Shoulder Fracture: Proximal Humerus Fracture
Patient Education Handbook
AdventHealth Orlando

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Important Phone Numbers

Orthopaedic Traumatology Office - (407) 895-8890
Phone calls are answered Monday through Friday from 8:00AM to 5:00PM

AdventHealth Orthopedic Institute Orlando - (407) 609-3049
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Introduction

This booklet was developed to help you better understand the treatment, risks and recovery you can expect due to a broken shoulder. Treatment will depend on where the bone is broken and how much the bone has moved. Some shoulder fractures need surgery to treat pain, restore movement and return function.

Injuries resulting in shoulder fractures (a broken shoulder) are frightening, but you should feel confident that you are in good hands. Our skilled, experienced team includes Medical Doctors, Anesthesiologists, Orthopedic Surgeons, Physician Assistants, Registered Nurses, Physical and Occupational Therapists and Care Managers working together to provide you the best care. The Orthopedic Institute team will make sure that patients with shoulder fractures are seen as high priority, receiving surgical care as quickly as possible.

Shoulder fractures are certainly serious and have a recovery phase that often needs time and patience. For most patients, surgery is successful and people resume normal activities after they heal.

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Shoulder Fracture: Patient Education Handbook

Understanding the Shoulder & Shoulder Fractures

Anatomy of the Shoulder

The *proximal Humerus* is the ball shaped portion of the Humerus, or the top part of the arm bone. The proximal Humerus is important because it forms half of the shoulder joint. The humeral head makes up the end of the Humerus. It moves in the socket of the shoulder joint called the *glenoid*. The major muscles that move the arm (the rotator cuff muscles) attach to the proximal Humerus.

How do Shoulder Fractures occur?

*Trauma, such as a fall or high-impact injury, is the major cause of most shoulder fractures.*

Injury can cause the Humerus (ball) or the glenoid (socket) of the shoulder joint to break (fracture). Most of these injuries can be treated without surgery with a good, long-term result. Some fractures are better treated with surgery because they may carry a high risk of arthritis if left alone. Some might be unlikely to heal, or may heal in the wrong position if not treated surgically.

After a shoulder fracture, you may have symptoms such as shoulder pain, swelling, tenderness, deformity or a "bump" at the site of the fracture, discoloration around the upper and the inability move the arm like normal, without pain.
What to Expect After a Shoulder Fracture

Plan of Care

To figure out the exact type of fracture and to create the correct treatment plan for you, the Orthopedic team will do a physical exam, review your symptoms and take X-rays. The type of fracture or ‘break’ is taken into consideration when deciding on a of treatment plan. Your treatment plan will be determined by the Orthopedic Surgeon and their Physician Assistants (PA).

Fractures are either described as being displaced or non-displaced. Nearly 80 percent of shoulder fractures are non-displaced. This means the broken pieces are still close enough to their normal position and most often do not need surgery.

About 20 percent of shoulder fractures are displaced, which means the bones have moved away from each other and may require surgery to line them back up. This can be done in several ways. The type and location of the fracture will determine your treatment plan.

Sometimes, the rotator cuff muscles are also injured or torn at the same time. Your surgeon will tell you what the best treatment for this type of injury will be.
Non-Surgical Treatment Options

Most non-displaced fractures will need a sling to keep the arm and shoulder from moving until the fracture heals enough to be comfortable and allow you to move without causing the bones to move in the wrong way. Your doctor will take X-rays to see if your bone has healed enough for you to start doing motion exercises.

It is very important to keep your elbow, shoulder and fingers flexible while resting the shoulder. At your surgeon’s direction, you will begin moving your shoulder as the fracture heals. If the arm is moved too early it can delay healing. However, too little movement will cause stiffness and more complications. Follow your surgeon and therapist’s directions for when and how much to move your arm, elbow, shoulder and fingers.

Closed Reduction

The Orthopedic PA (Physician Assistant) may provide you with initial treatment such as a closed reduction to stabilize the broken bone. A closed reduction is a method used to move the bone back into its proper place by hand. This is done to realign the broken bone, to protect the bone and to reduce the risk of further injury. You may be given a light anesthetic to relax your muscles before a closed reduction is performed. A splint or sling will be put on to keep the bones in place while you heal or wait for surgery.
Surgical Treatment Options

If the section of bone are displaced, surgery might be needed to bring the pieces together to fix them. The injury itself will determine what type of procedure the surgeon will use. Open Reduction with Internal Fixation might use plates, pins, rods, screws or cables. If the ball portion of the upper arm is broken, split or crushed, a hemiarthroplasty or a total shoulder replacement might be needed.

If surgery is needed, a medical doctor (the hospitalist) will prepare you medically for surgery. Once you are medically ready, the hospitalist will advise that you have “medical clearance”, and the surgeon will make a decision on the surgical treatment plan. Every treatment plan is specific to each patient. Be sure to talk to your Orthopedic Surgeon about your specific plan.

Open Reduction With Internal Fixation

An “open reduction with internal fixation” is a procedure the surgeon will perform where hardware is used to secure the bones back into their normal places and keep them from moving while they heal. Plates, nails, screws or cables may be used to hold the bones together. One or more surgical openings in the skin will be needed.

After the surgery, sterile bandages or a “dressing” will be put over the incision and covered by a splint or sling. See page 15 for instructions on how to care for the incision.

An occupational therapist will teach you how to move and use your arm. They will also show you exercises you will be allowed to do when you leave the hospital. See pages 18-21 for exercise examples.
Surgical Treatment Options continued...

**Shoulder Hemiarthroplasty** is a shoulder replacement where only the broken humeral head is replaced with an artificial joint, or prosthesis, and the glenoid (the socket) is not.

Shoulder hemiarthroplasties are done in patients who have severe fractures of the humeral head but no loss of cartilage on the glenoid.

Patients with this procedure will have an incision site about 6 inches long and will be in a sling for at least the first few weeks after surgery.

**Total Shoulder Replacement (TSR) or Total Shoulder Arthroplasty** is when both the humeral head (ball) and the glenoid (socket) are both replaced with an artificial joint, or prosthesis. This may be used when the head of the upper arm bone (Humerus) is shattered. It can sometimes be difficult to put the pieces of bone back in place. In addition, the blood supply to the bone pieces can be interrupted. In this case, a surgeon may recommend a total shoulder replacement.

**Reverse Total Shoulder Replacement** is when the ball and socket of the artificial joint are reversed. The ball prosthesis is put where the glenoid normally is and the socket prosthesis is placed where the humeral head normally is. Reverse TSRs are for people who have:

- Completely torn rotator cuff
- The effects of severe arthritis
- A previous shoulder replacement that failed

This allows the patient to use the deltoid muscle instead of the torn rotator cuff to lift their arm.
Going Home With a Nerve Block

To help control your pain after surgery, you received a ‘Nerve Block.’

Nerve blocks:

- Help reduce pain after surgery by giving pain relief for 8 to 24 hours after your surgery. Your nerve block may wear off sooner or last longer.

- Cause you to not be able to feel or move your arm on the side of your body the block was given.

- Cause your arm to feel heavy, numb, and ‘floppy’ on the side of your body the block was given.

Be sure you:

- Wear a sling at all times until the block has worn off to keep your arm safe. You may also have to wear it afterwards, if you are told to by your doctor.

- Do not put anything too hot or too cold directly on your skin, since you will not be able to feel it.

- Move your arm around often to keep from putting too much pressure on one area for long time.

- Check the color of your fingers every few hours if you have a cast or bandage around your arm. Call your surgeon if your fingers are bluish or purple in color.

When you notice a tingling feeling in your arm, that may mean your block is starting to wear off. It is recommended to start taking the pain medicine you were prescribed when this happens. Your pain medicine usually starts to work in about 15 minutes, but has its best effect after about an hour.

If you have not had any pain before going to bed, you may want to take your pain medication before laying down to sleep. You could also set an alarm to check and see if you are having any tingling or signs of the nerve block wearing off so you can take your pain medication before the block wears off. (See the “Taking Pain Medication at Home” section of this book.)

*If you feel the effects of the block for longer than 48 hours, please call JLR Catheter Service 407-992-6566.
Healing & Recovery After Shoulder Surgery

- You will be discharged (released from the hospital) the same day or the day after surgery.
- You will be discharged to your home where you will continue your therapy & exercises.
- Continue to do your therapy/exercises 3 times a day until your 2 week follow up appointment with your surgeon. (Exercise instructions can be found on Pages 18-21.)
- Call and schedule your 2 week follow-up appointment with your Orthopedic Surgeon as soon as possible by calling 407-895-8890.
- Wear your sling at all times, even when sleeping.****

The recovery time can be very different for each person depending on how bad the injury is and the factors that determined your plan of care, (i.e. your age, activity level, and general medical health). Existing arthritis or osteoporosis will affect the healing process as well.

Rehabilitation/exercising is essential after a shoulder fracture or replacement and the process is very specific to each person.

Your commitment and diligence to taking care of and exercising your shoulder will be the key to your return of joint function.

Call your doctor immediately if you develop or observe any of the following:

- Severe or increasing pain that is not relieved with pain medication
- New onset of numbness and/or tingling of the arm/hand
- Constant fever over 101.4, as this may be a sign of infection
- A major increase in redness, swelling, bleeding or increasing drainage from the surgical site

If you have any of the above problems or questions, please contact 407-895-8890.

Phone calls are answered Monday through Friday from 8:00 am to 5:00 pm.
Healing & Recovery After Shoulder Surgery

**Quick Tips for Pain:**

See next page: Healing & Recovery, Pain Management for more information.

- Ice
- Elevation
- Pain Medication
- Dressing check

**Pain Management**

**Ice:** Ice controls swelling and pain by slowing down the blood flow in your shoulder. Place crushed ice in plastic bag (or a frozen bag of peas) over the affected area 4-6 times every day for no more than 20 minutes at a time. Ice can be used while the initial post-op dressing and splint are on. Once the initial dressing has been removed, place a thin towel between your skin and the ice.

**Elevation:** Elevate your hand and shoulder above the level of your heart. The best position is lying down with 2-3 pillows under your arm. Elevation should be done for the first several days after surgery. Do not allow your arm to hang down at your side for long periods of time as this position will increase the swelling.

**Pain Medication:** Most patients will need some pain medication for a while after leaving the hospital. Pain medication will be prescribed for you. It is important for you to understand your medication. Follow the instruction sheet titled: “Taking Pain Medications at Home” on page 14 of this book.

**Sleeping:** Wear your sling or brace while in bed. Sleep in a reclined position with your injured arm propped up. It may also help to build a pillow fort around yourself so you don’t accidentally roll over on the injured shoulder while sleeping.

**Exercise:** Exercise will promote blood flow, mobility and maintain the range of motion in your arm and shoulder while also decreasing swelling. You may begin exercising by moving your fingers, wrist, arm and shoulder every hour right after surgery. To avoid stiffness following a broken shoulder, continue to perform your exercises as instructed. Refer to pages 18-21 for examples.
Healing & Recovery After Shoulder Surgery

Other Important Recovery Information

**Therapy exercises:** Occupational therapy will begin immediately and assist you with returning to activities of daily living sooner. Therapy greatly improves the function and motion of the shoulder and arm, and provides an excellent outcome for most patients.

If you are provided the prescription for outpatient therapy you may also receive a list of places you can go for therapy after you leave the hospital. You can also call AdventHealth Sports Medicine and Rehabilitation to locate an AdventHealth facility near your home at 407-303-8080 or you can visit: www.fhsportsmed.com.

**For best outcomes:** Get up and move around for short periods of time for the first week after surgery. However, spend most of your time elevating and icing your shoulder.

**Dressing Changes:** An air-occlusive “Band-Aid like” dressing will cover your surgical wound. This dressing will be changed 2 days after your surgery. The dressing will then be removed 5 days after surgery. See page 15 for more detailed instructions about your post-operative dressing care.

**Showering:** You may shower with your air-occlusive dressing on. Your therapist will instruct you with how to shower. Remove your sling and use the pendulum position to make room for your non-operated arm to wash armpit area. You will not be able to use operated arm to reach and wash body parts.

**If you are in a splint or cast — do not remove it to shower.** Do not remove your splint or cast until your doctor tells you it is time to do so. Be sure to keep your splint or cast clean and dry. Cover the entire area with plastic and dry your arm completely to prevent the splint from getting wet.**
Taking Pain Medications at Home

It is important for you and your family to understand the right way to take your pain medications at home. The prescription will give you enough medication to last until your first follow up visit with your surgeon. When you left the hospital, you received printed information about your medications. Please read this information prior to taking your medications. You should understand the side effects and benefits of your medication.

- Respect the power and effects of your pain medication. If you do not understand something about your prescription, ask questions.
- Take your medications as directed: at the correct dose and the correct time.
- Do not take other pain medications unless directed to do so by your physician.
- Do not increase how often or how much of your pain medication you take.
- Pain is easier to relieve when the pain level is a 3 on a scale of 1-10. Taking your pain medication when you start to feel uncomfortable will help avoid the problem of "chasing" your pain later.

- Since pain medication can cause constipation, make sure you take a laxative regularly, as long as you are taking your pain medication.
- Try relaxing: listening to your favorite music, watching a movie or any other way of relaxing that works for you. This will improve how well the pain medication is working.
- Call your surgeon if:
  * your pain gets worse,
  * if you can’t control your pain at home or
  * if you have bad side effects from the pain medication.
- If you have any questions about the medication you are taking, contact your surgeon at 407-895-8890. (Calls are answered from 8a-5p Monday through Friday.)
Dressing Changes at Home

If you are in a splint or cast, do not remove it or get it wet. The following instructions are only for patients who have a sling or brace after surgery.

Surgical dressings are placed over your surgical site to protect and prevent infection. After surgery, your Orthopedic Surgeon placed an air occlusive dressing called Aquacel or Mepilex, over your incision. This dressing protects your incision and has a special technology in the dressing that reduces pain when removing it from your skin.

Change your dressing on:
Post-op Day 2 (2 days after your surgery) Remove and Replace with another Aquacel.

Post-op Day 5 (5 days after your surgery) Follow steps below.

DO NOT apply any lotions or ointments to the incision site.

Supplies: You will be given some supplies when you leave the hospital. Additional dressing supplies can be obtained at local pharmacies.

To remove this dressing always wash your hands with soap and water.

Never touch your surgical site with your hands as bacteria can be easily transferred from your hands to your wound.

1. Gently remove the old dressing by rolling the edges with your fingers until it lifts off your skin.
2. Discard dressing into a plastic bag.
3. Look at your incision for any increased redness, drainage or open areas within the incision line (these are signs to report to your surgeon).
4. If there is no redness around the incision, drainage or open areas you may clean the incision area with antibacterial soap and water. Pat the incision dry with a clean dry towel and leave open to air (there is no need to cover with another dressing or gauze)
5. If you notice any redness, drainage or any open areas you may cover the incision with a sterile 4x4 gauze pad and secure the edges with paper tape daily, until you see your surgeon (these supplies can be purchased at a local pharmacy if needed)
6. Wash your hands after removing the dressing

Showering:
- You may shower at home leaving the Aquacel or Mepilex dressing in place.
- Do not submerge in water: No tub baths or swimming until you see your surgeon.
Constipation

Constipation is when you have a hard, dry bowel movement (stool), have fewer or smaller stools or you have a difficult time having a bowel movement or passing a stool.

Additional signs of constipation may include:

- Fullness in your belly, a bloating feeling
- Painful belly cramping and or gas pains
- Poor appetite
- Straining with bowel movements

What is the best thing to do to prevent constipation?

- Drink more fluids; especially warm drinks like tea, coffee or warm water with lemon
- Drink 8 to 10 oz. of water daily
- Include mild exercise and walking in your daily activity. Follow all directions for weight bearing and exercising that were given to you by your physician and therapist.
- Got to the bathroom as soon as you feel the urge. Do not wait.

⇒ **Increase foods with fiber in your diet.** The following foods should be included:
  1. Whole grain breads and cereals
  2. Dried fruits, raisins, prunes and dates
  3. Fresh fruit, apples, pears, bananas and cantaloupe
  4. Vegetables, carrots, potatoes, peas and beans

⇒ **Continue taking a stool softener plus laxative while on pain medication.** These can be purchased from your local pharmacy.

Constipation is the most common side effect of taking pain medication. This side effect usually will not get better or go away as long as you continue taking pain medication. Treatment for constipation should always be included when taking prescribed pain medication.

Call your doctor immediately if you are constipated and are experiencing:

- Fever, vomiting or cramping
- Inability to pass gas
- Severe abdominal pain or bloating

If you have any of the above problems or questions, please call your surgeon at 407-895-8890.
Home Safety

Before you go home, it is important to make sure your home is set up right for you to recover safely:

**Tips:**

- Heavy housework such as vacuuming and lifting should be avoided
- Keep everyday items at the countertop level to avoid too much reaching and bending
- Remove throw rugs, rugs with fringes or any other floor covering that could cause tripping
- Make sure all areas have good lighting
- Use non-slip stickers or bath mats in the shower stall or tub
- Place cell phones within reach
- Keep areas such as stairs, hallways, entrances and bathrooms as clear as possible of items that may cause tripping
- Wear shoes with a back strap that provide support. Avoid slippers or flip flops
- Use the equipment as taught to you by the therapist to make sure you are safe

**Stairs (Inside and Outside):**

- Are the step surfaces non-slip and in good repair?
- Are step edges visually marked to avoid tripping (i.e. colored adhesive tape)?
- Are stairways adequately lit?
- Are handrails present? Are they present on both sides? Are handrails securely fastened to the walls?

**Outside of the Home:**

- Are walkways in good repair, non-slip and free of objects that could be tripped over?
- Is there enough outdoor lighting to provide safe walking at night?
A personalized exercise program will be created for you by your therapist as directed by your surgeon. The following instructions and restrictions are to be maintained until your first follow up visit with your surgeon.

- **NO** active flexion or abduction of your arm: **DO NOT** use your own muscle power to move your arm upwards in front of you **OR** outwards towards the side.

- *Movement is allowed only if someone else is doing the movement for you (Passive Motion).*

- Your restrictions for Passive Range of Motion (movement from someone else) will be determined by your therapist.

- **DO NOT** put any weight over **0 pounds** on your affected arm.

- **DO NOT** use your arm to hold or lift anything over **2 pounds**.

- Perform hand, wrist, forearm, and elbow exercises 3 times a day to maintain mobility and to alleviate swelling.

- Perform all pendulum exercises for 1 minute in each direction 3 times a day.

- Perform table slides and wall walking exercises 3 times a day.

- Elevate and ice your affected arm in between exercises to alleviate swelling.
Personal Exercise Program

The following exercises taught by your occupational therapist, as directed by your surgeon, are to be maintained until your follow up visit with your surgeon.

- Do NOT do any exercise which your therapist or surgeon has instructed you to avoid.
- Repeat each of the following 3 times per day.
- Increase repetitions as instructed by your therapist.
- You might not be able to perform some of the exercises if you have a splint or cast. Ask your therapist for direction about which exercises you should do.

WRIST UP & DOWN
1. Support your wrist with your non-affected hand if needed.
2. Keep your arm steady
3. Move your wrist up & down as far as possible
4. Repeat 10 times.

PALM UP & DOWN
1. Keep your elbow bent at your side and palm turned down.
2. Turn your palm up and down rotating your only forearm.
3. Repeat 10 times.
Personal Exercise Program

The following exercises taught by your occupational therapist, as directed by your surgeon, are to be maintained until your follow up visit with your surgeon.

- Repeat these exercises 3 times per day
- Increase repetitions as instructed by your therapist

ELBOW BEND & STRAIGHTEN
1. Grasp the wrist of the arm that you want to exercise.
2. Bend your elbow and assist the movement with your other hand.
3. Straighten your elbow.
4. Repeat 10 times.

SHOULDER ROLLS
1. Move your shoulders UP, BACK, & RELAX DOWN.
2. Repeat 10 times.

FINGERS OPEN & CLOSE
1. Make a fist.
2. Open your fist.
3. Repeat 10 times.
Personal Exercise Program

The following exercises taught by your occupational therapist, as directed by your surgeon, are to be maintained until your follow up visit with your surgeon.

- Repeat these exercises 3 times per day
- Increase repetitions as instructed by your therapist

**TABLE SLIDES**
1. Sit on a chair with your arm supported on the table.
2. Place a towel underneath your arm.
3. Use your unaffected hand to hold onto the wrist of your affected arm.
4. Using the strength from your unaffected arm, slide the affected arm forward and backward on the table.
5. Repeat 10 times.

**BEND DOWN & SIT UP**
1. Sit with your feet firmly on the floor.
2. Bend your trunk forward, keeping your shoulder relaxed.
3. Let your arm dangle by your side until you hand reaches the floor.
4. Repeat 10 times.

**WALL WALKS**
1. Stand facing a wall.
2. Bring your good hand under the elbow of affected arm.
3. Use your hand to assist the affected arm to “walk your fingers up the wall” to the allowed limit of: __________
4. Repeat 10 times.
Personal Exercise Program

The following exercises taught by your occupational therapist, as directed by your surgeon, are to be maintained until your follow up visit with your surgeon.

- Repeat these exercises 3 times per day
- Increase repetitions as instructed by your therapist

PENDULUMS: FORWARD & BACK
1. Stand leaning on a table with unaffected hand.
2. Let your other arm hang relaxed straight down.
3. Swing your arm forwards and backwards for 1 minute.
4. Repeat 3 times per day.

PENDULUMS: SIDE TO SIDE
1. Stand leaning on a table with unaffected hand.
2. Let your other arm hang relaxed straight down.
3. Swing your arm to your left and then to your right for 1 minute.
4. Repeat 3 times per day.

PENDULUMS: CIRCLES
1. Stand leaning on a table with unaffected hand.
2. Let your other arm hang relaxed straight down.
3. Swing your arm as if drawing a circle on the floor for 1 minute. Change direction for 1 minute.
4. Repeat 3 times per day.
References


FLORIDA HOSPITAL ANESTHESIOLOGY. (2017, APRIL). POST NERVE BLOCK DISCHARGE INSTRUCTIONS. ORLANDO, FL, US.
feel whole™