



Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

Jonathan Watson, MD

REHABILITATION PROTOCOL- AC/CC joint reconstruction

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

PHASE 1- Surgery to 2 weeks

REHAB GOALS	<ol style="list-style-type: none"> 1. Protection of the post-surgical repair 2. Emphasize importance of sling usage 3. Minimize swelling & pain
PRECAUTIONS	<ol style="list-style-type: none"> 1. Sling immobilization for 6 weeks 2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session once splint removed 3. No shoulder active ROM for the first 6 weeks
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Active & passive wrist, hand ROM, ball squeeze, gripping ○ Active & passive elbow flexion/extension without weight ○ NO pec or upper trap stretches ○ Week 2-Supported/short lever Codmans ok, under supervision. Ensure that gravity is not acting on arm to displace inferiorly
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ As above ○ Soft tissue techniques to cervical musculature, torso, parascapular & shoulder girdle ○ Week 2- LE and core strengthening with sling on at all times
CARDIOVASCULAR EXERCISE	None
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Minimal/no pain ○ 100% sling compliance ○ No signs of repair failure

PHASE 2- 2-6weeks

REHAB GOALS	<ol style="list-style-type: none"> 1. Protection of the post-surgical repair 2. Prevent contracture of hand/wrist/elbow 3. Minimize pain and swelling
PRECAUTIONS	<ol style="list-style-type: none"> 1. Sling immobilization for 6 weeks 2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session 3. No glenohumeral active ROM for 6 weeks 4. No pec/upper trap stretching
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> o Continue phase 1 exercises
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> o Continue phase 1 exercises o Core & hip isometrics o Higher level athletes may begin single LE balance with head movements, functional 1/3 squats, step ups/downs and stationary lunges
CARDIOVASCULAR EXERCISE	Stationary bike at week 3 while wearing sling at all times
PROGRESSION CRITERIA	<ul style="list-style-type: none"> o No swelling or pain o Elbow, wrist & hand ROM equal to contralateral o No signs of failure of repair

PHASE 3- 7-10 weeks postop

REHAB GOALS	<ul style="list-style-type: none"> o Protect surgical repair o Pain free passive shoulder ROM
PRECAUTIONS	<ul style="list-style-type: none"> o Limit motions that increase AC joint stress- IR behind back, cross body adduction, abduction, scapular protraction & retraction, end forward elevation o No ROM above shoulder level before week 8 o Sling use for 6 weeks, may use until week 8 for comfort
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> o Continue exercises from phase 2. o Passive glenohumeral motion to 90 flexion scapular plane o Grade 1-2 mobilizations to GH joint (no AC mobilization) o Gentle levator/pec stretches at weeks 8-10 o Active assist/active ROM only when Passive ROM within 75% of contralateral/full. ROM beginning supine, progress to upright o Rotator cuff soft tissue mobilizations if impingement developing

SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Continue exercises from phase 2 ○ LE- weights & machines (light resistance) ○ UE- closed chain table/wall slides, supine flexion/pulleys (below shoulder level) ○ Week 8-closed chain scapular & kinetic chain, seated small arc scapular depression, seated scapular retraction, biceps/triceps with weight <5lbs, body blade at side ○ Scapula PNF side lying, elbow PNF ○ Rhythmic stabilization in supine w/GH joint flexed 90 ○ High level athletes- LE low impact plyometrics & LE sport specific agility drills at week 8
CARDIOVASCULAR EXERCISE	Stationary bike increasing resistance, elliptical with LE only
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ 90 deg of passive flexion in scapular plane ○ No pain or swelling ○ Intact repair

PHASE 4- 11-14 weeks postop

REHAB GOALS	<ul style="list-style-type: none"> ○ Restore scapulohumeral rhythm ○ Optimize strength of UE ○ Full pain free active ROM by week 14
PRECAUTIONS	<p>Post-activity soreness should resolve within 24 hours</p> <p>Avoid post activity swelling</p> <p>May apply postural tape to cue parascapular muscles</p>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue with flexibility exercises from previous phase ○ LE and core flexibility ○ Manually facilitate scapulohumeral rhythm ○ Low load long duration capsular stretch if lacking end range combined Abd/IR or Abd/ER
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Continue phase 3 activities ○ Full can to 90 deg only for nonthrowers with light weights ○ Shoulder raises (flexion, abduction) to 90 with light weights ○ Biceps curls (begin supported preacher curl) ○ Hand on baps board in partial UE wt bearing, increase UE wt bearing on unstable surface ○ Progress UE resistance band with decrease base of support ○ Scapular clocks, wall protraction ○ Side lying ER ○ Week 10-prone I scapular 3 step exercise, isometric ER/IR flexion extension & abduction ○ Week 12- progress to light resistance band rotator cuff strength in

	<ul style="list-style-type: none"> ○ neutral, scapular depression & rows with light resistance band ○ GH joint PNF in supine, progress to seated ○ Body blade varying flexion, abduction & scaption angles ○ Progress LE plyometrics ○ Lawnmowers, Russian dead lifts
CARDIOVASCULAR EXERCISE	Continue from phase 3, add upper body ergometer. Jogging at week 12
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Full passive, active GH ROM ○ At least 4+/5 strength ○ No pain or swelling ○ Repair intact

PHASE 5- 15-24 weeks

REHAB GOALS	<ul style="list-style-type: none"> ○ Continue strengthening ○ Initiate sport/work specific exercises
PRECAUTIONS	<ul style="list-style-type: none"> ○ Post-activity soreness should resolve within 24 hours
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue with flexibility exercises
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Progress strengthening from phase 4 ○ Sit ups, plank progression ○ Bent over low row (light weight), progress to low and mid row machine ○ UE-full can & shoulder raises w/increase weight, biceps/triceps, kettlebell low row, chest press, seated short arc machine flys, progress to cable flys, increase resistance to rotator cuff & periscapular strengthening. Protraction progression (unilateral wall, bilateral table, bilateral half kneeling unstable surface) ○ PNF patterns with resistance bands ○ Prone scapular T and Y exercises ○ Wall push up progression ○ Progress UE weight on unstable surface, body blade in end range positions ○ Begin UE plyometrics ○ Overhead athletes-ER/IR at 0 abduction (progress to IR/ER at 90 if no pain), 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

CARDIOVASCULAR EXERCISE	<ul style="list-style-type: none"> ○ Continue to progress from phase 4. Swimming at week 16
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ 5/5 strength ○ No pain or limitation with throwing (overhead athletes)

PHASE 6- 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	<ul style="list-style-type: none"> ○ Progress strengthening from phase 5 ○ Overhead athletes- Interval throwing program- Phase 2
CARDIOVASCULAR EXERCISE	<ul style="list-style-type: none"> ○ Progress to baseline
PROGRESSION CRITERIA- RETURN TO SPORT	<ul style="list-style-type: none"> ○ Pain free, full ROM ○ 90% strength of contralateral side ○ Completion of throwing program/sport specific program ○ Contact athletes- Pain free loaded adduction symmetrical (min 6 months)