

Moderate/Small Rotator Cuff Repair Protocol

Week One	Weeks Two To Three
Initial Evaluation	Evaluate
<ul style="list-style-type: none"> ➤ Passive range of motion ➤ Inspect for incisional integrity, and infection ➤ Assess RTW and sport expectations ➤ Support physician prescribed meds ➤ Discuss frequency and duration of treatment (2x/wk for 10 weeks is anticipated) 	<ul style="list-style-type: none"> ➤ Posture and position of the shoulder girdle ➤ Passive range of motion ➤ Inspect for incisional integrity, and infection ➤ Support physician prescribed meds
Patient Education	Patient Education
<p style="text-align: center;">Precautions</p> <ul style="list-style-type: none"> ➤ Sling use x 4 weeks unless otherwise determined by physician ➤ No active movement of humerus ➤ No lifting objects ➤ No supporting body weight with arms 	<ul style="list-style-type: none"> ➤ Ensure compliance with precautions as stated in week one
Therapeutic Exercise	Therapeutic Exercise
<ul style="list-style-type: none"> ➤ AAROM may include small pendulums 8-12 inches in diameter. (consider “cradle the baby” exercise) ➤ Cervical, elbow, and wrist AROM (Do not actively move the humerus) ➤ No pulley exercises 	<ul style="list-style-type: none"> ➤ Add table slides for AAROM flexion ➤ May add AAROM cane exercises for IR, ER, Flexion ➤ No pulley exercises ➤ Aquatic: May start at week 2 if incision is healed. Begin exercises in chest deep water for comfort and maximum ROM. Walking or stationary with all arm movements and ROM in standing. Buoyancy can be used to assist with PROM or AAROM.
Manual Techniques	Manual Techniques
<ul style="list-style-type: none"> ➤ PROM all planes to tolerance. IR/ER to be completed in open packed position ➤ No Jt. mobs at this time 	<ul style="list-style-type: none"> ➤ Continue PROM all planes to tolerance. IR/ER to be completed in open packed position ➤ May begin grade I/II oscillations for glenohumeral joint and scapulothoracic junction as indicated ➤ No inferior GH joint mobilization ➤ Begin incision mobilization and desensitization as indicated
Modalities	Modalities
<ul style="list-style-type: none"> ➤ Cryotherapy 	<ul style="list-style-type: none"> ➤ Any modalities as indicated
Goals	Goals
<ul style="list-style-type: none"> ➤ Maintain integrity of repair through adherence to precautions ➤ Diminish pain and inflammation ➤ PROM= Flex 90, Abd 90, IR/ER 30 in open packed position 	<ul style="list-style-type: none"> ➤ Independent with HEP for AAROM ➤ Eliminate pain and inflammation ➤ PROM= Flex 145, Abd 145, IR/ER 50 in open packed position

Weeks Four To Six	Weeks Six To Eight
Evaluate	Evaluate
<ul style="list-style-type: none"> ➤ Posture and position of the shoulder girdle ➤ Passive range of motion 	<ul style="list-style-type: none"> ➤ Assess Active Range of motion against gravity. Compensatory motion is anticipated in this phase and will likely require further strengthening for correction
Patient Education	Patient Education
<ul style="list-style-type: none"> ➤ Wean from sling ➤ Discourage use of arm for reaching or lifting objects 	<ul style="list-style-type: none"> ➤ Initiate education regarding avoidance and correction of abnormal movement patterns and posture ➤ Reassess RTW and sport expectations
Therapeutic Exercise	Therapeutic Exercise
<ul style="list-style-type: none"> ➤ May initiate pulleys as indicated for stiffness ➤ Initiate pain free AROM no resistance, in positions that eliminate compensation (prone rows, extension, side lying ER, serratus punch). ➤ Add gentle isometrics ➤ May utilize MET for AAROM ➤ No long axis AROM (straight arm raise reclined or in standing) ➤ Aquatics; Continue with ROM and walking movements. May use resistance if pain free. Transition to shallow water if no shoulder compensation with movement. Advance with closed chain exercise with kickboard and cardio exercise 	<ul style="list-style-type: none"> ➤ Progress to light PRE's adding small weights to table AROM exercises (prone rows, extension, sidelying ER, serratus punch). ➤ May utilize MET for AROM ➤ May initiate long axis arm raise type exercises ➤ Progress to UBE (standing if able for trunk stabilization) ➤ Initiate rowing and extension activities in standing positions with band, tubing or cable column resistance. ➤ Consider wall climbs, IR (towel or sleeper), and ER (doorway or clamshell) stretching as more aggressive options if stiffness is an issue ➤ Aquatics; Continue previous exercise and add stabilization exercise with ball toss.
Manual Techniques	Manual Techniques
<ul style="list-style-type: none"> ➤ May initiate pain free gentle rhythmic stabilization (IR/ER open packed) ➤ PROM all planes to tolerance progress IR/ER to 90 degrees of abduction ➤ Progress to grade III / IV Jt. Mobs as indicated ➤ May add inferior mobilization as indicated 	<ul style="list-style-type: none"> ➤ Continue rhythmic stabilization progressing to positions of end range ➤ Add manual PNF patterns with gradually increasing resistance ➤ PROM and joint mobilization as indicated
Modalities	Modalities
<ul style="list-style-type: none"> ➤ Any modalities as indicated 	<ul style="list-style-type: none"> ➤ Any modalities as indicated
Goals	Goals
<ul style="list-style-type: none"> ➤ Independent with HEP For AROM, isometrics, and or ROM activity as needed ➤ No pain at rest ➤ Full PROM 	<ul style="list-style-type: none"> ➤ Independent with HEP for PRE's and stretching as needed ➤ No pain ➤ Full AROM (anticipating some compensatory patterns)

Weeks Eight To Ten	Weeks Ten To Discharge
Evaluate	Evaluate
<ul style="list-style-type: none"> ➤ Static muscle strength (manual muscle testing) for involved musculature ➤ Quality of AROM, inspecting for compensatory patterns 	<ul style="list-style-type: none"> ➤ Address any deficits that may limit return to work or sport goals
Patient Education	Patient Education
<ul style="list-style-type: none"> ➤ Continue education regarding remaining compensatory patterns if applicable 	<ul style="list-style-type: none"> ➤ HEP compliance ➤ Consider CFA program especially in cases involving throwing athletes. Return to throwing will most likely occur between 4-5 months post-op in these cases, but may require upwards of 6 months. Progression to throwing must be approved by the operating physician
Therapeutic Exercise	Therapeutic Exercise
<ul style="list-style-type: none"> ➤ Add powerband exercises as tolerated (wall flexion, wall walks, and wall clocks) ➤ Consider variations in position that require trunk stabilization prior to extremity movement (half kneeling, quadruped, plank, supine on ½ foam roll) ➤ Initiate partial table push up (with trunk stabilization as focus rather than depth) 	<ul style="list-style-type: none"> ➤ Continue isotonic exercise for periscapular and rotator cuff musculature, progressing to shoulder height and above when indicated ➤ Continue with stretches as needed ➤ Plyometrics as applicable
Manual Techniques	Manual Techniques
<ul style="list-style-type: none"> ➤ Any manual techniques as indicated 	<ul style="list-style-type: none"> ➤ Any manual techniques as indicated
Modalities	Modalities
<ul style="list-style-type: none"> ➤ Any modalities as indicated 	<ul style="list-style-type: none"> ➤ Any modalities as indicated
Goals	Goals
<ul style="list-style-type: none"> ➤ Elimination of any compensatory issues observed in AROM ➤ 4+/5 strength (ER will likely lag behind other planes) 	<ul style="list-style-type: none"> ➤ Normal strength ➤ Return to work or sport (throwing requires physician approval) ➤ Independence with HEP

References

- Reinold MM, Escamilla RF, Wilk KE. Current concepts in the scientific and clinical rationale behind exercises for glenohumeral and scapulothoracic musculature. *J Orthop Sports Phys Ther.* 2009 Feb;39(2):105-17.
- Long JL, Ruberte Thiele RA, Skendzel JG, Jeon J, Hughes RE, Miller BS, Carpenter JE. Activation of the shoulder musculature during pendulum exercises and light activities. *J Orthop Sports Phys Ther.* 2010 Apr;40(4):230-7.
- De Mey K, Cagnie B, Danneels LA, Cools AM, Van de Velde A. Trapezius muscle timing during selected shoulder rehabilitation exercises. *J Orthop Sports Phys Ther.* 2009 Oct;39(10):743-52.
- Boettcher CE, Ginn KA, Cathers I. Which is the optimal exercise to strengthen supraspinatus? *Med Sci Sports Exerc.* 2009 Nov;41(11):1979-83.
- Castillo-Lozano R¹, Cuesta-Vargas A², Gabel CP³. Analysis of arm elevation muscle activity through different movement planes and speeds during in-water and dry-land exercise. *J Shoulder Elbow Surg.* 2014 Feb;23(2):159-65. doi: 10.1016/j.jse.2013.04.010. Epub 2013 Jul 5.

Created 2017

Revised/aquatics added 1/19

