretches After Shoulder Surgery

- It is important to keep your fingers, wrists, and elbows moving during your recovery to maintain strength, range of motion, and function of your arm.
- Perform each exercise 10 times, hold each position for one second.
- Do these exercise 2-3 times daily.

Active Range of Motion Exercises
(You move your Arm)

Finger Flexion and Extension

Rest your arm on a surface with your thumb up.

Make a fist with your hand then straighten your fingers out.

Wrist Extension and Flexion

Bend your wrist towards you, then away from you.

Pronation and Supination of Forearm

Place your palm down on a flat surface, then place your palm up.

Elbow Extension and Flexion

Straighten your elbow with your palm up. Bend your elbow to bring your palm towards your shoulder.
Passive Range of Motion Exercises
(Someone moves your arm for you)

- Perform each exercise 10 times, hold each position for one second
- Do these exercises 2-3 times daily.

External Rotation of Shoulder

Patient’s elbow should be bent to 90° & arm slightly away from body.

Support patient’s bent elbow, move patient’s hand about two inches away from patient’s body (30°).

Then return to starting position.

Abduction of Shoulder

Patient’s elbow should be slightly bent & away from body.

Support patient’s elbow and wrist. Move elbow outward, away his or her body.

Do not bring elbow higher than shoulder (90°)