

# Conservative/Large Rotator Cuff Repair Protocol

Week One	Weeks Two To Three
<p align="center"><b>Initial Evaluation</b></p>	<p align="center"><b>Evaluate</b></p>
<ul style="list-style-type: none"> <li>➤ Posture and position of the shoulder girdle</li> <li>➤ Passive range of motion</li> <li>➤ Inspect for signs of infection, and ensure integrity of the incision</li> <li>➤ Assess RTW and sport expectations</li> <li>➤ Support physician prescribed meds</li> <li>➤ Discuss frequency and duration of treatment (2x/wk for 12 – 16 weeks is anticipated)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Posture and position of the shoulder girdle</li> <li>➤ Passive range of motion</li> <li>➤ Inspect for incisional integrity, and infection</li> <li>➤ Support physician prescribed meds</li> </ul>
<p align="center"><b>Patient Education</b></p>	<p align="center"><b>Patient Education</b></p>
<ul style="list-style-type: none"> <li>➤ <b>Sling use x 6 weeks (typically with abduction pillow) remove only for exercises</b></li> <li>➤ <b>No active movement of humerus</b></li> <li>➤ <b>No lifting objects</b></li> <li>➤ <b>No supporting body weight with arms</b></li> </ul>	<ul style="list-style-type: none"> <li>➤ Continue sling use until 6 weeks post-op</li> <li>➤ Ensure compliance with precautions as stated in week one</li> </ul>
<p align="center"><b>Therapeutic Exercise</b></p>	<p align="center"><b>Therapeutic Exercise</b></p>
<ul style="list-style-type: none"> <li>➤ May initiate small pendulums 8-12 inches in diameter. Consider (“Cradle The Baby” in lieu of pendulums)</li> <li>➤ Cervical, elbow, and wrist AROM (Do not actively move the humerus)</li> <li>➤ No pulley exercises</li> </ul>	<ul style="list-style-type: none"> <li>➤ Add table slides for AAROM flexion</li> <li>➤ May add AAROM cane exercises for IR, ER, Flexion</li> <li>➤ No pulley exercises</li> </ul>
<p align="center"><b>Manual Techniques</b></p>	<p align="center"><b>Manual Techniques</b></p>
<ul style="list-style-type: none"> <li>➤ PROM all planes to tolerance. IR/ER in open packed position</li> <li>➤ No joint mobilization at this time</li> </ul>	<ul style="list-style-type: none"> <li>➤ Continue PROM all planes to tolerance. IR/ER to be completed in open packed position</li> <li>➤ May begin grade I/II oscillations for glenohumeral joint and scapulothoracic junction as indicated</li> <li>➤ No inferior GH joint mobilization</li> <li>➤ Begin incision mobilization and desensitization as indicated</li> </ul>
<p align="center"><b>Modalities</b></p>	<p align="center"><b>Modalities</b></p>
<ul style="list-style-type: none"> <li>➤ Cryotherapy</li> </ul>	<ul style="list-style-type: none"> <li>➤ Any modalities as indicated</li> </ul>
<p align="center"><b>Goals</b></p>	<p align="center"><b>Goals</b></p>
<ul style="list-style-type: none"> <li>➤ Maintain integrity of repair through adherence to precautions</li> <li>➤ Diminish pain and inflammation</li> <li>➤ PROM= Flex 90, Abd 90, IR/ER 30 in open packed position</li> </ul>	<ul style="list-style-type: none"> <li>➤ Maintain integrity of repair</li> <li>➤ Independent with HEP for AAROM</li> <li>➤ Reduce pain and inflammation</li> <li>➤ PROM: Flex and Abd to 120 Deg, IR/ER to 45 Deg in plane of scapula</li> </ul>

<b>Weeks Four To Six</b>	<b>Weeks Six To Eight</b>
<b>Evaluate</b>	<b>Evaluate</b>
<ul style="list-style-type: none"> <li>➤ Posture and position of the shoulder girdle</li> <li>➤ Passive range of motion</li> </ul>	<ul style="list-style-type: none"> <li>➤ Posture and position of the shoulder girdle</li> <li>➤ Passive range of motion</li> </ul>
<b>Patient Education</b>	<b>Patient Education</b>
<ul style="list-style-type: none"> <li>➤ Continue sling use until 6 weeks post-op</li> <li>➤ Restate precautions</li> </ul>	<ul style="list-style-type: none"> <li>➤ Wean from sling</li> <li>➤ Discourage use of arm for reaching or lifting objects</li> </ul>
<b>Therapeutic Exercise</b>	<b>Therapeutic Exercise</b>
<ul style="list-style-type: none"> <li>➤ May initiate pulleys as indicated for stiffness</li> </ul>	<ul style="list-style-type: none"> <li>➤ Initiate pain free AROM no resistance, in positions that eliminate compensation (prone rows, extension, sidelying ER, serratus punch).</li> <li>➤ No long axis AROM (straight arm raise reclined or in standing)</li> <li>➤ Add gentle isometrics</li> <li>➤ May utilize MET for AAROM</li> </ul>
<b>Manual Techniques</b>	<b>Manual Techniques</b>
<ul style="list-style-type: none"> <li>➤ PROM all planes to tolerance. IR/ER to be completed in plane of scapula</li> <li>➤ Progress to grade III / IV Jt. Mobs as indicated</li> <li>➤ Avoid inferior GH mobilizations</li> <li>➤ Continue gentle mobilization and desensitization of incision as indicated</li> </ul>	<ul style="list-style-type: none"> <li>➤ May initiate pain free gentle rhythmic stabilization (IR/ER open packed)</li> <li>➤ PROM all planes to tolerance progress IR/ER to 90 degrees of abduction</li> <li>➤ Continue grade III / IV Jt. Mobs as indicated</li> <li>➤ Avoid inferior GH mobilizations</li> </ul>
<b>Modalities</b>	<b>Modalities</b>
<ul style="list-style-type: none"> <li>➤ Any modalities as indicated</li> </ul>	<ul style="list-style-type: none"> <li>➤ Any modalities as indicated</li> </ul>
<b>Goals</b>	<b>Goals</b>
<ul style="list-style-type: none"> <li>➤ Maintain integrity of repair</li> <li>➤ Eliminate pain and inflammation</li> <li>➤ PROM= Flex 145, Abd 145, IR/ER 50 in open packed position</li> </ul>	<ul style="list-style-type: none"> <li>➤ Independent with HEP For AROM, isometrics, and or ROM activity as needed</li> <li>➤ No pain at rest</li> <li>➤ Full PROM</li> </ul>

Weeks Eight To Twelve	Weeks Twelve To Discharge
<b>Evaluate</b>	<b>Evaluate</b>
<ul style="list-style-type: none"> <li>➤ Posture and position of the shoulder girdle</li> <li>➤ Passive range of motion</li> <li>➤ Assess active range of motion against gravity. Compensatory motion is anticipated in this phase and will likely require further strengthening for correction</li> <li>➤ <b>Anticipate initiating isolated cuff strengthening 10 weeks or later for Dr. Thut patients</b></li> </ul>	<ul style="list-style-type: none"> <li>➤ Static muscle strength (manual muscle testing) for involved musculature</li> <li>➤ Quality of AROM, inspecting for compensatory patterns</li> <li>➤ Address any deficits that may limit return to work or sport goals</li> <li>➤ HEP compliance</li> </ul>
<b>Patient Education</b>	<b>Patient Education</b>
<ul style="list-style-type: none"> <li>➤ Continue education regarding remaining compensatory patterns if applicable</li> </ul>	<ul style="list-style-type: none"> <li>➤ 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</li> </ul>
<b>Therapeutic Exercise</b>	<b>Therapeutic Exercise</b>
<ul style="list-style-type: none"> <li>➤ Progress to light PRE's adding small weights to table AROM exercises (prone rows, extension, sidelying ER, serratus punch).</li> <li>➤ May utilize MET for AROM</li> <li>➤ May initiate long axis arm raise type exercises</li> <li>➤ Initiate UBE (standing if able)</li> <li>➤ Initiate rowing and straight arm extension in standing with light resistance.</li> <li>➤ Consider wall climbs, IR (towel or sleeper), and ER (doorway or clamshell) stretching as more aggressive options if lacking PROM is an issue</li> </ul>	<ul style="list-style-type: none"> <li>➤ Add powerband exercises as tolerated (wall flexion, wall walks, and wall clocks)</li> <li>➤ Consider variations in position that require trunk stabilization prior to extremity movement (half kneeling, quadruped, plank, supine on ½ foam roll)</li> <li>➤ Initiate partial table push up (with trunk stabilization as focus rather than depth)</li> <li>➤ Continue isotonic exercise for periscapular and rotator cuff musculature. progress to shoulder height and above when full AROM without compensation</li> <li>➤ Continue with stretches as needed</li> <li>➤ Plyometrics if applicable</li> </ul>
<b>Manual Techniques</b>	<b>Manual Techniques</b>
<ul style="list-style-type: none"> <li>➤ Continue rhythmic stabilization progressing to positions of end range</li> <li>➤ Add manual PNF patterns with gradually increasing resistance</li> <li>➤ PROM and joint mobilization as indicated</li> </ul>	<ul style="list-style-type: none"> <li>➤ Any manual techniques as indicated</li> </ul>
<b>Modalities</b>	<b>Modalities</b>
<ul style="list-style-type: none"> <li>➤ Any modalities as indicated</li> </ul>	<ul style="list-style-type: none"> <li>➤ Any modalities as indicated</li> </ul>
<b>Goals</b>	<b>Goals</b>
<ul style="list-style-type: none"> <li>➤ Independent with HEP for PRE's and stretching as needed</li> <li>➤ No pain</li> <li>➤ Full AROM (eliminate compensatory patterns by week 10-12)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Normal strength (likely week 16 or later)</li> <li>➤ Return to work or sport (throwing requires physician approval)</li> <li>➤ Independence with HEP</li> </ul>

## References

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- 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.
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