TEXAS BONE & JOINT

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Dr. Payne Total Shoulder Arthroplasty/Hemiarthroplasty Protocol

The intent of this protocol is to provide the clinician with a guideline of postoperative rehabilitation course. It is not intended to be a substitute for appropriate clinical decision making regarding the progression of a patient's postoperative course. The actual post-surgical physical therapy management must be based on the surgical approach, physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requests assistance in the progression of a patient post-surgery, they should consult Dr. Payne.

Please note: Patients with a concomitant repair of rotator cuff tear and/or a THS/hemi secondary to fracture or cuff arthropathy should be progressed to the next phase based on the meeting of clinical criteria (not based on the postoperative time frames) as appropriate in collaboration with Dr. Payne.

Phase 1 – Immediate Post-Surgical (0-4 weeks)
Goals:

- Allow healing of soft tissue
- Maintain integrity of replaced joint
- Gradually increase PROM of the shoulder; restore AROM of the elbow/wrist/hand
- Reduce pain and inflammation
- Reduce muscular inhibition
- Independent with activities of daily living (dressing, bathing, etc) with modification while maintaining the integrity of the replaced joint.

Precautions:

- Sling should be worn for 1-2 weeks, then for comfort only
- Sling should be used for sleeping and when out in public for the 1-2 weeks.
- The sling should be removed gradually over the course of the first 1-2 weeks to move the elbow, wrist, and hand.
- While lying supine, a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension/anterior capsule stretch/subscapularis stretch.
- You may do activities like "drinking coffee or reading the paper" immediately following surgery.
- No lifting of objects heavier than an coffee cup.
- No shoulder motion behind back.
- No excessive stretching or sudden movements (particularly external rotation)
- No supporting of body weight on the involved side.
- Keep incision clean and dry (no submersion) for 2-4 weeks. Showers are OK.
- No driving until off all Narcotic pain medication

Criteria for progression to the next phase:

- Tolerates PROM
- At least 90° of PROM flexion
- At least 90° of PROM abduction
- At least 45° of PROM ER in plane of scapula
- At least 70° of PROM IR in plane of the scapula

Postoperative Day #1 (Usually in Hospital):

- The sling should only be removed by the physical therapist for motion and for showers.
- Passive forward flexion in supine to tolerance
- NO external rotation.
- Passive internal rotation to the chest
- Active distal extremity exercise (elbow, wrist, and hand)
- Pendulum exercises.
- Frequent cryotherapy for pain, swelling, and inflammation management. 20 mins of every hour.
- Patient education regarding proper positioning and joint protection techniques.

Postoperative Day #2 (Usually out of the hospital)

- Continue the above exercises
- Assisted flexion and abduction in the scapular plane
- Assisted external rotation
- Begin sub-maximal, pain free shoulder isometrics in neutral
- Begin scapular musculature isometrics/sets
- Begin active-assisted Elbow ROM
- Pulley (flexion and abduction) – as long as pt has greater than 90° PROM
- Continue cryotherapy as much as possible.

Post-operative Days #10-28

- Continue previous exercises
- Continue to progress PROM as motion allows
- Gradually progress to AAROM in pain free ROM.
- Progress active distal extremity exercise to strengthening as appropriate.
- Restore active elbow ROM.

Phase II – Passive and Active ROM (Weeks 4-6)

- Continue PROM progression/gradually restore full PROM
- Gradually restore Active ROM
- Control pain and inflammation
- Allow continued healing of soft tissue
- Do not overstress healing tissue
- Re-establish dynamic shoulder stability

Precautions:

- Sling should be used for sleeping and removed gradually over the course of the next 2 weeks.
- While lying supine a small pillow or towel should be placed behind the elbow to avoid shoulder hyperextension/anterior capsular stretch.
- Begin AROM against gravity.
- No lifting of any objects heavier than a coffee cup.
- No supporting of body weight by affected side.
- No sudden or jerking movements.

Criteria for progression to next phase:

- Tolerates P/AAROM, isometric program
- Has achieved at least 140° PROM flexion
- Has achieved at least 120° PROM abduction
- Has achieved at least 60° PROM ER in plane of scapula
- Has achieved at least 70° PROM IR in plane of scapula

Week 4:

- Continue with PROM, AAROM, isometrics
- Scapular strengthening
- Begin Assisted horizontal adduction
- Progress distal extremity exercises with light resistance as appropriate
- Gentle joint mobilization as indicated
- Initiate rhythmic stabilization
- Continue use of cryotherapy for pain and inflammation

Weeks 5-6:

- Begin Active forward flexion, internal rotation, external rotation and abduction in supine position, in pain free ROM
- Progress scapular strengthening exercises.
- Wean sling completely.
- Begin isometrics of rotator cuff and periscapular muscles.

Phase III – AROM and Mild-Moderate Strengthening (Weeks 6-12)

Goals:

- Gradual restoration of shoulder strength, power, and endurance
- Optimize neuromuscular control
- Gradual return to functional activities with involved upper extremity

Precautions:

- No heavy lifting (no objects over 5 lbs)
- No sudden lifting or pushing activities
- No jerking motions

Criteria for progression to the next phase (Phase IV):

- Tolerated AA/AAROM
- Has achieved at least 140° AROM flexion supine
- Has achieved at least 120° AROM abduction supine
- Has achieved at least 60° AROM ER in plane of scapula supine
- Has achieved at lease 70° of AROM IR in plane of scapula supine
- Be able to actively elevate shoulder against gravity with good mechanics to at least 120°

Weeks 6-8:

- Increase anti-gravity forward flexion, abduction as appropriate
- Active internal and external rotation in scapular plane.
- Advance PROM as tolerated, begin light stretching as appropriate
    - Typically pt is on a home exercise program at this point 3-4x a wee
- Continue PROM as needed to maintain ROM
- Initiate assisted IR behind back
- Begin light functional activities

Weeks 8-10:

- Begin progressive supine active elevation (anterior deltoid strengthening) with light weights (1-3 lbs) and variable degrees of elevation

Weeks 10-12:

- Begin resisted flexion, abduction, and external rotations (therabands/sport cords)
- Continue progressing internal and external strengthening
- Progress internal rotation behin back from AAROM to AROM as ROM allows (pay particular attention to avoiding stress on the anterior capsule)

Phase IV – Strengthening Equals Autotherapization (12 weeks and beyond)

Goals:

- Maintain full non-painful AROM
- Enhance functional use of upper extremity
- Improve muscular strength, power, and endurance
- Gradual return to more advanced function activities
- Progress closed chain exercises as appropriate.

Precautions:

- Avoid exercise and functional activities that put stress on the anterior capsule and surrounding structures (ex: No combined ER and abduction above 80° of abduction).
- Ensure gradual progression of strengthening.

Criteria for discharge from skilled therapy:

- Patient able to maintain full non-painful active ROM
- Maximized functional use of UE
- Maximized strength, power, and endurance
- Patient has returned to more advanced functional activities

Week 12+

- Gradually progress strengthening program
- Gradually return to moderately challenging functional activities

4-6 mos:

- Return to recreational hobbies, gardening, sports, golf, doubles tennis

Special Instructions/Precautions: