

Dr. Bear's Elbow Ulnar Collateral Ligament Repair/Reconstruction

Procedure:

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 (1-4 weeks post op):

- Precautions:
 - No flexion PROM
 - Avoid valgus stress
- Orthosis:
 - 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 supinated and forearm neutral positions
 - Forearm supination/pronation in 45-60 degrees of elbow flexion
- At 2 weeks:
 - Submaximal isometrics
 - Shoulder (avoid ER and abduction)
 - Elbow flexion/extension
 - Wrist flexion/extension
 - Manual scapular stabilization with proximal resistance

Phase II (4 weeks post op):

- Precautions:
 - No flexion PROM
 - Avoid valgus stress
- Orthosis:
 - Continue full time orthosis wear at 60 degrees flexion
- ROM:
 - 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
- Week 5:
 - Begin light resistance exercises (1lb)
 - Wrist flexion/extension
 - Forearm pronation/supination

- Elbow flexion/extension within weekly restrictions

Phase III (8 weeks post op):

- Orthosis:
 - Discontinue elbow orthosis
- ROM:
 - Progress to unrestricted AROM
 - Full ROM expected by 9-10 weeks post-op

Phase IV (10 weeks post op):

- Strengthening:
 - Progress shoulder strengthening
 - Begin ER/IR strengthening at 0 degrees shoulder abduction
 - Advance to strengthening
 - Supination/pronation strengthening
 - UBE
 - PNF diagonals
 - Eccentric strengthening in elbow flexion/extension
 - Core strengthening

Phase V (12-16 weeks post op):

- Advance to Thrower's Ten Program for shoulder strengthening
 - ER/IR strengthening to 90 degrees shoulder abduction
- Begin pain-free plyometrics

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 flexion PROM
- Consult Dr. Bear before initiating interval throwing program. This is anticipated in months 8-12 post-op, but is specific to each patient

Adapted from:

1. Indiana Hand Protocol
2. Consultation with Dr. Brian Bear, MD at OrthoIllinois
3. Ellenbecker TS, Wilk KE, Altchek 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