

Rehabilitation Guidelines for UCL Repair with Internal Brace.

(Adapted from Wilk et al, JOPST, 2019)

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- General Information
 - Total Recovery time is between 4-6 months depending on factors such as injury severity, patient sport/activity/age and type of repair.
 - Adherence to rehab protocol guidelines and restrictions is critical in avoiding re-injury or failures.
- Immobilization
 - Initial post-op splint is worn continuously
 - Elbow range of motion brace is worn continuously for 6 weeks after first post-op visit.
- Personal Hygiene / Showering
 - Avoid getting incision/portal sites wet for 48 hours.
 - Ok to begin showering 48 hours after surgery (if no wound related issues).
 - Avoid baths, saunas, pools, lakes, etc. for two weeks.
 - DO NOT remove steristrips, allow them to fall off on their own.
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The rehabilitation protocol after a Ulnar Collateral Ligament Repair with Internal Brace surgery typically involves several phases. The length of each phase varies depending on each patient and depends on tissue healing and progression.

- Right after the surgery, the elbow is secured in a brace at a 60- to 90-degree angle. The goal is to protect the healing tissue and reduce inflammation. You can start physical therapy right away, focusing on your wrist, fingers, shoulder and biceps to help avoid muscle atrophy.
- One or two weeks after the surgery, you can start moving your elbow joint. You will be placed in a hinged brace that can be locked at a certain angle when you are not exercising but typically is unlocked to allow for full range of motion. You can also wear an arm sling for comfort. Physical therapy at this stage focuses on gradually increasing your range of motion in the elbow.
- By the end of the first month, you may be able to fully extend your elbow and eventually stop wearing the brace.

POSTOPERATIVE REHABILITATION FOR ULNAR COLLATERAL LIGAMENT REPAIR WITH INTERNAL BRACE

Phase 1: Immediate Postop (Week 1)

Goals: protect healing tissue, reduce pain and inflammation, retard muscle atrophy, achieve full wrist ROM Day 7-10. In posterior slab splint. Splint remains in place, do not remove until follow-up appt. Keep clean and dry. Apply ice for 60-90 minutes 1-3 times per day.

Phase 2: Controlled Mobility Phase (Weeks 2-5) Goals: gradually restore elbow ROM, improve muscular strength and endurance, normalize joint arthrokinematics Beginning Week 2 (Day 10)

1. Elbow ROM brace unlocked.
2. Begin elbow PROM and active-assisted ROM
3. Initiate shoulder AROM in elbow brace. Progress scapular-strengthening exercises, seated manual resistance: protraction/retraction, elevation/depression, diagonal patterns
4. Progress to light isotonic strengthening exercises for wrist, elbow, and shoulder at Week 3.

5. Initiate Throwers Ten exercise program beginning Week 4 and progress elbow- and wrist-strengthening exercises
6. Initiate wrist flexion and elbow flexion movements against manual resistance.

Criteria for progression to next phase: elbow AROM of 0° to 125°, minimal pain and tenderness, good manual muscle testing of key muscles/movements (elbow flexion/extension; wrist flexion; shoulder IR, ER, and scapular abduction)

Phase 3: Intermediate Phase (Weeks 6-8) Goals: progress upper extremity strength, continue with functional progression beginning week 6.

1. Discontinue elbow brace at week 6
2. Initiate 2-hand plyometrics: chest pass, side-to-side throw, and overhead pass
3. Initiate prone plank exercise beginning Week 8
4. Progress to 1-hand plyometrics: 90°/90° ball throw, 0° ball throw
5. Initiate side plank with shoulder ER strengthening exercise

Criteria for progression to next phase: full, nonpainful elbow AROM and PROM; no pain or tenderness; appropriate strength of shoulder and elbow (minimum of 70% compared to opposite side); satisfactory clinical examination; completion of current rehabilitation phase without difficulty

Phase 4: Advanced Phase (Weeks 9-14) Goals: advanced strengthening exercises, initiate ITP, gradual return to throwing Beginning Week 9

1. Continue all strengthening exercises and 1- and 2-hand plyometrics program
2. Beginning Week 10: Initiate 1. Seated chest-press machine 2. Seated row machine 3. Biceps/triceps machine or cable strengthening 4. Interval hitting program
3. Week 12: 1. Long toss
Criteria to enter next phase: full elbow, wrist, and shoulder ROM; no pain or tenderness; functional or isokinetic test that fulfills criteria for desired activity; satisfactory clinical examination

Phase 5: Return-to-Activity/Play Phase (Weeks 14+) Goals: gradual return to competitive throwing, continue all exercises and stretches Weeks 14 to 16

1. Continue all exercises as in weeks 9 to 14 2. Continue/progress (long toss) a. Each athlete may progress through ITP at different rates/paces b. Expected to complete throws of 0 to 27 m (0-90 ft) within 3 weeks of starting ITP and throws of 0 to 37 m (120 ft) within 8 weeks Weeks 16 to 20
2. Continue ROM and stretching programs 2. Continue Advanced Throwers Ten program
3. Continue plyometrics

Phase 6: Initiate throwing (off the mound) when phase 5 is complete and athlete is ready Weeks 20+

1. Initiate gradual return to competitive throwing
 2. Perform dynamic warm-ups and stretches
 3. Continue Advanced Throwers Ten program
 4. Return to competition when athlete is ready (physician decision and rehabilitation team)
- Abbreviations: AROM, active range of motion; ER, external rotation; IR, internal rotation; ITP, interval throwing program; PROM, passive range of motion; ROM, range of motion.