

Partial/Total Shoulder Arthroplasty POST-OPERATIVE PHYSICAL THERAPY PROTOCOL

Rehabilitation Precautions

- Sling should be worn continuously for six weeks
- No internal rotation (IR) x 12 weeks
- No cross chest adduction x 12 weeks
- Forward elevation in SCAPTION only
- No excessive stretching or sudden movements, particularly in external rotation (ER)
- While lying supine, a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension/anterior capsule stretch/subscapularis stretch
- Avoid shoulder active range of motion (AROM)
- No lifting of objects
- No supporting of body weight by hand on involved side (for example, pushing up from a chair) x 12 weeks
- Keep incision clean and dry (no soaking for two weeks)
- No driving for six weeks

→ Check with surgeon's office if posterior instability precautions are indicated on referral or operative report

Post-operative – 2 weeks

- **ROM**
 - Passive forward flexion in supine to tolerance
 - Gentle external rotation (ER) in scapular plane to available PROM (as documented in operative note), usually around 30° (attention: DO NOT produce undue stress on the anterior joint capsule, particularly with shoulder in extension)
 - Active distal extremity exercise (elbow, wrist, hand)
 - Pendulum exercises
 - Frequent cryotherapy for pain, swelling, and inflammation management
 - Patient education regarding proper positioning and joint protection techniques
- **Strengthening**
 - Begin scapula musculature isometrics/sets (primarily retraction)
- **Goals to Progress to Next Phase**
 1. Gradually increase passive range of motion (PROM) of shoulder
 2. Restore active range of motion (AROM) of elbow/wrist/hand
 3. Reduce pain and inflammation
 4. Reduce muscular inhibition
 5. Independence with activities of daily living (ADLs) with modifications, while maintaining the integrity of the replaced joint

Week 2 – 4

- **ROM**
 - Continue to progress PROM as motion allows
 - Begin assisted flexion, abduction, ER in the scapular plane→ NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT
- **Strengthening**
 - Progress active distal extremity exercise to strengthening as appropriate
- **Goals to Progress to Next Phase**
 1. Tolerates PROM program
 2. Achieves at least 90° PROM flexion
 3. Achieves at least 90° PROM abduction
 4. Achieves at least 45° PROM ER in plane of scapula

Week 4-6

- **Rehabilitation Precautions**
 - Sling should only be used for sleeping and removed gradually over the course of the next 2 weeks, for periods throughout the day
 - While lying supine, a small pillow or towel should be placed behind the elbow to avoid shoulder hyperextension/anterior capsule stretch
 - In the presence of poor shoulder mechanics avoid repetitive shoulder AROM exercises/activity against gravity in standing
 - No heavy lifting of objects (no heavier than coffee cup)
 - No supporting of body weight by hand on involved side
 - No sudden jerking motions
- **ROM**
 - Continue with PROM, active assisted range of motion (AAROM)
 - Begin active flexion, ER, abduction pain-free ROM
 - AAROM pulleys (flexion and abduction), as long patient has greater than 90° of PROM
 - Gentle glenohumeral and scapulothoracic joint mobilizations as indicated
 - Continue use of cryotherapy for pain and inflammation→ NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT
- **Strength**
 - Begin shoulder submaximal pain-free shoulder isometrics in neutral
 - Scapular strengthening exercises as appropriate
 - Progress distal extremity exercises with light resistance as appropriate
 - Initiate glenohumeral and scapulothoracic rhythmic stabilization
- **Goals to Progress to Next Phase**
 1. Tolerates PROM/AAROM, isometric program
 2. Achieves at least 140° PROM flexion
 3. Achieves at least 120° PROM abduction
 4. Achieves at least 60° PROM ER in plane of scapula
 5. Able to actively elevate shoulder against gravity with good mechanics to 100°

Week 6-8

- **Rehabilitation Precautions**
 - No heavy lifting of objects (no heavier than 6 pounds)
 - No sudden lifting or pushing activities
 - No sudden jerking motions

- **ROM**
 - Progress AROM exercise/activity as appropriate
 - Advance PROM to stretching as appropriate
 - Continue PROM as needed to maintain ROM
 - NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT
- **Strength**
 - Resisted shoulder ER in scapular plane
 - Begin light functional activities
 - Wean from sling completely
 - Begin progressive supine active elevation strengthening (anterior deltoid) with light weights (1-3 pounds) at variable degrees of inclination from supine to seated/standing
- **Goals**
 1. Gradual restoration of shoulder strength, power, and endurance
 2. Optimize neuromuscular control
 3. Gradual return to functional activities with involved upper extremity

Week 8-10

- **ROM**
 - Progress ROM as tolerated.
 - NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT
- **Strength**
 - Resisted flexion, abduction, extension (Therabands/sport cords)
 - Continue progressing ER strength
- **Goals**
 1. Tolerates AAROM/AROM/strengthening
 2. Achieves at least 140° AROM flexion supine
 3. Achieves at least 120° AROM abduction supine
 4. Achieves at least 60° AROM ER in plane of scapula supine
 5. Able to actively elevate shoulder against gravity with good mechanics to at least 120°

Note: If above ROM are not met, then patient is ready to progress when the patient's ROM is consistent with outcomes for patients with the given underlying pathology.

Weeks 10-12

- **Precautions**
 - Avoid exercise and functional activities that put stress on the anterior capsule and surrounding structures (eg, no combined ER and abduction above 80° of abduction)
- **ROM**
 - Maintain nonpainful AROM
 - NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT
- **Strength**
 - May initiate IR strengthening at the 12 week postop mark
 - Gradually progress strengthening program to improve muscular strength, power, and endurance
 - Gradual return to more advanced functional activities
 - Progress weight-bearing exercises as appropriate
 - Typically patient is on a home exercise program by this point, to be performed 3 to 4 times per week
 - Return to recreational hobbies, gardening, sports, golf, doubles tennis
- **Criteria for discharge**
 1. Patient able to maintain nonpainful AROM
 2. Maximized functional use of upper extremity
 3. Maximized muscular strength, power, and endurance
 4. Patient has returned to advanced functional activities

Appendix 1

Simple Shoulder Test – (Circle yes or no)

1. Is your shoulder comfortable with your arm at rest by your side?	Yes	No
2. Does your shoulder allow you to sleep comfortably?	Yes	No
3. Can you reach the small of your back to tuck in your shirt with your hand?	Yes	No
4. Can you place your hand behind your head with the elbow straight out to the side?	Yes	No
5. Can you place a coin on a shelf at the level of your shoulder without bending your elbow?	Yes	No
6. Can you lift 1 lb (a full pint container) to the level of your shoulder without bending your elbow?	Yes	No
7. Can you lift 8 lb (a full gallon container) to the level of the top of your head without bending your elbow?	Yes	No
8. Can you carry 20 lb (a bag of potatoes) at your side with the affected extremity?	Yes	No
9. Do you think you can toss a softball underhand 10 yards with the affected extremity?	Yes	No
10. Do you think you can throw a softball overhand 20 yards with the affected extremity?	Yes	No
11. Can you wash the back of your opposite shoulder with the affected extremity?	Yes	No
12. Would your shoulder allow you to work full-time at your regular job?	Yes	No

Appendix 2

American Shoulder and Elbow Surgeons Standardized Assessment Form- Patient Self Report

Pain: How bad is your pain today? (mark along the line)

No Pain

Pain is as bad as it can be

Function: Circle the number that indicates your ability to do the following activities.

0-Unable to do 1- Very difficult to do 2- Somewhat difficult 3- Not difficult

Activity	Right Arm	Left Arm
1. Put on a coat	0 1 2 3	0 1 2 3
2. Sleep on your painful side	0 1 2 3	0 1 2 3
3. Wash back / do up bra in back	0 1 2 3	0 1 2 3
4. Manage toileting	0 1 2 3	0 1 2 3
5. Comb hair	0 1 2 3	0 1 2 3
6. Reach a high shelf	0 1 2 3	0 1 2 3
7. Lift 10 pounds above the shoulder	0 1 2 3	0 1 2 3
8. Throw a ball overhand	0 1 2 3	0 1 2 3
9. Do usual work (list) _____	0 1 2 3	0 1 2 3
10. Do usual sport (list) _____	0 1 2 3	0 1 2 3

