

## University Orthopaedics RTC Repair (Medium to Large Tear) Rehabilitation Timeline

		<i>Timeline</i>
<b>Sling:</b>	Discharge sling after 4-8 weeks if patient is pain-free at rest	4-8 weeks
<b>PROM:</b>	<ul style="list-style-type: none"> <li>• Shoulder Flexion: 0 - 120 degrees</li> <li>• Shoulder Flexion: 0 - 140 degrees</li> <li>• Shoulder POS: 0 - 130 degrees</li> <li>ER: 60 degs / IR: 40 degs (@ 45 degs POS)</li> <li>• Shoulder Flexion/POS: 145 degs</li> <li>ER: 70 degs / IR: 40 degs (@ 45 degs POS)</li> <li>• Shoulder Flexion/POS: 150 degs</li> <li>ER: 75 degs / IR: 45 degs (@ 60 degs POS)</li> <li>• Shoulder Full PROM</li> </ul>	0 - 2 week 2 - 4 weeks  4 - 6 weeks  6 - 8 weeks  8 - 12 weeks
<b>AROM:</b>	<ul style="list-style-type: none"> <li>• Shoulder Flexion/POS: 135 degs</li> <li>ER: 60 degs / IR: 35 degs (@ 60 degs POS)</li> <li>• Shoulder Flexion/POS: 150 degs</li> <li>ER: 70 degs / IR: 45 degs (@ 60 degs POS)</li> </ul>	6 - 8 weeks  8 - 12 weeks
<b>Muscle Strength</b>	<b>NO ACTIVE FIRING OF REPAIRED RTC MUSCULATURE</b> 4- /5 throughout shoulder, except repaired tissue 3-5 4+ /5 throughout shoulder, except repaired tissue 4-5 60% -80% through repaired tissue 100% through repaired tissue	4 - 6 weeks 8 weeks 12 weeks 4 - 6 months 6 - 8 months
<b>Functional Goals:</b>	Return to LE Sports (soccer, running, etc) Return to UE Sports (basketball, tennis, baseball, etc)	4-8 months 6 - 9 months

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**University Place Orthopaedics**  
**RTC Repair (Medium to Large Tear) Rehabilitation Protocol**  
*Phase I Weeks 0-4*

<b>Goals</b> By End of Week 4	<ul style="list-style-type: none"> <li>Control Inflammation / Pain</li> <li>Allow healing of surgically repaired tissue</li> <li>PROM: Flexion- 140 degs, POS- 130 degs, ER- 60 degs, IR- 40 degs.</li> <li>Normal glenohumeral joint mobility</li> <li>Prevent atrophy of forearm and scapular musculature</li> <li>Discharge sling by 4-6 weeks</li> </ul>	
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>Pain</li> <li>Surgical Portals</li> <li>Glenohumeral Joint Mobility</li> <li>PROM</li> </ul>	<b>Goals</b> Controlled Healing w/o infection Normal Flexion- 140 degs POS- 130 degs ER- 60 degs (@45 degs POS) IR- 40 degs (@45 degs POS)
<b>Treatment</b> Week 0 - 2 3-4 x's/day 3-4x's/day by Therapist 2-3 x's day pm	<b>AAROM</b> Puleys (Shoulder flexion only) Pendulum Exercises ( cw, ccw, flexion/extension)  <b>Strengthening</b> Wrist/Hand PRE's  <b>Joint Mobilization</b> Posterior / Inferior glides (grade I & II, for pain control) PROM - flexion and ER  <b>Modalities</b> EMS to RTC musculature (10 on / 20 off) Cold Pack/Interferential Stimulation	x 30 reps x 30 reps  3 x 10 reps  5 minutes  12 mins. 15 mins
Week 2 - 4 3-4 x's/day 3-4x's/day by Therapist 2-3 x's day pm	<b>AAROM</b> Puleys (Shoulder flexion) Puleys (Shoulder POS) → pain-free motion Pendulum Exercises ( cw, ccw, flexion/extension)  <b>Strengthening</b> Wrist/Hand PRE's Scapular Retraction Isometrics Cardiovascular training for LE's  <b>Joint Mobilization</b> Posterior / Inferior glides (grade I & II, for pain control) PROM - flexion, POS, and ER  <b>Modalities</b> EMS to RTC musculature (10 on / 20 off) Cold Pack/Interferential Stimulation	x 30 reps x 30 reps x 30 reps  3 x 10 reps 3 x 10 reps 15+ minutes  5 minutes  12 mins. 15 mins

\*\*\* NO ACTIVE FIRING OF REPAIRED RTC MUSCLES FOR 4-6 WEEKS \*\*\*

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 Phase 2 Weeks 4 - 8

<b>Goals</b> By End of Week 8	<ul style="list-style-type: none"> <li>• Control Inflammation / Pain</li> <li>• PROM: Flexion/POS- 150 degs, ER- 75 degs, IR- 45 degs</li> <li>• Normal glenohumeral joint mobility</li> <li>• Muscle Strength - 4-15 throughout shoulder musculature, except repaired tissue 3-15</li> <li>• Mild scapulothoracic rhythm imbalances</li> <li>• Discharge sling by 8 weeks</li> </ul>	
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Pain</li> <li>• Muscle Strength</li> <li>• Glenohumeral Joint Mobility</li> <li>• Scapulothoracic Rhythm</li> <li>• PROM</li> </ul>	Goals Controlled → Eliminated 4-15 MMT, except RTC- 3-15 Normal Mild imbalance Flexion- 150 degs POS- 150 degs ER- 75 degs (@90 degs POS) IR- 45 degs (@60 degs POS)
<b>Treatment</b>  Week 4 - 8  1 - 2 x's/day  1 - 2 x's/day           by Therapist   2-3 x's day pm	<p><b>AAROM</b>                  Pulleys (Shoulder flexion/POS)                  Table Stretch for external rotation                  Supine Cane Exercise (flexion)</p> <p><b>Strengthening</b>                  Wrist/Hand PRE's  <b>ISOMETRICS</b>                  a) Internal/External Rotation (submaximal)                  b) Shoulder flexion, abduction, extension, adduction                  PRE's                  a) Scapular Retractions                  b) Scapular Protractions (serratus punch)</p> <p><b>Proprioception</b>                  PNF Scapular Patterns</p> <p><b>Joint Mobilization/PROM</b>                  Posterior / Inferior / Anterior glides (grade I -III)                  PROM - flexion, POS, ER, and light IR</p> <p><b>Modalities</b>                  EMS to RTC musculature (10 on / 20 off)                  Cold Pack</p>	<p>x 30 reps                  x 10 reps/Hold 10 secs                  x 15 reps/Hold 5 secs</p> <p>3 x 10 reps/Hold 2 secs</p> <p>x 20 reps / Hold 10 secs                  x 20 reps / Hold 10 secs</p> <p>3 x 10 reps/Hold 2 secs                  3 x 10 reps/Hold 2 secs</p> <p>5 minutes</p> <p>12 mins.                  15 mins</p>
Week 8 - 8  1 - 2 x's/day  3 - 4 x's/week           3 - 4 x's/week   by Therapist  pm	<p><b>AAROM</b>                  Table Stretch for external rotation                  Towel Stretch for internal rotation                  Supine Cane Exercise (flexion)</p> <p><b>Strengthening</b>                  PRE's                  a) Scapular Retractions                  b) Scapular Protractions (serratus punch)                  c) Internal/External Rotation                  d) Plane of Scapula                  e) Supraspinatus                  f) Shoulder Flexion                  g) Bicep / Tricep</p> <p><b>Proprioception</b>                  PNF GHJ (rhythmic stabilization → diagonal patterns)                  Closed Kinetic Chain exercises for scapular and GHJ dynamic stabilization</p> <p><b>Joint Mobilization</b>                  Posterior / Inferior / Anterior glides (grade III &amp; IV - if limitations)                  PROM - flexion, POS, ER, and IR</p> <p><b>Modalities</b>                  Cold Pack</p>	<p>x 10 reps/Hold 10 secs                  x 10 reps/Hold 10 secs                  x 15 reps/Hold 5 secs</p> <p>3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs                  3 x 10-12 reps/Hold 2 secs</p> <p>5 minutes                  5 minutes</p> <p>15 mins</p>

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*Phase 3 Weeks 8 - 12*

<b>Goals</b>  By End of Week 12	<ul style="list-style-type: none"> <li>• Eliminate Pain</li> <li>• PROM: WNL</li> <li>• AROM: Flexion/POS- 150 degs, ER- 70 degs, IR- 45 degs</li> <li>• Normal glenohumeral joint mobility</li> <li>• Muscle Strength - 4+/5 throughout shoulder musculature, except repaired tissue 4-/5</li> <li>• Mild scapulohumeral rhythm imbalances</li> </ul>	
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Pain</li> <li>• PROM</li> <li>• AROM</li>   <li>• Muscle Strength</li> <li>• Glenohumeral Joint Mobility</li> <li>• Scapulohumeral Rhythm</li> </ul>	<b>Goals</b> Controlled → Eliminated WNL Flexion/Abduction- 150 degs ER-70 degs IR- 45 degs 4+/5 MMT, except RTC 4-/5 Normal Mild Imbalances
<b>Treatment</b>  Week 8 - 10  3-4 x's/week  by Therapist  pm	<p><b>Strengthening</b>          PRE's</p> <ol style="list-style-type: none"> <li>a) Scapular Retractions</li> <li>b) Scapular Protractions (serratus punch)</li> <li>c) Internal/External Rotation</li> <li>d) Plane of Scapula</li> <li>e) Supraspinatus</li> <li>f) Shoulder flexion</li> <li>g) Bicep / Tricep</li> </ol> <p><b>Proprioception</b>          PNF GHJ (diagonal patterns w/ resistance)          Closed Kinetic Chain exercises for scapular and GHJ dynamic stabilization</p> <p><b>Joint Mobilization</b>          Posterior / Inferior / Anterior glides (grade III &amp; IV - if limitations)          PROM - flexion, POS, ER, and IR</p> <p><b>Modalities</b>          Cold Pack</p>	<p>3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs</p> <p>3 x 10 reps/ Hold 2 secs          5 minutes</p> <p>15 mins</p>
Week 10 - 12  3-4 x's/week  by Therapist  pm	<p><b>Strengthening</b>          PRE's</p> <ol style="list-style-type: none"> <li>a) CYBEX - Scapular Row Machine</li> <li>b) Scapular Protractions (serratus punch)</li> <li>c) Internal/External Rotation</li> <li>d) Plane of Scapula</li> <li>e) Supraspinatus</li> <li>f) Shoulder flexion</li> <li>g) Bicep / Tricep</li> <li>h) Latissimus Pull</li> <li>i) Shoulder Press</li> <li>j) UBE (forward / backward - 90 rpm's)</li> <li>k) CYBEX 6000 - RTC Strengthening: (@90, 120, 180, 240 degs/sec)</li> </ol> <p><b>Proprioception</b>          Closed Kinetic Chain exercises for scapular and GHJ dynamic stabilization</p> <p><b>Joint Mobilization</b>          Posterior / Inferior / Anterior glides (grade III &amp; IV - if limitations)          PROM - flexion, POS, ER, and IR</p> <p><b>Modalities</b>          Cold Pack</p>	<p>3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          3 x 10-15 reps/Hold 2 secs          5-10 minutes          3 sets x 15 reps each speed</p> <p>5 minutes</p> <p>15 mins</p>

