

**Post-operative Rehabilitative Protocol:
Chronic Ulnar Collateral Ligament Reconstruction
Autogenous Graft (Palmaris)**

Phase I: Immediate Post-Operative Phase (0-3 weeks)

Goals:

- (1) *Protect healing tissue*
- (2) *Decrease pain/inflammation*
- (3) *Retard muscular atrophy*

A. Post-Operative 3 - 5 days:

1. Posterior splint at 90 degrees elbow flexion
2. Wrist AROM ext/flexion
3. Elbow compression dressing (2-3 days)
4. Exercises: gripping exercises, wrist ROM/shoulder isometrics (except shoulder ER), biceps isometrics
5. Cryotherapy

B. Post-Operative Days 5 - 14:

1. Application of functional brace set at 30-100 degrees
2. Initiate wrist isometrics
3. Initiate elbow flex/ext isometrics
4. Continue all exercises listed above
5. Gentle Concentrics at 30 -100,
6. Don't aggravate the ulnar nerve (5th digit numbness)
7. Wean from sling
8. Continuous use of brace outside of rehab.
9. Scar mobilization with care to anterior medial wound (Ulnar nerve)

C. Post-Operative Week 3:

1. Advance brace 15-110 degrees (gradually increase ROM/5 degrees extension/10 degrees flexion per week)

Phase II Intermediate Phase (Week 4-7)

Goals:

- (1) *Gradual increase in range of motion*
- (2) *Promote healing of repaired tissue*
- (3) *Regain and improve muscular strength*

A. Weeks 4 - 5:

1. Functional brace set 10-120 degrees
2. Begin light resistance exercises for arm (1 - 2 lb)
wrist curls, extensions; pronation/supination;
elbow ext/flexion
3. Progress shoulder program emphasize rotator cuff
strengthening (avoid ER until 6th week) Valgus extension position.

B. Weeks 6 - 7:

1. Functional brace set (0-130 degrees);
AROM (0-145 degrees) (without brace)
2. Progress elbow strengthening exercises (don't irritate nerve)
3. Initiate shoulder external rotation strengthening
4. Progress shoulder program
5. Manual resistance at wrist (variable positions of elbow flexion)

Phase III Advanced Strengthening Phase (week 8-12)

Goals:

- (1) *Increase strength, power, endurance*
- (2) *Maintain full elbow ROM-*
- (3) *Gradually initiate sporting activities*

A. Weeks 8 - 9:

1. Initiate eccentric elbow flexion/extension
2. Continue isotonic program; forearm & wrist
3. Continue shoulder program-Throwers Ten Program
4. Manual resistance diagonal patterns
5. Initiate plyometric exercise program (plyoballs etc.)
6. Discontinue use of Brace

B. Weeks 10 -12:

1. Continue all exercises listed above
2. May begin light sport activities
(i.e., golf, swimming)

Phase IV Return to Activity Phase (Week 13-26)

Goals:

- (1) *Continue to increase strength, power, & endurance of upper extremity musculature*
- (2) *Gradual return to sport activities*

A. Months 3 - 4:

1. Initiate interval throwing program (phase I) Andrews baseball book
2. Continue strengthening program
3. Emphasis on elbow & wrist strengthening and flexibility exercises
4. OK to return to batting and fielding work if no ulnar nerve symptoms and full ROM.

B. Months 5 - 6:

1. Return to competitive throwing
2. Interval throwing - Phase II (pitchers)