



### ANDREW'S PROTOCOL

## POST-OPERATIVE REHABILITATION PROTOCOL FOLLOWING ULNAR COLLATERAL LIGAMENT RECONSTRUCTION USING AUTOGENOUS **PALMARIS LONGUS** GRAFT

### I. IMMEDIATE POST-OPERATIVE PHASE (0-3 WEEKS)

#### A. GOALS:

- i. Protect healing tissue
- ii. Decrease pain/inflammation
- iii. Retard muscular atrophy
- iv. Protect graft site – allow healing

#### B. WEEK 1

- i. **Brace:** Posterior splint with elbow at 90° flexion
- ii. **Compression:** Elbow Compression dressing (first 2-3 days) Wrist (graft site) compression dressing 7-10 days as needed
- iii. **Cryotherapy:** To elbow joint and graft site at the wrist
- iv. **Range of Motion:** Wrist AROM (flexion & extension) immediately postoperatively
- v. **Exercises:**
  1. Gripping exercises
  2. Wrist ROM
  3. Supination/Pronation
  4. Shoulder isometrics (no shoulder internal rotation)
  5. Biceps isometrics

#### C. POST-OPERATIVE WEEK 2

- i. **Brace:** Elbow ROM 30°-100°
- ii. **Cryotherapy:** Continue ice to elbow joint and graft site
- iii. **Exercises:**
  1. Continue all exercises listed above
  2. Elbow ROM in brace (-30° to 100°)
  3. Initiate isometric elbow extension
  4. Initiate wrist isometrics
  5. Continue wrist ROM exercises
  6. Initiate light scar mobilization over the distal graft incision

#### D. POST-OPERATIVE WEEK 3

- i. **Brace:** Elbow ROM 15°-110° (Gradually increase ROM by 5° extension and 10° flexion per week after this point)

ii. **Exercises:**

1. Continue all exercises listed above
2. Elbow ROM in brace
3. Initiate light wrist flexion stretching
4. Initiate AROM shoulder
  - a. Full can
  - b. Lateral raises
  - c. ER/IR tubing
5. Continue wrist ROM exercises
6. Initiate light scar mobilization over the distal graft incision

II. **INTERMEDIATE PHASE (WEEKS 4–8)**

A. **GOALS:**

- i. Gradual increase in range of motion
- ii. Promote healing of repaired tissue
- iii. Regain and improve muscular strength

B. **POST-OPERATIVE WEEK 4**

- i. **Brace:** Elbow ROM 10°-120°
- ii. **Exercises:**
  1. Begin light resistance exercises for arm (1 lb):
    - a. Wrist curls and wrist extension
    - b. Pronation/supination
    - c. Elbow extension/flexion.
    - d. Progress shoulder program, emphasizing rotator cuff and scapular strengthening (avoid ER until week 6)
    - e. Initiate shoulder strengthening with light dumbbells

C. **POST-OPERATIVE WEEK 5**

- i. **Brace:** Elbow ROM 5°-130°
- ii. **Exercises:**
  1. Continue all exercises and progress all shoulder and UE exercises (progress 1# weight)

D. **POST-OPERATIVE WEEK 6**

- i. **Brace:** Elbow ROM 0°-145° (without brace, or full AROM)
- ii. **Exercises:**
  1. Initiate Thrower's Ten Program
  2. Progress elbow strengthening exercises
  3. Initiate shoulder external rotation strengthening
  4. Progress shoulder program

E. **POST-OPERATIVE WEEK 7**

- i. **Exercises:**
  1. Progress Thrower's Ten Program (progress weights)
  2. Initiate PNF diagonal patterns (light)

### III. **ADVANCED STRENGTHENING PHASE (8-14 WEEKS)**

#### A. **GOALS:**

- i. Increase strength, power, and endurance
- ii. Maintain full elbow ROM
- iii. Gradually initiate sporting activities

#### B. **POST-OPERATIVE WEEK 8**

##### i. **Exercises:**

1. Initiate eccentric elbow flexion/extension
2. Continue isotonic program; forearm and wrist
3. Continue shoulder program—thrower's ten program
4. Manual resistance, diagonal patterns
5. Initiate plyometric exercise program
  - a. 2 hand plyos close to body
  - b. Chest pass
  - c. Side throw close to body

#### C. **POST-OPERATIVE WEEK 10**

##### i. **Exercises:**

1. Continue all exercises listed above
2. Progress plyometrics to 2 hand drills away from the body
  - a. Side to side throws
  - b. Soccer throws

#### D. **POST-OPERATIVE WEEK 12-14**

##### i. **Exercises:**

1. Continue all exercises
2. Initiate isotonic machines strengthening exercises if desired
  - a. Bench press (seated)
  - b. Lat pull down
3. Initiate golf, swimming
4. **Initiate interval hitting program**

### IV. **RETURN TO ACTIVITY PHASE (14-32 WEEKS)**

#### A. **GOALS:**

- i. Continue to increase strength, power and endurance of upper extremity musculature
- ii. Gradual return to sports activities

#### B. **POST-OPERATIVE WEEK 14**

##### i. **Exercises:**

1. Continue strengthening program
2. Emphasis on elbow and wrist strength and flexibility exercises
3. Maintain full elbow ROM
4. Initiate one hand plyometric throwing (stationary throws)
5. Initiate one hand wall dribble
6. Initiate one hand baseball throws into wall

C. POST-OPERATIVE WEEK 16

i. **Exercises:**

1. Initiate Interval Throwing Program (Phase I) [long toss program]
2. Continue Thrower's Ten program and plyos
3. Continue to stretch before and after throwing

D. POST-OPERATIVE WEEKS 22-24

i. **Exercises:**

1. Progress to Phase II throwing (once successfully completed Phase I)

E. POST-OPERATIVE WEEK 30-32

i. **Exercises:**

1. Gradually progress to competitive throwing and sports