

## ROTATOR CUFF REPAIR - LARGE/MASSIVE - SUMMARY

### General Program Outline

**ROM:** Emphasis on PROM initially. Add AAROM supine ER at wk 2. Add AAROM elevation at wk 4. Add AROM elevation at wk 6 with emphasis on avoiding shoulder shrug. Goal of functional ROM 10-12 wks

**Muscle Activation:** Important to prevent reflex disassociation, maintain muscle tone, and prevent muscle atrophy. Initiate with sub-max, pain-free isometrics and AROM as outlined in the protocol.

**Strengthening:** No aggressive strengthening for 12 wks. Goal of 85-90% strength by 5-6 months. Patients should continue with strength training for at least 1 year post-op to maximize outcome.

### ROM goals to achieve / not to exceed

	0-2 wks	2-4 wks	4-6 wks	6-8 wks	8-10 wks	10-12 wks
Flexion / scaption	Per tolerance	Per tolerance (at least 0- 90)	Per tolerance (0-110)	Per tolerance (0-130)	Unlimited (0-150)	Unlimited (0-170)
Abduction	0-45 deg	0-60 deg	0-75 deg	0-90 deg	0-120 deg	0-150 deg
ER in scapular plane	0-20 deg	0-40 deg	0-50 deg	0-60 deg	0-70	0-80 deg
IR (GH) in scapular plane	To chest	To chest	0-20 deg	0-40 deg	0-60 deg	0-70 deg
ER at 60 ABD	None	Initiate at wk 3. 0-20 deg	0-40 deg	0-50 deg	Not applicable	Not applicable
ER at 90 ABD	None	None	None	0-40 deg	0-60 deg	0-70 deg
IR at 90 ABD	None	None	None	0-20 deg	0-45 deg	0-60 deg
Extension	Neutral	Neutral	Neutral	0-20 deg	0-40 deg	0-55 deg

## Rotator Cuff Repair – Large/Massive

### Treatment Interventions

Phase I: 0-6 weeks	Phase II: 6-8 weeks	Phase III: 8-12 wks	Phase IV: 12+ wks
<p>Warm up: Pendulum or Hot pack</p> <p>Emphasis on GH passive range of motion as outlined above. AAROM ER in scapular plane at wk 4. Gentle IR PROM in scaption at wk 4. No AROM</p> <p>GH Mobilizations (in scapular plane) grade I/II for pain or muscle spasm</p> <p>Thoracic spine P-A mobilizations as needed. 0-2 wks: seated. 2-4wks: Progress to prone as tolerated</p> <p>Postural education: Avoid forward head/rounded shoulders</p> <p>Active scapular retraction, scapular depression in neutral position</p> <p>Scapular PROM in sidelying (if needed). Manual resisted scapular isometrics</p> <p>AROM elbow, wrist, hand. Gripping activities without lifting</p> <p>Cryotherapy. IFC if indicated</p>	<p>Warm up: Passive Pendulum or Hot pack or AAROM on Nustep</p> <p>Low-load long duration end-range stretch at wk 7 (if necessary) using wand and hot pack in supine for ER</p> <p>GH Mobilizations grade I/II for pain, III/IV to increase joint mobility</p> <p>Thoracic spine P-A mobilizations</p> <p>Facilitate Thoracic extension: stretch in sitting with/without overpressure (ball / towel roll/ foam roller)</p> <p>PROM with end range stretching as outlined above</p> <p>AAROM as outlined above: Pulleys, wand exercises, ball rolling on table</p> <p>Aquatics</p> <p>Postural education: Avoid forward head/rounded shoulders</p> <p>Active scapular protraction, retraction to neutral, scapular depression</p> <p>Scapular manual RROM in sidelying</p> <p>AROM elbow, wrist, hand</p> <p>Cryotherapy. IFC if indicated</p>	<p>Active warm-up: UBE with no resistance, add light resistance wk 9</p> <p>Low load long duration end-range stretch (if necessary)</p> <p>GH Mobilizations PROM with end range stretch</p> <p>Therapeutic exercises: AAROM: Pulleys, wand. Add in ext past neutral wk 7, Add in gentle IR behind the back stretch wk 10</p> <p>AROM: GH: All motions, emphasize quality movement. Focus on endurance (30 reps) Scapula: (light resistance of &lt;5 lbs with emphasis on endurance) protraction, retraction rows to neutral, depression * 4 keys exercises (max LT/MT, inh UT) sidelye ER                      sidelye flexion prone hor abd with ER   prone extension</p> <p>Muscle activation: Sub-max pain-free GH isometrics Supported Biceps / Triceps isotonics, unsupported wk 10 Rhythmic stabilization sub-max Wk 8: supine arm supported ER/IR wk 10-12: supine flexion 90 deg, low load CKC (&lt;BW) ie: ball on table</p> <p>Encourage thoracic extension</p> <p>Ice (in stretch if needed) 15 minutes E Stim (IFC or NMES) if necessary</p>	<p>Active warm-up: UBE, rower</p> <p>ROM activities as necessary</p> <p>Scapulo-thoracic strengthening: chest press (+), rows in full ROM, press down, scaption prone hor abd in neutral rotation, prone ext with ER, prone hor abd with ER prone full can, dynamic hug, serratus punch 120 deg, lat pull downs (wk 16)</p> <p>GH/RTC strengthening: flexion, scaption, press down, prone hor abd w/ ER sidelying ER, isotonic IR/ER, progress to 90/90 wk 16 if needed isokinetic IR/ER, progress to 90/90 wk 16 if needed</p> <p>Total arm strengthening: Triceps extensions, biceps curls</p> <p>PNF patterns</p> <p>Proprioceptive/Kinesthesia activities: rhythmic stabilizations, body blade</p> <p>CKC exercises: sub-max BW: quadraped (euroglide / cuff link), wall push-ups. Progress to full BW (wk 16-18): partial prone walk-outs, full prone walk-outs</p> <p>Plyometrics: bilateral progress to unilateral Cryotherapy E stim, biofeedback if necessary</p>