



ELBOW MEDIAL COLLATERAL LIGAMENT (MCL) RECONSTRUCTION POST-OPERATIVE GUIDELINES

BRACE INSTRUCTIONS

Week 1: Posterior splint and sling:

Week 2-3: Flexion 60°, Extension 30°:

Week 4: Flexion 90°, Extension 30°:

Week 5: Flexion 90°, Extension 15°:

Week 6: Brace D/C

Phase 1: Post-Operative Recovery (Weeks 1-4)

PRECAUTIONS

- Avoid pain provoking activities
- Avoid any painful exercises
- Monitor healing for signs and symptoms of infection

TREATMENT RECOMMENDATIONS

- Gripping and hand AROM
- Elbow active ROM (AROM) in brace (no further than brace allows)
- Wrist AROM: flexion/extension immediate post-op
- Scapular protraction/retraction, scapular isometrics

CRITERIA FOR ADVANCEMENT

- Reduced irritability
- 15°-90° elbow AROM

EMPHASIZE

- Reduction of tissue irritability
- Protection of graft site
- Prevention of muscle atrophy
- Full wrist/hand mobility



Phase 2: Intermediate (Weeks 5-6)

PRECAUTIONS

- Avoid valgus stress
- Avoid aggressive passive range of motion (PROM): do not force motion
- Avoid any painful exercises
- Avoid closed chain exercises

TREATMENT RECOMMENDATIONS

- Continue elbow AROM
- Begin pain-free isometrics o Bicep isometrics/tricep isometrics
 - Deltoid
 - Shoulder external rotation (ER)/internal rotation (IR) isometrics
- Wrist activation: minimize muscle atrophy
 - Flexion/extension
 - Pronation/supination
- AROM shoulder
 - Full can
 - Lateral raises
 - Elbow flexion/extension
- Manual scapula stabilization with proximal resistance
- Assess and treat graft site if needed (hamstring or palmaris)

CRITERIA FOR ADVANCEMENT

- Elbow ROM: 15°-115°
- Reduced tissue irritability

EMPHASIZE

- Elbow AROM 15°-115°
- Reduction of tissue irritability
- Maintenance of shoulder flexibility



Phase 3: Advanced (Weeks 7-11)

PRECAUTIONS

- Minimize valgus stress
- Avoid aggressive PROM by clinician
- Avoid painful exercise
- Avoid closed chain exercises until week 10

TREATMENT RECOMMENDATIONS

- Continue AROM of upper extremity
- Low intensity/long duration stretch for extension only if needed
- Isotonics for scapula, shoulder, elbow, forearm, wrist
- Begin shoulder ER/IR isotonics
- Upper extremity ergometry (if ROM allows)
- Neuromuscular drills
- Throwers Ten exercises
- Progress to Advanced Throwers Ten exercises
- Modalities as needed
- Begin closed chain exercises progression
- Serratus activation
 - Supine punch at 90 degrees and 110 degrees shoulder flexion
 - Dynamic hugs
 - Wall slides

CRITERIA FOR ADVANCEMENT

- Full shoulder and elbow ROM
- Pain-free at rest and during exercise
- All upper extremity MMT 5/5

EMPHASIZE

- Restoration of full AROM/PROM
- Upper extremity MMT 5/5
- Upper extremity endurance



Phase 4: Plyometric Progression (Weeks 12-15)

PRECAUTIONS

- Pain-free plyometrics

TREATMENT RECOMMENDATIONS

- Continue to advance and progress all Thrower's Ten exercises
- Plyometric progression (over 4-week period)
 - Double hand chest pass (week 12)
 - Double hand overhead soccer pass (week 12)
 - Double hand chops (week 13)
 - Single hand IR at 0° abduction (week 13)
 - Eccentric catch (week 14)
 - Single hand 90/90 IR (week 14)
- Endurance progression
 - Double hand overhead wall taps
 - Single arm 90/90 wall taps
 - Single arm 12 o'clock to 3 o'clock wall taps
 - Exercise blade in multiple positions

CRITERIA FOR ADVANCEMENT

- Complete all plyometrics without symptoms

EMPHASIZE

- Restoration of full strength and flexibility
- Restoration of normal neuromuscular function
- Preparation for return to sport specific activity



Phase 5: Advanced (Weeks 16+)

PRECAUTIONS

- All progressions should be pain-free
- Monitor for loss of strength and flexibility

TREATMENT RECOMMENDATIONS

- Initiate interval sports program
- Begin interval throwing at 4 months per surgeon clearance
- Begin hitting program at 5 months
- Continue with all upper and lower extremity mobility/flexibility exercises
- Continue with advanced shoulder and scapular strengthening exercises
- Monitor workload

CRITERIA FOR RETURN TO PARTICIPATION

- Pain-free progression through interval sports program
- Independent with all arm care exercises

EMPHASIZE

- Initiation of interval sports programs
- Return to sport participation