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<u>REHABILITATION PROTOCOL- Shoulder arthroscopic capsular release</u>

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 (PT 5 times per week for this time period)

REHAB GOALS	1. Minimize pain and inflammation
	2. Attain range of motion achieved in the operating room
	3. Minimize contracture
PRECAUTIONS	1. Sling use until nerve block wears off (if applicable)
	2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session once splint removed
RANGE OF MOTION EXERCISES	o Scapular plane elevation in neutral, IR/ER in plane of scapula, abduction. Slow, consistent movements
	o Pendulum exercises
	o Supine elevation using opposite arm, ER/IR with cane/stick
	o Supine T towel- towels along base of head, spine to promote thoracic extension
	o CPM can be used in plane of scapula IR/ER
SUGGESTED THERAPEUTIC EXERCISES	o As above
	o Gentle shaking of extremity, joint mobilizations, massage
	o Gripping, wrist extension/flexion, forearm pronation/supination, elbow flexion/extension initially without resistance
	o Postural retraining
	o Scapular mobility side lying with UE supported in plane of scapula
CARDIOVASCULAR	Stationary bike at one week. Avoid excessive perspiration in surgical

EXERCISE	wounds
PROGRESSION CRITERIA	o No pain at rest o Controlled pain and inflammation o Achievement of postmanipulation ROM (full ROM)

PHASE 2- 2-6weeks

REHAB GOALS	1. Control pain & inflammation 2. Achieve/maintain full ROM 3. Home exercise compliance 4. Active ROM in scapular plane to shoulder level
PRECAUTIONS	1. Avoid overhead activities 2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session
RANGE OF MOTION EXERCISES	o Continue phase 1 exercises o Progress to grade 2 mobilizations o Forward flexion, IR/ER at 0, 45 and 90 deg abduction o PNF techniques o Pendulums o Pulleys when ~130 deg flexion & good control o Increase supine ROM, adding ER/IR at 90 deg abduction o Abd/ER with hands behind head
SUGGESTED THERAPEUTIC EXERCISES	o Continue phase 1 exercises o Core strengthening (avoid planks) o Lower extremity- squats (no weight), knee extension/flexion, side lying hip abduction, crab walks o Upper extremity- biceps, triceps, scapular retraction/protraction, periscapular muscles o Submaximal rotator cuff isometrics, progress to isotonics (ER side lying) if pain free o Closed chain UE physioball stabilization below shoulder height o Rhythmic stabilization exercises supine plane of scapula arm shoulder height o Scapular plane elevation (full can)
CARDIOVASCULAR EXERCISE	Stationary bike, hydrotherapy (when wounds healed), elliptical (arms below shoulder), upper body ergometry
PROGRESSION CRITERIA	o No resting/night pain o Full ROM o Normal scapulohumeral rhythm

PHASE 3- 7-10 weeks postop

REHAB GOALS	- Control pain/inflammation - Normalize scapular elevation above shoulder height - Full ROM - Avoid impingement and pain with strengthening
PRECAUTIONS	- Continue post PT ice - Avoid overhead weight bearing exercise
RANGE OF MOTION EXERCISES	- Continue exercises from phase 2. - Progress stretches to include: pec stretches, inferior capsule, sleeper stretch, posterior capsule, cane forward flexion, towel IR stretch, horizontal abd/ER behind head - Incorporate LE/core flexibility
SUGGESTED THERAPEUTIC EXERCISES	- Continue exercises from phase 2 - Core- quadruped position (alternating arm lifts, leg lifts), bridging, trunk rotation - LE- squats, knee extension/flexion, side lying hip abduction, dead lifts, monster walks, lunges - UE- Progress resistance/weight from previous phase if no pain - Progress rotator cuff strengthening from side lying to standing if no pain - UE physioball progress from bilateral to single arm at shoulder height, wall pushups - Plyometrics- incorporate ball tossing - PNF diagonal patterns - Scapular plane elevation no/light resistance
CARDIOVASCULAR EXERCISE	Stationary bike, walk/run progression, elliptical (use arms to tolerance). Swimming-modified breast stroke. Rowing-can incorporate to tolerance
PROGRESSION CRITERIA	- No pain with ADLs - Flexibility able to meet demands of sport - Strength 85% of contralateral - Normal scapulohumeral rhythm

PHASE 4- 11+ weeks postop

REHAB GOALS	- Full, pain free ROM - Normal rotator cuff ratio - Return to sport/work
PRECAUTIONS	Post-activity soreness should resolve within 24 hours Avoid post activity swelling
RANGE OF MOTION	Continue with flexibility exercises from previous phase and progress

EXERCISES	
SUGGESTED THERAPEUTIC EXERCISES	o Progress phase 3 activities with resistance/weight o Advance rotator cuff strengthening to ER/IR at 90 deg abduction standing o Incorporate sport/work specific exercises
CARDIOVASCULAR EXERCISE	Progress to baseline
PROGRESSION CRITERIA- RETURN TO SPORT/WORK	o Full pain free ROM o Normal scapulohumeral rhythm o 90% rotator cuff strength compared to contralateral o Completion of plyometrics and sport/work specific exercises