



Ulnar Collateral Ligament Reconstruction

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Reconstruction of the **ulnar collateral ligament** of the elbow is performed for overhead and throwing athletes who suffer disabling pain and weakness after tearing that ligament. The surgery is commonly referred to as “Tommy John Surgery” after the professional baseball player who first underwent the procedure in 1979. The surgery is generally performed only in the dominant arm of high performance athletes. A tendon from the forearm or the knee is used to replace the torn ligament. The majority of recreational athletes can function well without the ligament. Although improved surgical and rehabilitation techniques have made the procedure more predictable, time remains a critical element of recovery.

The recovery after surgery is divided into three phases:

1. Period of protection
2. Period of rehabilitation
3. Period of functional exercise

Period of Protection: Allowing surgical wounds to heal and graft incorporation to occur. This generally requires 6-8 weeks. The goals in this period are to allow wound healing yet maintain range of motion without stressing the graft.

Period of Rehabilitation: This phase allows for strength recovery and removing any terminal motion deficits. This period covers post-operative weeks 6-24 with continual introduction of higher levels of resistance exercise.

Period of Functional Exercise: This phase begins after the patient has recovered all of their motion and the majority of their strength. Beginning approximately 20-24 weeks after surgery, the patient begins a graduated throwing program with increasing intensity.

and duration. Completion of this phase leads to a return to sporting activity at a competitive level (typically 8-12 months post-operative). Although the vast majority of patients are competitive by 11-12 months, most athletes will show steady improvement for up to 15-24 months after surgery.

Post-operative Protocol (PO)

0-14 days

Goals: Wound healing, pain control, minimize atrophy

1. Posterior mold splint, arm sling
2. Cryotherapy
3. Hand and wrist ROM, gripping exercises, shoulder/biceps isometrics

Week 2-6

Goals: Increase ROM, wound precautions, regains elbow flexion/extension strength

1. Regain range of motion (gradual stretch to 0-120 degrees by week 4, 0-140 degrees by week 6)
2. Begin isometric forearm exercises, grip strengthening, maintain shoulder ROM (internal/external stretching), elbow flexion/extension light strengthening
3. Wean out of brace if brace required

Week 6-20

Goals: Insure full range of motion; begin light resistance exercises for wrist flexion/extension and pronation/supination, increase shoulder/elbow endurance and power

1. Terminal stretching, soft tissue massage
2. Begin concentric exercises (week 6) and eccentric (week 10-12) elbow/shoulder exercises
3. Increase isotonic exercises
4. Begin plyometric exercise program
5. Insure core strengthening (chest wall/abdominal concentric/eccentric exercises)
6. Light recreational sports (week 12)

Week 20-52

Goals: Progress strength and endurance programs. Graduated return to sports specific (throwing) programs.

1. Continue strength and endurance programs
2. Initiate throwing program
3. Functional sports exercises

During the later phases of rehabilitation and after return to sport, flare ups of soreness are common but self limited. These occurrences are often cleared with short periods of rest before resumption of the rehab program.