

Therapist _____

POST-OPERATIVE REHABILITATION PROTOCOL FOLLOWING ULNAR COLLATERAL LIGAMENT RECONSTRUCTION USING AUTOGENOUS GRACILIS GRAFT

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
Knee ROM day 1

Elbow compression dressing (2-3 days)

Calf (graft site) compression dressing 7-10 days

Exercises:

- Gripping exercises
- Wrist ROM
- Shoulder isometrics (No Shoulder ER)
- Biceps isometrics
- No involved leg exercises first week

Cryotherapy: To elbow joint and to graft site below knee

Crutch: Use one crutch as needed for 3-5 days

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 knee 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 15-115 degrees

Exercises:

- Continue all exercises listed above
- Elbow ROM in brace
- Initiate active ROM Wrist and Elbow (No resistance)
- Initiate light hamstring stretching
- Initiate active ROM shoulder;
 - Full can
 - Lateral raises
 - ER/IR tubing
 - Elbow flex/extension
- Initiate light scapular strengthening exercises
- Initiate bicycle for lower extremity ROM and strength
- May initiate light hamstring isometrics

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
- Isometrics for hamstrings and calf muscles

B. Week 5

ROM: Elbow ROM 0-135 degrees
Discontinue brace

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

C. 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
- Initiate isotonic strengthening for graft site hamstrings/calf

D. 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, and 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

Exercises:

- 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