

Elbow Ulnar Collateral Ligament Repair/Reconstruction

Dr. Bear

Surgical Description:

- Surgical reconstruction or repair of the UCL attempts to restore stability of the elbow. Incision is on the medial aspect of the elbow. Reconstruction is typically completed with autograft tendon.

Phase I (0 – 4 weeks post-op)

- Goals:
 - Protect the UCL and healing tissue
 - Restore motion
 - Manage pain and inflammation
 - Prevent muscular atrophy; scapular/GH/leg/core programs
- Precautions:
 - No flexion PROM
 - Avoid valgus stress
- Orthosis at week 2
 - Elbow static orthoplast: 60 degrees flexion, neutral forearm rotation
 - Remove for hygiene and therapy exercises
- ROM:
 - NO PROM
 - Begin AROM:
 - Wrist flexion/extension, gripping
 - Elbow flexion/extension AROM 30-60 degrees in forearm supination and forearm neutral positions
 - Forearm supination/pronation in 45-60 degrees of elbow flexion
- 2 weeks:
 - Submaximal isometrics
 - Shoulder (avoid ER and abduction)
 - Elbow flexion/extension
 - Wrist flexion/extension
 - Manual scapular stabilization with proximal resistance
- 4 weeks:
 - Continue elbow AROM increasing by 5 degrees extension and 10 degrees flexion per week, up to 15-115 degrees
 - Elbow extension PROM if needed, within weekly restrictions

Phase II (5-8 weeks post-op)

- Goals:
 - Protect repair
 - Progress ROM
- 5 weeks:

- Begin light resistance (1 lb)
- Wrist flexion/extension
- Forearm pronation/supination
- Elbow flexion/extension within weekly restrictions
- 8 weeks:
 - Discontinue elbow orthosis
 - Progress to unrestricted AROM

Phase III (9-12 weeks post-op)

- 9 weeks:
 - Initiate Thrower's Ten Isotonics program (see handout)
 - UBE (no resistance)
- 10 weeks:
 - Progress shoulder strengthening
 - Begin ER/IR strengthening at 0 degrees shoulder abduction
 - Advance strengthening
 - Supination/pronation
 - PNF diagonals
 - Eccentric strengthening in elbow flexion/extension
 - Core strengthening
- 12 weeks:
 - Initiate Advanced Thrower's Ten Program (see handout)
 - Begin pain-free plyometrics

7 months: MD follow-up with referral back to therapy for functional testing and screening for athletes to return to sport

Considerations:

- UCL stabilizes the elbow joint from valgus stress. Avoid valgus stress in early phases
- Elbow flexion beyond 50 degrees increases stress on the reconstructed UCL, but full extension and isometric exercises are safe to perform
- If flexion ROM is not progressing as expected through AROM, therapist should consult surgeon before introducing PROM
- Consult Dr. Bear before beginning interval throwing program (this is anticipated to start between 6 and 6 months post-op, but is unique to each patient)

Adapted From:

1) Indiana Hand Protocol

2) Consultation with Dr. Brian Bear, MD at OrthoIllinois

3) Ellenbecker TS, Wilk KE, Altchell DW, Andrews JR. Current concepts in rehabilitation following ulnar collateral ligament reconstruction. Sports Health. 2009; 1(4): 301-313.

4) Wilk KE, Macrina LC, Cain EL, Dugas JR, Andrews JR. Rehabilitation of the overhead athlete's elbow. Sports Health. 2012; 4(5) 404-414.