



Total Shoulder Arthroplasty/Hemiarthroplasty Protocol:

This protocol is to provide the therapist with a guideline for the postoperative rehabilitation course of a patient that has undergone a Total Shoulder Arthroplasty (TSA) or Hemiarthroplasty (Humeral Head Replacement, HHR). It is not intended to be a substitute for appropriate clinical decision-making regarding the progression of a patient's post-operative course. If a therapist requires assistance in the progression of a post-operative patient, they should consult the surgeon.

Immediate Post-Operative (0-4 weeks):

Goals:

- Allow healing of soft tissue
- Maintain integrity of replaced joint
- Gradually increase passive range of motion (PROM) of shoulder; restore active range of motion (AROM) of Elbow/Wrist/Hand
- Diminish pain and inflammation
- Prevent muscular inhibition
- Passive Forward Flexion in supine to tolerance
- ER in scapular plane to neutral
- Passive internal rotation to chest
- Pendulums
- Frequent cryotherapy for pain, swelling and inflammation management

Precautions:

- Sling should be worn for 4-6 weeks, then for comfort only
- Sling should be used for sleeping and when out in public for the 4-6 weeks.
- You may do activities like "drinking coffee or reading the paper" immediately following surgery. Formal Physical Therapy will start within the first week after surgery.
- No lifting of objects heavier than a coffee cup.
- No stretching or sudden movements (particularly external rotation)
- No Internal resisted internal rotation or extension

Criteria for progression to the next phase: (Not to surpass the given timeline)

- Tolerates PROM program
- at least 90 degrees PROM flexion
- at least 90 degrees PROM abduction.
- at least 0 degrees PROM ER in plane of scapula
- at least 70 degrees PROM IR in plane of scapula
- Be able to isometrically activate all shoulder, RC, and upper back musculature



Phase I – Passive/Active Assist/Active Range of Motion (Weeks 1-6):

Goals:

- Continue PROM progression/ gradually restore full passive ROM
- Gradually restore Active motion
- Control Pain and Inflammation
- Begin sub-maximal, pain-free shoulder/scapula isometrics in neutral
- Do not overstress healing tissue
- Re-establish dynamic shoulder stability
- Begin shoulder AROM against gravity.

Precautions:

- Sling should be used as needed for sleeping and removed gradually over the course of 4-6 weeks after surgery.
- While lying supine a small pillow roll or towel should be placed behind the elbow to avoid shoulder hyperextension / anterior capsule stretch.
- No heavy lifting of objects (no heavier than coffee cup)
- No supporting of body weight by hands and arms
- No sudden jerking motions
- No Internal resisted internal rotation, extension or scapular retraction

Criteria for progression to next phase: (Not to surpass the given timeline)

- Tolerates P/AAROM, isometric program
- Has achieved at least 140 degrees PROM flexion
- Has achieved at least 30+ degrees PROM ER in plane of Scapula
- Has achieved at least 70 degrees PROM IR in plane of Scapula
- Be able to actively elevate shoulder against gravity with good mechanics to 100 degrees.

Phase II – Active Range of Motion & Mild-Moderate strengthening (week 6-12):

Goals:

- Gradual restoration of shoulder strength, power, and endurance
- Gradual return to functional activities with involved upper extremity
- Initiate assisted IR behind back
- Begin resisted flexion, Abduction, External rotation (Thera bands/sport cords)
- Continue progressing internal and external strengthening
- Active internal rotation and external rotation in scapular plane
- Advance PROM as tolerated, begin light stretching as appropriate
- Continue PROM as need to maintain ROM
- Progress internal rotation behind back from AAROM to AROM as ROM allows (pay attention as to avoid stress on the anterior capsule.)



Precautions:

- No heavy lifting of objects (no heavier than 5 lbs.)
- No sudden lifting or pushing activities
- No Internal resisted internal rotation, extension or scapular retraction

Criteria for progression to the next phase: (Not to surpass the given timeline)

- Tolerates AA/AROM
- Has achieved at least 140 degrees AROM flexion supine
- Has achieved at least 90 degrees AROM abduction supine.
- Has achieved at least 60+ degrees AROM ER in plane of Scapula supine
- Has achieved at least 70 degrees AROM IR in plane of Scapula supine
- Be able to actively elevate shoulder against gravity with good mechanics to least 120 degrees.

Phase III – Strengthening (12 weeks-beyond)

Goals:

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

Precautions:

- Avoid exercise and functional activities that put stress on the anterior capsule and surrounding structures. (Example: no combined ER and abduction above 80 degrees 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 muscular strength, power, and endurance
- Patient has returned to more advanced functional activities

WEEK 12+:

- Typically, patient is on just a home exercise program by this point 3-4x per week.
- Gradually progress strengthening program