

Physical Therapy Protocol: Massive RCR

Philosophy:

The massive rotator cuff repair protocol is a soft tissue post-op program which allows shoulder patients to recover as safely as possible (>5cm tear was repaired). If the subscapularis is repaired concomitantly, then limit ER to 30, no cross-body adduction, and no active IR x12 weeks. The emphasis for these individuals is progression to work/sport-specific activities as quickly and safely as possible. These are mainly arthroscopic repairs and so they are progressed slower than open repairs to prevent the most common cause of failure (loss of fixation). An excellent result cannot be established without the patient following the therapist's instructions.

[If this is a Worker's Compensation patient who needs to return to a physically demanding job, a Brief Function Assessment (BFA) should be scheduled upon MD approval at post-op week 16-18. If the patient fails BFA, consider work hardening program.]

Phase I, surgery to 6 weeks

Appointments:

- Medical appointment at 5-14d with films
- Rehabilitation will begin as directed by your physician and as indicated on your rehabilitation order

Rehabilitation Goals:

- Protect the arthroscopically-repaired shoulder
- Cryotherapy unit to the shoulder: twenty minutes every two hours to reduce swelling
- PROM for shoulder flexion, abduction, IR to abdomen, and ER to neutral
- Limited removal of the sling in safe environments at 10-14 days

Precautions:

- True PROM only (repaired tendon needs to heal back to the bone!)
- No canes or pulleys (these are active-assist exercises)

Range-of-Motion Exercises:

- Max ROM FF to 140°
- Max ER to 40°
- Max abduction 80° without rotation

Suggested Therapeutic Exercises:

- Heat before, ice after PT

- Hand gripping
- Elbow, forearm and wrist ROM
- Side lying scapular clock with progression to manually resisted shoulder protraction/retraction
- Desensitization for axillary n distribution
- Postural exercises
- By week 3, advance to sub-maximum rhythmic stabilization, scapular protraction in supine and side-lying
- By week 4, advance to T-bar ER/IR performed while sitting, and standing T-bar abduction in scapular plane, biceps/triceps resistive exercises
- By week 5, advance to T-bar ER/IR while standing, submaximal rhythmic stabilization supine ER/IR at 45° abd, progress to standing

Cardiovascular Exercises (with sling on):

- Walking or stationary bike

Progression Criteria:

- Negative impingement pain or shoulder apprehension

Phase II, (after Phase I criteria met, usually 6-12 weeks)

Appointments:

- MD appointment at 6 weeks
- Rehabilitation appointments every 5-7 days

Rehabilitation Goals:

- Full shoulder ROM in all planes, with eventual normal scapulothoracic movement
- Begin scapular exercises, PREs for pecs, lats, large muscle groups
- Full discontinuation of sling

Precautions:

- Begin LIGHT end-range passive stretching

Suggested Therapeutic Exercises:

- Scapular PREs
- Prone extension/horizontal abduction to 45°, with progression to 90°
- Prone row at 30° abduction to neutral, with progression to 45°
- Resisted ER/IR in neutral with tubing and progress to side-lying ER as tol
- AROM in plan of scapula with elbow flexed, max flex/abd to 90°
- By week 8, advance to AROM in plane of scapula with elbow flexed, limited to 90°, UBC light resistance, resisted ER/IR in neutral with tubing & progress to side-lying ER as tol

- By week 10, progress to AROM long level arms, weight bearing/closed chain exercises: wall push-ups and 4-point hand walking

Progression Criteria:

- Full shoulder ROM

Phase III, (after Phase II criteria met, usually 12-18 weeks)

Appointments:

- MD appointment at 12 weeks
- Rehabilitation appointments every 1-2 weeks

Rehabilitation Goals:

- Full shoulder and scapular ROM, all planes
- 5/5 RTC strength at 90° and 5/5 periscapular strength

Precautions:

- Strengthening limited to 3x/week to avoid tendinitis
- Avoid sport-specific rehab until 18 weeks
- Avoid OH motion or collision sports until 6 months

Suggested Therapeutic Exercises:

- AROM in plane of scapula with elbow flexed (limit flex/abduction to 90°)
- IR in side-lying as tol
- Resisted ER/IR in neutral with tubing and progress to side lying ER as tol
- Isometric strengthening with bands/light weights for RTC, deltoid, scap stabilizers
- At 16 weeks, advance to ER strengthening at 90° abduction
- At 18 weeks, advance to plyometric exercises
- Return to throwing/OH hitting at 6 months
- Throw from pitcher's mound at 9 months
- Return to sport is generally acceptable at 6 months after surgery, after clearance by surgeon and physical therapist/ATC

References:

- Ellenbecker TS, Manske RC, Kelley MJ. Current Concepts of Orthopaedic Physical Therapy, 3rd Edition: The Shoulder: Physical Therapy Patient Management Utilizing Current Evidence. 2011; Independent Study Course 21.2.2
- Ghodadra NS, Provencher MT, Verma NN, et al. Open, Mini-open, and All-Arthroscopic Rotator Cuff Repair Surgery: Indications and Implications for Rehabilitation. *Journal of Orthopedic & Sports Physical Therapy*. 2009;39:81-95.