



Total Shoulder Arthroplasty Rehabilitation Protocol

The total shoulder arthroplasty (TSA) procedure is performed to improve function, increase active range of motion and reduce pain of the shoulder. The following is a guideline for progression of post-operative treatment.

General Information

- Time required for full recovery is 9-12 months.
- Accelerating rehabilitation for “fast healers” may inhibit results and lead to recurrent problems or complications.
- Patients may never regain full, normal motion, but patients will be encouraged to reach their maximal level of function.

Precautions

- In this procedure, the subscapularis is detached for exposure of the glenohumeral joint and then reattached after the surgery is complete. This reattachment must be protected for 6 weeks. During this time, strengthening activities involving internal and external rotation must be avoided.

Immobilization

- Sling should be worn for the first 48-72 hours.
- After 3 days, sling can be removed for light activity such as desk work.
- Sling should be worn as needed during the day, whenever the patient is active or in an unprotected environment; it should always be worn at night for the first 6 weeks.
- Discontinue sling completely at 6 weeks.

1st Post-Op Visit

- 1) Wound inspection
- 2) Patient education
 - **No active shoulder motion for 4 weeks, all planes**
 - **No active internal rotation for 6 weeks**
 - Sling use as directed by physician
 - Keep wound dry
 - Icing 3 times/day for 20 minutes
- 3) Exercise
 - Pendulum exercise without weight
 - Clockwise
 - Counterclockwise
 - Side-to-side
 - Front & back
 - AAROM exercise - to patient tolerance - with cane and/or table slides
 - Flexion
 - Abduction
 - External rotation to 20° only or as directed by physician



- AROM exercise
 - Elbow flexion/extension
 - Wrist flexion/extension and supination/pronation
 - Shrugs/retractions
- 4) Ice
- 5) Modalities - PRN

1 Week Post-Op

- 1) Wound check
 - If wound is sealed, it is okay to shower but not soak
- 2) Exercise
 - Pendulum exercise
 - AAROM exercise - to patient tolerance - with cane
 - Isometric exercise
 - Flexion/extension
 - Abduction
 - External rotation
 - Progressive resistive exercise
 - Shoulder shrugs
 - Triceps/shoulder extension
 - Scapular retraction - prone
 - Gripping exercises
 - Wrist supination/pronation
 - Wrist flexion/extension
- 3) Modalities - PRN
- 4) Ice

2 Weeks Post-Op

- 1) Wound check, sutures out
- 2) Exercise
 - AAROM
 - UBE, forward/reverse
 - With cane - progress to finger ladder/wall climbs/pulley system
 - Pulleys for home exercise program
 - Pendulum exercise with light weight
 - Isometrics - as previous
 - Progressive resistive exercise - as previous
- 3) Modalities - PRN
- 4) Ice

4 Weeks Post-Op

- 1) Scar mobility
- 2) Exercise
 - AROM
 - All planes - limit ER to 30° or as directed by physician



- UBE, forward/reverse
- Progressive resistive exercise - continue as previous, adding:
 - Serratus punch - supine, without weight
- 3) Modalities - PRN
- 4) Ice

6 Weeks Post-Op

- 1) Discontinue sling use
- 2) Exercise
 - AROM
 - All planes - **limit external rotation to 45°**
 - UBE, forward/reverse and standing off to side clockwise and counterclockwise
 - Progressive resistive exercise - continue as previous, adding:
 - -Shoulder internal/external rotation with low resistance Theraband (limit ER to 45°)
 - Wall push-up plus, hand in neutral position
 - Rhythmic stabilization
 - Body Blade
 - One-handed grip in neutral position
 - Two-handed grip in front
 - Opposite hand diagonal pattern
- 3) Grade I/II glenohumeral joint mobilization - as indicated
- 4) Modalities - PRN
- 5) Ice

8 Weeks Post-Op

- 1) Full PROM, ER to 60°, and advance to full AROM (ER 60°); able to add stretching in forward elevation (if lacking)
- 2) Exercise
 - Progressive resistive exercise - continue as previous, adding:
 - *Low resistance/high repetition:*
 - Flexion
 - Prone fly
 - Abduction
 - Scapular retraction
 - Supraspinatus (limit to 70°)
 - Prone extension
 - Wall push-up plus, hands in neutral position
 - Body Blade
 - One-handed grip, abduction to 90°
 - Two-handed grip, flexion to 90°
 - Plyoball
 - Circles - CW and CCW, 1 minute each direction
 - Squares - CW and CCW, 1 minute each direction
- 3) Grade I/II glenohumeral joint mobilization - as indicated
- 4) Modalities - PRN
- 5) Ice



10 Weeks Post-Op

- 1) Full PROM, ER to 60°; continue stretching (forward elevation, abduction, IR, ER)
- 2) Exercise
 - Progressive resistive exercise - continue as previous, adding:
 - Kneeling push-up
 - Step-up push-up in quadruped position
 - Plyoball diagonal patterns
 - Fitter
 - Side-to-side
 - Front & back
 - Progress weight and range of motion as tolerated by patient, with closed- and open-chain exercises and proprioceptive activities
- 3) Glenohumeral joint mobilization - as indicated
- 4) Modalities - PRN
- 5) Ice

12 Weeks Post-Op

- 1) Should have full AROM, ER to 60°; if not, begin passive stretch to achieve full ROM (forward elevation, abduction, IR, ER)
- 2) Exercise
 - Progressive resistive exercise - continue as previous, adding:
 - Body Blade diagonals - progress to single-leg stance
 - Push-up plus in push-up position
 - Step-ups in push-up position
- 3) Glenohumeral joint mobilization - as indicated
- 4) Modalities - PRN
- 5) Ice

16 Weeks Post-Op

- 1) Should have full AROM, ER to 75°; continue passive stretch to achieve full ROM
- 2) Exercise
 - Continue with exercise program, progressing with weight & endurance as tolerated
- 3) Grade I/II glenohumeral joint mobilization - as indicated
- 4) Modalities - PRN
- 5) Ice
- 6) Released to perform activities as tolerated

24 Weeks Post-Op

Progression to full activity as directed by physician