

# POST-OPERATIVE REHABILITATION PROTOCOL FOR ARTHROSCOPIC ROTATOR CUFF REPAIR (SMALL TEAR)



## GENERAL GUIDELINES:

- Progression of resistive exercise and ROM is dependent on patient tolerance.
- Resistance exercise should not be performed with specific shoulder joint pain or pain over the incision site.
- A sling is provided to the patient for support as needed with daily activities and to wear at night. The patient is weaned from the sling as tolerated and under the direction of the referring surgeon.
- Early home exercises given to the patient following surgery including stomach rubs, sawing, and distal gripping activity
- Progression to AROM against gravity and duration of sling use is predicated on the size of the rotator cuff tear, quality of the tissue and fixation.

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## POST-OP WEEKS 2 - 5:

1. Early PROM to patient tolerance during the first 4-6 weeks:
  - a. flexion
  - b. scapular and coronal plane abduction
  - c. IR/ER with 90 to 45 degrees abduction
2. Mobilization of the glenohumeral joint and scapulothoracic joint. Passive stretching of elbow, forearm, and wrist to terminal ranges.
3. Side lying scapular protraction/retraction resistance to encourage early serratus anterior and lower trapezius activation and endurance.

4. Home exercise instruction:

- a. instruction in PROM and AAROM home exercises with T-bar, pulleys, and or opposite arm assistance in supine position using ROM to patient tolerance.
- b. weight bearing (closed chain) Codman's exercise instruction over a ball or counter-top/table.
- c. therapy for grip strength maintenance

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**POST-OP WEEK 6:**

1. Continue above shoulder ROM program to patient tolerance. Progress patient to active ROM. Progression to full PROM and AROM in all planes including ER and IR in neutral adduction progressing from the 90 degree abducted position used initially post-op.

2. Add Upper Body Ergometer (UBE) if available.

3. Begin active scapular strengthening exercises and continue side lying manual scapular stabilization exercise:

- a. scapular retraction
- b. scapular retraction with depression (Robbery)

4. Initiate isometric and isotonic resistance exercise focusing on the following movements:

- a. standing external/internal rotation isometric step-outs with elastic resistance
- b. side lying ER
- c. prone extension
- d. prone horizontal abduction (limited range to 45 degrees) (8wks post-op)
- e. side lying flexion to 90 degrees (Cools)

\*\* A low resistance/high repetition (i.e.: 30-45 reps) format is recommended using no resistance initially (ie weight of the arm).

5. Begin resistive exercise for total arm strength using positions with glenohumeral joint

Completely supported including:

- a. bicep curls
- b. tricep curls
- c. wrist curls – flexion, extension, radial and ulnar deviation

6. Begin submaximal rhythmic stabilization using the balance point position (90-100 degrees of elevation) in supine position to initiate dynamic stabilization.
7. Home exercise program for strengthening the rotator cuff and scapular musculature with isotonic weights and/or elastic tubing (Theraband).

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**POST-OP WEEK 10:**

1. External rotation oscillation (resisted ER with towel roll under axilla and oscillation device).
2. Begin closed chain rhythmic stabilization in the scapular plane with 90 degrees of glenohumeral joint elevation using a physio ball.

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**POST-OP WEEK 12 (3 MONTHS):**

1. Initiate upper extremity plyometric chest passes and functional two-hand rotation tennis groundstroke or golf swing simulation using small exercise ball progressing to light medicine ball as tolerated.
2. Progression to 90 degree abducted rotational training in patients returning to overhead work or sport activity.
  - a. prone external rotation
  - b. standing external/internal rotation with 90 degrees abduction in the scapular plane
  - c. statue of liberty (external rotation oscillation)
3. Re-evaluation of strength with isometric IR/ER strength (at side), goniometric range of motion (active and passive ROM), and functional outcome measures

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**POST-OP WEEK 16 (4 MOS):**

1. Initiation of submaximal isokinetic exercise for IR/ER in the modified neutral position.  
**\*\* Criterion for progression to isokinetic exercise:**
  - a. patient has IR/ER ROM greater than that used during the isokinetic exercise
  - b. patient can complete isotonic exercise program pain-free with a 2- 3# weight or medium resistance surgical tubing or Theraband

2. Integration of functional training using sport simulation patterns and submaximal plyometric exercise to prepare the patient for return to work and functional / sport activity.

3. Progression to maximal isokinetics in IR/ER and isokinetic testing to assess strength in modified base 30/30/30 position. Formal documentation of AROM, PROM, and shoulder rating scales.

4. Begin interval return programs if criterion has been met below:

- a. IR/ER strength minimum of 85% of contralateral extremity
- b. ER/IR ratio 60% or higher
- c. Pain-free range of motion
- d. Negative impingement and instability signs during clinical exam

5. Preparation for discharge from formal physical therapy to home program phase.

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