

AC Joint Reconstruction Rehabilitation Guidelines

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Progression is based on healing constraints and functional progression specific to the patient. Phases and time frames are designed to give a general sense of progression. Acute versus chronic, as well as, concomitant procedures such as SLAP repair, distal clavicle excision, and physiologic age of the patient will alter the guidelines. Importantly, the reconstruction must be protected for the first 8 weeks. Please do not hesitate to contact me with any questions or concerns.

PHASE I: Generally 0 - 8 weeks post-op

PHASE I GOALS: Protect surgical repair
Avoid a "stiff" shoulder

PRECAUTIONS: ***NO** elevation of shoulder past 90°*
*Must **ALWAYS** wear sling/immobilizer for 8 weeks, even while sleeping*
***NO** jogging/running*

SLING: Sling must be worn except during rehabilitation for the first 8 weeks after surgery

WOUND: Post-op dressing remains intact until post-op day #2 (~48 hours after surgery)
May begin showering after post-op day #2 (no need to cover incision site)
***Do NOT** submerge shoulder in tub or pool for 4 weeks*
Suture/staple removal @ 10-14 days per Ortho/PT
Begin scar massage after incision site sloughs/scar is formed

REHABILITATION: Frequent use of ice

~weeks 1-3 Elbow, Wrist, & Hand: ROM ex's, gripping, squeezing
Gentle ("Two Finger") Isometrics: light pain free resistance (all directions)
OK GENTLE PASSIVE SUPINE SCAPULAR RANGE OF MOTION

~weeks 4-6 Supine Assisted Shoulder Flexion - limited to 90° and assisted with opposite hand
Aerobic Conditioning on Stationary Bike (with sling on)
Scapular Retraction & Protraction

~weeks 7-8 Shoulder AROM exercises (Limited to 90° shoulder elevation)
Lower Extremity Weight Lifting: May begin leg & calf press, hamstring curls, hip add/abd

FOLLOW-UP: Physical Therapy: 2-3x weekly; Ortho: ~6-8 weeks post-op;
Supervised rehabilitation: 1-2 x per week as needed

DOCUMENTATION: Precautions, pain level, medications and modalities
Observation: (incision sites) - Signs/symptoms of infection? Site healing well?
Neurovascular status: Distal pulses, motor and sensation intact?
Shoulder ROM & strength

PHASE II: Generally 9-16 weeks post-op

PHASE II GOALS: ROM: Full shoulder flexion and internal rotation, ~90% full external rotation
Pain free ADLs

PRECAUTIONS: *Must wear sling/immobilizer until 10-12 weeks post-op except during rehabilitation*
***NO** repetitive overhead use of shoulder*
***NO** regular pushups, heavy lifting, or other sports participation*

REHABILITATION: Continue phase I exercises as needed
Progress to the following exercises and increase intensity gradually when patient is ready
(i.e., no increase in shoulder pain or stiffness since the previous exercise session)
*Note: all strengthening should be done, starting with low weights, high repetitions, and in
a painless ROM*

~weeks 9-12 Shoulder AAROM exercises: Wand, pulley, towel stretch, sleeper's stretch, etc.
May begin elliptical (legs only) and/or stairmaster for conditioning
ER/IR strengthening with light theraband (with towel roll under arm)

~weeks 13-16 Upper body cycle: begin with three 1-min sets (forwards and backwards) progress gradually
Shoulder AROM exercises: (add mobilizations, other manual therapy as needed)
Progressive strengthening: ER & IR with arm at side, FF & scaption to 60-90°, rows
(first set: 20 repetitions, then 1 additional set at the same weight to muscle failure)
May begin jogging (start with 5 minutes and progress gradually as tolerated)
Beginning level neuromuscular/functional training exercises (see appendix)
Beginning level shoulder stabilization exercises (see appendix)

FOLLOW-UP: Physical Therapy; Ortho: ~3 months post-op;
Supervised rehabilitation: 2-3 x per week as needed

DOCUMENTATION: Pain level, medications, modalities
Shoulder ROM & strength

PHASE III: Generally 5-6 months post-op

PHASE III GOALS: Pushups at own pace without pain
≥ 90% internal/external rotation strength return

PRECAUTIONS: ***NO** participation in contact/collision sports until 8 months post-op*
*OK to start supervised throwing program at 6 months if pain free with full ROM

REHABILITATION: Continue phase II exercises as needed
Progress to the following exercises and increase intensity gradually when patient is ready (i.e., no increase in shoulder pain or stiffness since the previous exercise session)
Note: all strengthening should be done, starting with low weights, high repetitions, and in a painless ROM

~weeks 17-20 Warm-up: 5-10 minutes on upper body cycle
General upper quarter stretching: 5-10 minutes (shoulder, thoracolumbar spine)
Progressive strengthening: ER/IR with shoulder in 30° elevation, FF/scaption to 60-90°, rows (first set: 15 reps, then 2 additional sets at the same weight to muscle failure)
Intermediate level neuromuscular/functional training exercises (see appendix)
Intermediate level shoulder stabilization exercises (see appendix)

~weeks 21-26 Progressive strengthening: ER/IR with shoulder in 45-90° elevation, FF/scaption to 90-120°, (first set: 10-15 reps, then 2 additional sets at the same weight to muscle failure)
May also begin general light intensity strengthening with shoulder in “safe” position (avoid heavy overhead lifting, avoid shoulders in the 90° elevation, 90° ER position)
Intermediate/advanced level neuromuscular/functional training exercises (see appendix)
Intermediate/advanced level shoulder stabilization exercises (see appendix)
Progressive sports training: Begin at 25-50% intensity, progress gradually (see appendix)

FOLLOW-UP: PT: Monthly; Ortho: ~6 months post-op;
Supervised rehabilitation: 1-2 x per week as needed

DOCUMENTATION: Pain level - medications and modalities
Shoulder ROM & strength
Biodex testing at 6 months post-op

MISCELLANEOUS: After 6 months post-op: Exercises in phase III are continued, gradually increasing intensity & duration as tolerated.
The recommendation is to wait until 8-10 months post-op to return to contact/collision sports. This time period may be adjusted slightly by the surgeon and therapist according to patient progress.

APPENDIX: GENERAL SHOULDER PROGRESSIONS

The following is a supplement to the rehabilitation guidelines on various types of shoulder exercises. The time frames listed are only for procedures specific to this protocol

In general, beginning level shoulder exercises are performed with light resistance in a ROM below 90° of shoulder elevation. Intermediate level exercises are done with moderate resistance in a ROM below 120°.

Advanced level exercises are done with moderate resistance in a full ROM, but avoiding the 90° abducted, 90° externally rotated position until ~5-6 months post-op. All training should be pain free.

Exercise Type	Beginning Level ~13-16 weeks post-op	Intermediate Level ~17-20 weeks post-op	Advanced Level 21-26 weeks post-op
Body Blade	Flexion/Extension IR/ER Superior/Inferior (arm at side)	FF range to 90° Scaption to 90° IR/ER through ROM Horiz adb/add at 90°	FF range to 150° Scaption to 150° IR/ER through ROM Diagonal motions
Ball toss	Chest pass – 2 handed IR toss – (arm at side)	Overhead toss – (2 handed) Behind back toss	Overhead diagonal toss – (2 handed) Regular throwing toss
Prone stabilization	Weight shifting in sitting, standing, prone on all fours	All fours stabilization on stable surface	All fours stabilization on foam or theraball
Supine stabilization	Supine Shoulder Stabilization @ 90°	Supine Shoulder Stabilization from 60-120°	Supine Shoulder Stabilization (Available ROM)
Cuff strengthening	ER/IR – (arm at side) FF/Scaption to 60-90° (Thumb up)	ER/IR - (30-45° shld scaption) FF/Scaption to 90-120° (Thumb up)	ER/IR- (45-90°shld scaption) – gradually moving into abd PNF patterns
Scapular strengthening	Ceiling “punches” Rows	“Pushouts” (in standing) Rows (inferior/superior)	Pushup plus
Pushups	none	Wall pushups – progressing to inclined pushups	Knee pushups – progressing to modified regular pushups
Misc activities	Basketball: dribbling, chest and bounce pass Golf: putting Volleyball: bumping Pool: jogging, treading Wall ball drawing	Basketball: shooting within the key only Golf: chipping, short irons Volleyball: setting Pool: No overhead strokes Tossing Frisbee Catching drills: below 90°	Basketball: noncontact drills only Golf: gradual return Vball: gradual return ~6 mo Pool: gradual return Forehand, backhand racquet sports (no overhead)