SMALL-MEDIUM ROTATOR CUFF REPAIR GUIDELINE

The rotator cuff is responsible for stabilization and active movement of the glenohumeral joint. An acute or overuse injury may cause the rotator cuff to be injured and varying widths of tears may cause increased pain and dysfunction of the shoulder joint. A small size rotator cuff tear is defined as a tear <1cm, medium 1-3cm. Rotator cuff repair is performed, either arthroscopically or via mini-open procedure, by suturing the torn tendon to the humerus.

Summary of Recommendations

NOTE: Progression is time and criterion-based, dependent on soft tissue healing, patient demographics, and clinician evaluation.

Risk Factors	• Avoid AROM before 6 weeks • Correct scapular substitution with AA/AROM • Smoking • Postural considerations should be addressed
Precautions	• Sling use for 4-6 weeks • Start physical therapy at week 2 • Continue post-operative home exercises until starting physical therapy • No behind back stretching x 12 weeks ***Subscapularis Repair (12 weeks)*** • No ER past 30 degrees • No cross body adduction • No active IR or IR behind back • No supporting of body weight on affected side (i.e. pushing up from chair) ***Biceps Tenodesis*** • No extension or horizontal abduction for **4-6 weeks** • No resisted elbow flexion, shoulder flexion, or supination for **6 weeks**
Manual Therapy	• **Week 2-4**: caudal GH mobilizations, PROM flexion and external rotation only, soft tissue mobilization as appropriate • **Week >4**: PROM (flexion, external rotation, internal rotation, abduction), soft tissue and joint mobilization as appropriate
Corrective Interventions	• Pain and edema control modalities • Manual for glenohumeral and scapular mobility and shoulder ROM • Therapeutic exercise and neuromuscular re-education for UE strength, control and postural stability • Therapeutic activity for return to work simulations to increase strength and endurance • Sport-specific activity training
Outcome Testing	• Disability of Arm, Shoulder, Hand (DASH) • Quick DASH
Criteria for discharge	• Full AROM with no scapular substitution • 5/5 RTC strength • 65-70% IR/ER isokinetic testing

Phase 1: Protection

Weeks 2-4	**ROM**	• Continue PROM
		  ▪ Begin PROM in abduction per patient tolerance
		• Shoulder joint mobilizations (grade II-III) – posterior and caudal
		• Scapular mobilizations
		• Pectoralis minor flexibility
		  ▪ Supine postural stretch
		• Begin shoulder IR mobility – PROM only
		• Unaffected side UBE (affected side stays in sling)
		• Begin wand exercises in a seated position
		  ▪ Shoulder external rotation
		  ▪ Shoulder flexion if not contraindicated
		• ***with Biceps Tenodesis***
		  ▪ No ER >40deg, Limit shoulder extension in frontal and sagittal planes for **4 weeks**

	Strengthening	• Begin isotonic scapular retraction/protraction
		  ▪ Supine serratus punches
		  ▪ PNF patterns in sidelying (scapular clock)
		  ▪ Sitting retraction
		• Begin manual resistance scapular stabilization (late phase)
		  ▪ Scap Squeezes, extension with light resistance

	Modalities	• Ice and pain modalities as indicated
	Goals for Progression to Next Phase	• Decrease pain • Full PROM supine • Sleeping through the night • Normal posture

Phase 2

	Sling	• D/C sling per physician
Week 4-6	**ROM**	• AAROM per patient tolerance - all motions, adding abduction, IR, horizontal abduction (maintain subscapularis precautions) • Ball on wall, UE swiss ball mobility –IR/ER • Towel wipes on table – any direction

	Strengthening	• Initiate sub-max strengthening
		  ○ Isometric flexion, extension, abduction, ER, IR
		  ○ Isometric lower trap
		  ○ Dynamic isometric walk-outs
		• Closed-chain stability – elbow extension with hand on ball or table /bench performing oscillations or small pain free weight shifts.
		• Progress scapular neuromuscular strengthening

Week 6-8	**ROM**	▪ AROM per patient tolerance; avoid scapular substitution

	Strengthening	• UBE light resistance using both UE
		• Begin prone exercise program <u>below shoulder level</u>
		  • Extension, rows
		• Begin closed chain UE activities
		  ▪ Towel wipes on wall – horizontal, diagonal and vertical

		▪ Serratus punches ▪ Quadruped weight-shifts ▪ Proprioception exercise ▪ Supine ABC's ▪ Ball on wall
	Goals for Progression to Next Phase	• Full AROM with no scapular substitution • No reactive inflammation with strengthening • Return to full ADLs pain free

Phase 3

Weeks 8-10	**Strengthening**	• UBE moderate resistance • Light T-band exercises ▪ Shoulder IR/ER ▪ Horizontal abduction/adduction ▪ Diagonal patterns • Progress prone exercise program ▪ Row ▪ Shoulder Extension ▪ Horizontal Abduction – T exercise position ▪ Lower Trap – Y exercise position • Begin rhythmic stabilization exercises supine, starting at balance point position (90-100 degrees of elevation); progress to side lying, prone, standing
	Goals for Progression to Next Phase	• Full active ROM • Trapezius substitution • Reactive inflammation with strengthening

Phase 4

Weeks 10-16	**Strengthening**	• Progress prone exercise program • Progressive Dumbbell Program – emphasis on high reps/low weight ▪ Scaption ▪ Diagonal patterns ▪ Bent row ▪ Prone Retraction with ER • Functional strengthening • Functional positions with eccentrics loads • Progress closed chain UE strengthening ▪ Push up with a plus ▪ Swiss ball activities ▪ Plank BOSU weight shifts • Trunk and lower extremity strengthening • Begin short toss and overhead endurance activities per physician release
		• Full AROM with no scapular substitution between weeks 10-12 • 5/5 rotator cuff strength • 65-70% IR/ER isokinetic testing

Phase 5 – Return to Sport / Activity

4-6 months	**ROM**	▪ Emphasis on posterior capsule stretching ▪ General stretching/flexibility program (pectorals, biceps, upper trapezius, etc.)

	Strengthening	• Progress T-band exercises
		  ▪ Begin Diagonal Patterns
		• Progress prone exercise program with weight
		  ▪ Row
		  ▪ Shoulder Extension
		  ▪ Horizontal Abduction – T exercise position
		  ▪ Lower Trap – Y exercise position
		• Progress Dumbbell Program with weight
		  ▪ Scaption
		  ▪ Diagonal patterns
		  ▪ Bent row
		  ▪ Prone Retraction with ER
		• Functional eccentric strengthening
		• Progress closed chain UE strengthening
		  ▪ Push up with a plus
		  ▪ Swiss ball activities
		• Trunk and lower-extremity strengthening
		• Initiation of throwing progression (See OSU Sports Med Throwing Program)
		• Continuation of functional UE/LE strengthening and endurance activity

	Goals to Return to Sport	• Completion of throwing progression • No reactive effusion, pain and/or instability • 65-70% IR/ER isokinetic testing

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