

# LARGE-MASSIVE ROTATOR CUFF REPAIR GUIDELINE



## Summary of Recommendations

Risk Factors	<ul style="list-style-type: none"> <li>• Low preoperative functional level</li> <li>• Poorer preoperative active ER</li> <li>• Younger age</li> <li>• Lower education level</li> <li>• Workman's comp claims</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>• Sling use for 6 weeks</li> <li>• <b>No PROM into pain</b></li> <li>• Start physical therapy at 4-6 weeks</li> <li>• <b>Subscapularis repair (12 weeks)</b> <ul style="list-style-type: none"> <li>◦ No cross body adduction</li> <li>◦ No active IR or IR behind back</li> <li>◦ No supporting of body weight on affected side (i.e. pushing up from chair)</li> </ul> </li> </ul>
Manual Therapy	<ul style="list-style-type: none"> <li>• <b>Week 0-4:</b> continue post-operative home exercises (wrist and hand, pendulums, scap squeeze)</li> <li>• <b>Week 4-6:</b> posterior and caudal GH mobilizations, soft tissue mobilization as appropriate</li> <li>• <b>Week &gt;6:</b> PROM, soft tissue and joint mobilization as appropriate</li> </ul>
Corrective Interventions	<ul style="list-style-type: none"> <li>• Pain and edema control modalities</li> <li>• Manual for glenohumeral and scapular mobility and shoulder ROM</li> <li>• Therapeutic exercise and neuromuscular re-education for UE strength, control and postural stability</li> <li>• Therapeutic activity for return to work simulations to increase strength and endurance</li> <li>• Sport-specific activity training</li> </ul>
Outcome Testing	<ul style="list-style-type: none"> <li>• Disability of Arm, Shoulder, Hand (DASH)</li> <li>• Quick DASH</li> </ul>
Criteria for Discharge	<ul style="list-style-type: none"> <li>• Full AROM with no scapular substitution</li> <li>• 5/5 MMT RTC strength</li> <li>• 65-70% IR/ER isokinetic testing</li> </ul>

## Phase 1: Protection (Beginning Week 4-6)

ROM	<ul style="list-style-type: none"> <li>• Continue PROM <ul style="list-style-type: none"> <li>◦ Begin PROM in flexion and external rotation only</li> <li>◦ Do NOT push into pain</li> </ul> </li> <li>• Shoulder joint mobilizations (grade II-III) – posterior and caudal</li> <li>• Scapular mobilization</li> <li>• Pectoralis minor flexibility <ul style="list-style-type: none"> <li>◦ Supine postural stretch</li> <li>◦ Passive therapist overpressure</li> </ul> </li> <li>• Begin wand exercises in a seated position <ul style="list-style-type: none"> <li>◦ Shoulder external rotation</li> <li>◦ Shoulder flexion with physician's authorization</li> </ul> </li> </ul>
Strengthening	<ul style="list-style-type: none"> <li>• Begin isotonic scapular retraction/protraction <ul style="list-style-type: none"> <li>◦ Serratus punches</li> <li>◦ PNF patterns in sidelying (scapular clock)</li> <li>◦ Sitting retraction</li> </ul> </li> <li>• Begin manual resistance scapular stabilization (sitting, side lying) <ul style="list-style-type: none"> <li>◦ Rows, pulldowns – light resistance</li> </ul> </li> </ul>
Modalities	<ul style="list-style-type: none"> <li>• Ice and pain modalities as indicated</li> </ul>
Criteria for Progression	<ul style="list-style-type: none"> <li>• Decrease pain</li> <li>• Full PROM supine</li> <li>• Sleeping through the night</li> <li>• Normal posture</li> </ul>

## Phase 2

### Weeks 6-8--discontinue sling per physician

ROM	<ul style="list-style-type: none"> <li>• AAROM per patient tolerance - adding abduction, horizontal abduction (maintain subscapularis precautions)</li> <li>• Ball on wall, UE swiss ball mobility –IR/ER</li> <li>• Towel wipes on table – any direction</li> </ul>
Strengthening	<ul style="list-style-type: none"> <li>• Closed-chain stability – elbow extension with hand on ball performing oscillations</li> <li>• Progress scapular neuromuscular strengthening <ul style="list-style-type: none"> <li>◦ Initiate <b>SUB-MAX/50% effort</b> strengthening</li> <li>◦ Isometric flexion, extension, abduction, ER, IR</li> <li>◦ Isometric lower trap</li> </ul> </li> </ul>

## Weeks 8-10

ROM	<ul style="list-style-type: none"> <li>• AROM per patient tolerance; avoid scapular substitution</li> </ul>
Strengthening	<ul style="list-style-type: none"> <li>• UBE light resistance</li> <li>• Begin prone exercise program <u>no weight, below shoulder level</u> <ul style="list-style-type: none"> <li>◦ Row</li> <li>◦ Shoulder extension</li> <li>◦ Continue scapular strengthening progression</li> </ul> </li> <li>• Begin closed chain UE activities <ul style="list-style-type: none"> <li>◦ Towel wipes on wall – horizontal, diagonal and vertical</li> <li>◦ Quadruped weight-shifts</li> </ul> </li> </ul>

## Weeks 10-12

ROM	<ul style="list-style-type: none"> <li>• Continue AROM per patient tolerance</li> <li>• Add gentle IR stretching</li> </ul>
Strengthening	<ul style="list-style-type: none"> <li>• UBE moderate resistance</li> <li>• Continue isometric strengthening</li> <li>• Dynamic isometric walk-outs</li> <li>• Progress prone exercise program <u>no weight</u> <ul style="list-style-type: none"> <li>◦ Row</li> <li>◦ Shoulder extension</li> </ul> </li> <li>• Progress closed chain UE activities</li> <li>• Seated press-up</li> <li>• Serratus punches</li> <li>• Proprioceptive exercises</li> <li>• Ball on wall</li> <li>• Supine ABC's</li> </ul>
Goals for Progression	<ul style="list-style-type: none"> <li>• Full AROM with no scapular substitution</li> <li>• No reactive inflammation with strengthening</li> <li>• Return to full ADLs pain free</li> </ul>

## Phase 3

Strengthening	<ul style="list-style-type: none"> <li>• T-band exercises <ul style="list-style-type: none"> <li>◦ Shoulder IR/ER</li> <li>◦ Horizontal abduction/adduction</li> <li>◦ Diagonal patterns</li> </ul> </li> <li>• Begin Prone exercise program <u>with weight</u> <ul style="list-style-type: none"> <li>◦ Row</li> <li>◦ Shoulder extension</li> <li>◦ Horizontal abduction – T exercise position</li> <li>◦ Lower trapezius – Y exercise position</li> </ul> </li> <li>• Begin rhythmic stabilization exercises supine, starting at balance point position (90-100 degrees of elevation); progress to side lying, prone, standing</li> <li>• Functional eccentric strengthening <ul style="list-style-type: none"> <li>◦ Decelerations</li> </ul> </li> <li>• Progress closed chain UE strengthening</li> </ul>
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	<ul style="list-style-type: none"> <li>○ Push up with a plus</li> <li>○ Swiss ball activities</li> <li>○ Plank BOSU weight shifts</li> <li>● Trunk and lower extremity strengthening</li> </ul>
Goals for Progression	<ul style="list-style-type: none"> <li>● Full AROM with no scapular substitution between weeks 10-12</li> <li>● 5/5 rotator cuff strength</li> <li>● 65-70% IR/ER isokinetic testing</li> </ul>

## Phase 4—return to sport / activity

ROM	<ul style="list-style-type: none"> <li>● Emphasis on posterior capsule stretching</li> <li>● General stretching/flexibility program</li> </ul>
Strengthening	<ul style="list-style-type: none"> <li>● Progress T-band exercises</li> <li>● Progress Dumbbell Program with weight <ul style="list-style-type: none"> <li>○ Scaption</li> <li>○ Diagonal patterns</li> <li>○ Bent row</li> <li>○ Prone Retraction with ER</li> </ul> </li> <li>● Functional eccentric strengthening</li> <li>● Progress closed chain UE strengthening <ul style="list-style-type: none"> <li>○ Push up with a plus</li> <li>○ Swiss ball activities</li> </ul> </li> <li>● Continuation of trunk and lower-extremity strengthening</li> <li>● Initiation of throwing progression</li> <li>● Begin short toss and overhead endurance activities per physician release</li> <li>● Continuation of functional UE/LE strengthening and endurance activity</li> </ul>
Goals to return to sport	<ul style="list-style-type: none"> <li>● Completion of throwing progression <ul style="list-style-type: none"> <li>○ No reactive effusion, pain and/or instability</li> </ul> </li> <li>● 65-70% IR/ER isokinetic testing</li> <li>● Full functional mobility and strength</li> </ul>

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