

POST-OPERATIVE REHABILITATION FOLLOWING ULNAR COLLATERAL LIGAMENT RECONSTRUCTION USING AUTOGENOUS PALMARIS LONGUS GRAFT (ACCELERATED ROM)

I. IMMEDIATE POST-OPERATIVE PHASE (0-3 weeks)

Goals: Protect healing tissue
Decrease pain/inflammation
Retard muscular atrophy
Protect graft site – allow healing

A. Post-Operative Week 1

Brace: Posterior splint at 90 degrees elbow flexion

Range of Motion: Wrist AROM ext/flexion immediately postoperative

Elbow postoperative compression dressing (5-7 days)

Wrist (graft site) compression dressing 7-10 days as needed

Exercises:

- Gripping exercises
- Wrist ROM
- Shoulder isometrics (No Shoulder ER)
- Biceps isometrics

Cryotherapy: To elbow joint and to graft site at wrist

B. Post-Operative Week 2

Brace: Elbow ROM 25-100 degrees

(Gradually increase ROM – 5 degrees Ext/10 degrees of Flex per week)

Exercises:

- Continue all exercises listed above
- Elbow Range of Motion in brace (30-105 degrees)
- Initiate elbow extension isometrics
- Continue wrist ROM exercises
- Initiate light scar mobilization over distal incision (graft)

Cryotherapy: Continue ice to elbow and graft site

C. Post-Operative Week 3

Brace: Elbow ROM 10-120 degrees

Exercises:

- Continue all exercises listed above
- Elbow ROM in brace
- Initiate active ROM Wrist and Elbow (No resistance)
- Initiate light wrist flexion stretching

- Initiate active ROM shoulder;
 - -Full can
 - -Lateral raises
 - -ER/IR tubing
 - -Elbow flex/extension

- Initiate light scapular strengthening exercises
- May incorporate bicycle for lower extremity strength & endurance

II. INTERMEDIATE PHASE (Week 4-7)

Goals: Gradual increase to full ROM
 Promote healing of repaired tissue
 Regain and improve muscular strength
 Restore full function of graft site

A. Week 4

Brace: Elbow ROM 0-125 degrees

Exercises:

- Begin light resistance exercises for arm (1 lb)
 - Wrist curls, extensions, pronation, supination
- Elbow extension/flexion
- Progress shoulder program emphasize rotator cuff and scapular strengthening
- Initiate shoulder strengthening with light dumbbells

B. Week 5

ROM: Elbow ROM 0-135 degrees

Discontinue brace
Maintain full ROM

Continue all Exercises: Progress all shoulder and UE exercises (progress weight 1 lb.)

Week 6

AROM: 0-145 degrees without brace or full ROM

Exercises:

- Initiate Thrower's Ten Program
- Progress elbow strengthening exercises
- Initiate shoulder external rotation strengthening
- Progress shoulder program

Week 7

Progress Thrower's Ten Program (progress weights)
 Initiate PNF diagonal patterns (light)

III. ADVANCED STRENGTHENING PHASE (Week 8-14)

Goals: Increase strength, power, endurance
 Maintain full elbow ROM
 Gradually initiate sporting activities

A. Week 8

Exercises:

- Initiate eccentric elbow flexion/extension
- Continue isotonic program: forearm & wrist
- Continue shoulder program – Thrower's Ten Program
- Manual resistance diagonal patterns
- Initiate plyometric exercise program
 - (2 hand plyos close to body only)
 - -Chest pass
 - -Side throw close to body
- Continue stretching calf and hamstrings

B. Week 10

Exercises:

- Continue all exercises listed above
- Program plyometrics to 2 hand drills away from body
 - -Side to side throws
 - -Soccer throws
 - -Side throws

C. Week 12-14

Continue all exercises

Initiate isotonic machines strengthening exercises (if desired)

- Bench press (seated)
- Lat pull down

Initiate golf, swimming

Initiate interval hitting program

IV. RETURN TO ACTIVITY PHASE (Week 14-32)

Goals: Continue to increase strength, power, and endurance of upper extremity musculature
 Gradual return to sport activities

A. Week 14

Exercises:

- Continue strengthening program
- Emphasis on elbow and wrist strengthening and flexibility exercises
- Maintain full elbow ROM
- Initiate one hand plyometric throwing (stationary throws)
- Initiate one hand wall dribble
- Initiate one hand baseball throws into wall

B. **Week 16**

Exercises:

- Initiate interval throwing program (Phase I) [long toss program]
- Continue Thrower's Ten Program and plyos
- Continue to stretch before and after throwing

C. **Week 22-24**

Exercises: Progress to Phase II throwing (once successfully completed Phase I)

D. **Week 30-32**

Exercises: Gradually progress to competitive throwing/sports