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Rehabilitation Protocol for Ulnar Collateral Ligament of the Elbow

Reconstruction with Palmaris Longus Graft

DISCLAIMER: The following Physical Therapy protocol is intended to be utilized by the clinician as a guideline in the treatment of this disorder. It is based on current research and has been formulated as a collaborative effort between Physicians and Physical Therapists. It is not intended to serve as a substitute for sound clinical decision making. Every patient is a unique case, and it should be anticipated that not all patients will fit into the timelines set forth in this protocol. If the Physical Therapist has any questions regarding the course of treatment, the referring physician should be contacted for further guidance.

IMMEDIATE POST OPERATIVE PHASE 1: (0-3 Weeks)

- **GOALS:**
 - Protect healing tissue
 - Decrease pain/inflammation
 - Retard muscular atrophy
 - Protect graft site- allow healing

- **Week 1:**
 - Brace: Posterior splint at 90 degrees elbow flexion, forearm neutral.

 - Interventions:
 - Address edema as needed, with compression wrap
 - Hand to above elbow or with tubigrip stockinette.
 - Cold pack use to elbow and graft site as needed.
 - Address wound with wound cleaning and dressing, as needed.

 - Exercises:
 - Wrist extension/flexion immediately post-op.
 - Finger ROM/tendon glides.
 - Shoulder rolls.

- **Week 2:**

- Brace: 30-100 degrees
- Interventions:
 - Soft tissue mobilization (focus to relaxing biceps if tight)
 - Manual edema mobilization massage as needed.
 - Scar modulation with massage and kinesiotape if incision healed.
 - Ice and compression
- Exercises:
 - gentle pain free elbow AAROM/AROM 25-100 degrees
 - Wrist ROM flexion/extension
 - Pain free AAROM pronation /supination
 - Shoulder pendulums with brace on, shoulder circles with palm facing down (NO ER/valgus stress)
 - Shoulder rolls
 - Gripping, pinching, twirling ex with light sponge
- **Week 3:**
 - Brace: 15-110 degrees
 - Interventions:
 - Soft tissue mobilization (focus to relaxing biceps if tight)
 - Manual edema mobilization massage as needed.
 - Scar modulation with massage and kinesiotape if incision healed.
 - Ice and compression
 - Moist heat as needed to relax tight musculature.
 - Exercises:
 - Continue ex as above.
 - Elbow ROM in brace-May progress to 0 deg. if pain free, but avoid progressing too quickly to avoid stress to ligament.
 - Wrist ROM ex with weight well –NO weight
 - Supine shoulder flexion, protraction and small shoulder circles at 90 with palm neutral or pronated
 - Avoid Horizontal abduction in supine

INTERMEDIATE PHASE 2: (Weeks 4-8)

- **GOALS:**
 - Gradually increase to full ROM by weeks 4-6.
 - Promote healing of repaired tissue.
 - Regain and improve muscular strength – *Slow integration* of exercises
- **Week 4:**
 - Brace: 0-125 degrees.

- Interventions:
 - Moist heat for warm up as needed.
 - Soft tissue / scar mobilization
 - Continue ice and compression as needed.
 - Kinesiotape for support to medial elbow and/or for scar as needed.

- Exercises:
 - Begin light resistance exercises for arm (1lb)
 - wrist flexion/ extension, pronation/ supination.
 - Elbow ext/flexion -Biceps curl (eccentric emphasis)
 - Initiate shoulder abduction / flexion without dumbbells. No ER/IR at shoulder level.
 - Allow NuStep/UE for gentle AAROM short arc.

- **Week 5:**
 - Brace: 0-135 degrees.

 - Interventions:
 - Moist heat for warm up as needed.
 - Soft tissue / scar mobilization
 - elbow PROM
 - Continue ice and compression as needed
 - Kinesiotape for support to medial elbow and/or for scar as needed.

 - Exercises:
 - Elbow ROM 0-135
 - Continue all above

- **Week 6-8:**
 - Brace: DC brace between 6-8 weeks except for unsafe environments.
 - AROM 0-145 without brace.

 - Interventions:
 - Moist heat for warm up as needed.
 - Soft tissue / scar mobilization
 - elbow PROM
 - Continue ice and compression as needed
 - Kinesiotape for support to medial elbow and/or for scar as needed.

 - Exercise:
 - Continue NuStep/UBE for AROM, warm up and progressing to light resistance as patient reports no increased pain.
 - Initiate hand grippers for home.
 - Continue other exercises as above.

STRENGTHENING PHASE 3: (Weeks 9-15)

- **GOALS: 9-15 weeks**
 - Increase strength, power, endurance
 - maintain full elbow ROM
 - gradually initiate sporting activities

- **Week 9:**
 - Exercises:
 - Begin light pulleys with diagonals.
 - Theraband ex for home program –start yellow or red. –Caution during ER activities.
 - Continue eccentric elbow flexion/extension
 - Continue forearm & wrist weight program
 - Initiate shoulder program- Thrower’s Ten Program – No push-ups or press-ups

- **Week 12-15**
 - Initiate Advanced Thrower’s Ten Program at week 12.
 - Continue all above.
 - Initiate isotonic machine strengthening ex (if desired)
 - Bench press Seated
 - Lat pull down, midrows, lower trap pull,

ADVANCED STRENGTHENING AND RETURN TO ACTIVITY PHASE 4: Week 15 +

- **GOALS:**
 - Continue to increase flexibility, endurance and strengthening of upper extremity.
 - Gradual return to sport activities.

- **Week 16-20:**
 - Exercises:
 - Initiate interval hitting program.
 - Initiate Advanced thrower’s Ten Program
 - Continue to stretch before and after throwing.
 - Plyometrics – One hand plyometric throwing (stationary throws)
 - Initiate one hand wall dribble.
 - Initiate one hand baseball throws into wall.
 - Progress to Interval throwing program- Phase 1 long toss program.

- **Week 22-24:**
 - Exercises: Progress to Phase 2 throwing (once successfully completed Phase 1)

- **Week 30-32:**
 - Exercises:

- Once return to sports utilize Thrower's Ten, and continue ROM & stretching program
- Gradually Progress to competitive throwing /sports as surgeon allows
 - Most pitchers return to competitive game pitching 8-9+ months.