Curtis J Kephart, MD

Orthopedic Surgery and Sports Medicine
FL License: 116858

Reverse Shoulder Arthroplasty Protocol:

The intent of this protocol is to provide the therapist with a guideline for the post-operative rehabilitation course of a patient that has undergone a Reverse Shoulder Arthroplasty. It is not intended to be a substitute for appropriate clinical decision-making regarding the progression of a patient's post-operative 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 therapist requires assistance in the progression of a post-operative patient they should consult with Dr. Kephart.

Please Note:

Those patients with a concomitant repair of a rotator cuff tear and/or a RSA secondary to fracture should be progressed to the next phase based on meeting the Clinical Criteria (not based on the post-op time frames) as appropriate in collaboration with Dr. Kephart.

Phase I – Immediate Post Surgical (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
- Independent with activities of daily living (dressing, bathing, etc.) with modifications while maintaining the integrity of the replaced joint.

Precautions:
- Sling should be worn at all times for 3 weeks – except showers
- Sling should be used for sleeping and removed gradually over the course of the four weeks, for periods throughout the day.
- While lying supine a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension / anterior capsule / subscapularis stretch.
- Avoid Shoulder active range of motion.
- No lifting of objects
- No excessive shoulder motion behind back
- No excessive stretching or sudden movements (particularly external rotation)
- No supporting of body weight by hand on involved side
- Keep incision clean and dry (no soaking for 2 weeks)
- No driving for 3 weeks

Criteria for progression to the next phase:
- Tolerates PROM program
- at least 90 degrees PROM flexion
- at least 90 degrees PROM abduction.

- Be able to isometericaly activate all shoulder, RC, and upper back musculature

Postoperative Day #1 (in hospital):

- Passive Forward Flexion in supine to tolerance
- ER in scapular plane to available gentle PROM (as documented in Operative Note) – usually around 30 degrees.
  (Attention: DO NOT produce undue stress on the anterior joint capsule and subscapularis particularly with shoulder in extension)
- Passive internal rotation to chest
- Active distal extremity exercise (Elbow, Wrist, Hand)
- Pendulums
- Frequent cryotherapy for pain, swelling and inflammation management
- Patient education regarding proper positioning & joint protection techniques

Postoperative Days # 2-10 (out of hospital)

- Continue above exercises
- Assisted flexion and abduction in the scapular plane
- Assisted external rotation
- Begin sub-maximal, pain-free shoulder isometrics in neutral
- Begin scapula musculature isometrics / sets
- Begin active assisted Elbow ROM
- Pulleys (flexion and abduction) – as long as greater than 90 degrees of PROM
- Continue Cryotherapy as much as able for pain and inflammation management

Postoperative Days # 10-21:

- 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 – Early Strengthening (Weeks 3-6):

Goals:

- Continue PROM progression/ gradually restore full passive ROM
- Gradually restore Active motion
- Control Pain and Inflammation
- Allow continue healing of soft tissue
- Do not overstress healing tissue
- Re-establish dynamic shoulder stability

Precautions:

- Sling should be used as needed for sleeping and removed gradually over the course of the next two weeks, for periods throughout the day.
- While lying supine a small pillow role or towel should be placed behind the elbow to avoid shoulder hyperextension / anterior capsule stretch.

- Begin shoulder AROM against gravity.
- No heavy lifting of objects (no heavier than coffee cup)
- No supporting of body weight by hands and arms
- No sudden jerking motions

Criteria for progression to next phase:
- Tolerates P/AAROM, isometeric program
- Has achieved at least 140 degrees PROM flexion
- Has achieved at least 120 degrees PROM abduction.
- Has achieved at least 60+ 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.

Week 3:
- Continue with PROM, AAROM, Isometrics
- Scapular Strengthening
- Begin Assisted Horizontal adduction
- Progress Distal Extremity Exercises with light resistance as appropriate
- Gentle Joint Mobilizations as indicated
- Initiate Rhythmic stabilization
- Continue use of cryotherapy for pain and inflammation.

Week 4:
- Begin Active forward flexion, internal rotation, external rotation, and abduction in supine position, in pain free ROM
- Progress scapular strengthening exercises
- Wean from Sling completely
- Begin isometrics of rotator cuff and periscapular muscles

Phase III – Moderate strengthening (week 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 of objects (no heavier than 5 lbs.)
- No sudden lifting or pushing activities
- No sudden jerking motions

Criteria for progression to the next phase (IV):
- Tolerates AA/AROM
- Has achieved at least 140 degrees AROM flexion supine
- Has achieved at least 120 degrees AROM abduction supine.
- Be able to actively elevate shoulder against gravity with good mechanics to least 120 degrees.

WEEK 6:

- Increase anti-gravity forward flexion, abduction as appropriate
- 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
- Initiate assisted IR behind back
- Begin light functional activities

WEEK 8

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

WEEK 10-12:

- Begin resisted flexion, Abduction, External rotation (therabands/sport cords)
- Continue progressing internal and external strengthening
- Progress internal rotation behind back from AAROM to AROM as ROM allows (pay particular attention as to avoid stress on the anterior capsule.)

Phase IV – Advanced strengthening (weeks 12 to 6 months):

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
- Gradual return to moderately challenging functional activities.

4-6 months –

return to recreational hobbies, gardening

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