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REHABILITATION PROTOCOL- Shoulder anterior labral repair

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

INDIVIDUAL CONSIDERATIONS: S/p

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PHASE 1- Surgery to 2 weeks

REHAB GOALS	1. Protection of the post-surgical repair 2. Emphasize importance of sling usage 3. Minimize swelling & pain
PRECAUTIONS	1. Sling immobilization for 6 weeks, use at all times except bathing & ROM exercises 2. ROM precautions: Passive forward elevation 90, ER to neutral with <20 deg abduction. Avoid abduction, external rotation. Avoid scapular protraction for 6 weeks. 3. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session once splint removed 4. No lifting or carrying objects
RANGE OF MOTION EXERCISES	○ Active & passive wrist, hand ROM, ball squeeze, gripping ○ Supported Codman exercises ○ No stretching at this time
SUGGESTED THERAPEUTIC EXERCISES	○ As above ○ Week 2- LE and core strengthening with sling on at all times
CARDIOVASCULAR	None

EXERCISE	
PROGRESSION CRITERIA	○ Minimal/no pain ○ 100% sling compliance ○ No signs of repair failure ○ Wound healing

PHASE 2- 3-6weeks

REHAB GOALS	1. Protection of the post-surgical repair 2. Prevent contracture of hand/wrist/elbow 3. Minimize pain and swelling
PRECAUTIONS	1. Sling immobilization for 6 weeks, use at all times except bathing & ROM exercises 2. ROM precautions: Passive forward elevation 90, ER to 20 with <20 deg abduction. Avoid abduction, external rotation. 3. No scapular protraction for 6 weeks 4. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session once splint removed 5. No lifting or carrying objects. Avoid anterior shoulder/capsular stress
RANGE OF MOTION EXERCISES	○ Continue phase 1 exercises- no active ROM ○ ROM restrictions: Passive forward elevation 90, ER to 20 with <20 deg abduction. Avoid abduction, external rotation. ○ Glenohumeral/scapular mobilizations as needed in 30 deg scapular elevation, neutral rotation ○ Active assist ROM w/pulleys- can begin after week 4 as long as correct technique demonstrated. Can include flexion & ER at side via wands & wall walks with cues to avoid compensatory shoulder shrugs.
SUGGESTED THERAPEUTIC EXERCISES	○ Continue phase 1 exercises ○ Submaximal isometrics in neutral rotation & <30 abduction w/ elbow flexed to 90 ○ Closed chain exercises below 90 elevation, begin in modified wt bearing position, progress to full weight bearing by week 6 ○ T bar/cane exercises supine for active assist ROM within precautions ○ Core & hip isometrics ○ Higher level athletes may begin single LE balance with head movements, functional 1/3 squats, step ups/downs and stationary lunges ○ Scapular retraction & PNF patterns (minimal/no resistance) ○ Angular repositioning, rhythmic stabilization, repeated contractions within ROM restrictions
CARDIOVASCULAR EXERCISE	Stationary bike at week 3 while wearing sling at all times

PROGRESSION CRITERIA	○ No swelling or pain. No signs/symptoms of instability ○ Elbow, wrist & hand ROM equal to contralateral ○ PROM per ROM guidelines

PHASE 3- 7-12 weeks postop

REHAB GOALS	○ Protect surgical repair ○ Gradual restoration of ROM ○ Improve scapular, cuff strength ○ Normalize trunk & kinetic chain
PRECAUTIONS	○ ROM limitations- Weeks 7 & 8: ER at 90 abduction 45 degrees, active forward elevation 115, ER at side <50. Weeks 9-11: ER at 90 abduction 75, active forward elevation 145, ER at side <65. Week 12 no ROM limitations ○ Discontinue sling use ○ Recommend full active forward elevation before progressing to elevation in other planes or resistive elevation
RANGE OF MOTION EXERCISES	○ Continue exercises from phase 2. ○ Mobilizations as needed (esp ant/inf glides) ○ Pec minor & sleeper stretches. Lat/forward elevation stretches as needed ○ ROM limitations as above ○ Progress forward elevation from active assist to active, then resistive upright then prone
SUGGESTED THERAPEUTIC EXERCISES	○ Continue exercises from phase 2 ○ LE & core- progress strengthening. No power clean/dead lift/back squats. Front squats ok ○ Elbow flexion/extension strengthening ○ Begin rotator cuff strengthening. Start <45 elevation in plane of scapula. Progress to higher levels of elevation as tolerated. ○ PNF, body blade, manual resistive exercises ○ Strengthening of scapular retractors & upward rotators ○ Wt bearing exercise w/fixed distal segment- quadruped, quadruped w/scapular protraction, quadruped to tripod. (no pushups) ○ Rhythmic stabilization at 45 abduction in scapular plane neutral rotation. Gradually increase elevation & ER. ○ Week 10- Functional exercises ok with arms out front.
CARDIOVASCULAR EXERCISE	Stationary bike increasing resistance, treadmill walking Week 9-stairmaster, advance to elliptical (no upper body) UBE as tolerated, aqua therapy as needed
PROGRESSION CRITERIA	○ Achievement of ROM goals ○ No pain/swelling/instability ○ Normal glenohumeral & scapulothoracic mechanics

PHASE 4- 13-24 weeks postop

REHAB GOALS	○ Full ROM in all planes ○ 85% strength of contralateral ○ Improvement of strength, endurance, neuromuscular control
PRECAUTIONS	Post-activity soreness should resolve within 24 hours Avoid post activity swelling
RANGE OF MOTION EXERCISES	○ Continue with flexibility exercises from previous phase ○ Gentle end range stretching ○ LE and core flexibility ○ Mobilizations as needed
SUGGESTED THERAPEUTIC EXERCISES	○ Continue phase 3 activities. Progress with resistance/load. Add eccentric loads, beginning with ER & abduction, then progress to IR & abduction. ○ 16 weeks: thrower's exercises: ER/IR at 0 abduction (progress to IR/ER at 20 weeks), scaption ER full can, rows into ER at 90 abduction seated on stability ball, lower trap seated on stability ball, elbow flexion, elbow extension/triceps, wrist extension, wrist flexion, supination, pronation, sleeper stretch, supine horizontal adduction stretch into IR, Prone horizontal abduction neutral/full ER at 100, prone row, Diagonal pattern (D2) flexion/extension ○ Balance/proprioception- progress to unstable surface, perturbations, etc ○ Week 20- Plyometrics- LE drills, UE wall dribble, plyoback/rebounder (chest pass, ER/IR ball toss & catch) Begin with unweighted balls ○ Sport specific- LE drills in controlled environment at week 13. Week 20-med ball throws against wall, UE fitter/stepper in prone position, dribbling on wall/rebounding with one hand. Non-contact and non-overhead athletes begin sports specific drills at week 20.
CARDIOVASCULAR EXERCISE	Continue from phase 3, add upper body ergometer if needed. Walk/jog progression at week 13
PROGRESSION CRITERIA	○ Normal kinematics of GH & ST joints ○ Full painless active & passive ROM ○ Strength 85% contralateral

PHASE 5- 25+ weeks

REHAB GOALS	Return to sport
PRECAUTIONS	Post-activity soreness should resolve within 24 hours

RANGE OF MOTION EXERCISES	Continue with flexibility exercises
SUGGESTED THERAPEUTIC EXERCISES	○ Progress strengthening from phase 4 ○ Plyometrics: bilateral arm throwing patterns beginning with chest pass, progress to single arm. Overhead b/l medicine ball slams & catches. Rebounder IR/ER at 90 abduction, supine IR/ER ball catch & toss. Progress all to single arm. ○ Ok to begin sport specific overhead work for swimming, tennis, volleyball ○ Overhead athletes- Interval throwing program- Phase 1, progress to phase 2 when completed ○ Football, wrestling- ok to begin sport specific activities
CARDIOVASCULAR EXERCISE	○ Jog/run progression. Begin sprinting when able to run 2 miles without pain.
PROGRESSION CRITERIA- RETURN TO SPORT	○ Pain free, full ROM, uncompensated under fast & resisted conditions ○ 90% strength of contralateral side rotator cuff & scapular (at least 70% rotator cuff ratio). ○ Completion of throwing program/sport specific program ○ At least 90% functional closed kinetic chain tests ○ Overhead athletes with normal mechanics/form and no pain post activity ○ Return to sport likely 8-9 months for overhead athletes