

ULNAR COLLATERAL LIGAMENT RECONSTRUCTION

This rehabilitation protocol has been developed for the patient following an ulnar collateral ligament reconstruction surgical procedure. This procedure is normally performed on the overhead athlete or throwing athlete with severe instability or acute trauma to the UCL. The most frequently utilized tissue is a palmaris longus autograft tendon. The protocol is divided into phases. Each phase is adaptable based on the individual and special circumstances.

The overall goals of the surgical procedure and rehabilitation are to:

- Control pain and inflammation
- Regain normal upper extremity strength and endurance
- Regain normal elbow range of motion
- Achieve the level of function based on the orthopedic and patient goals

The physical therapy should be initiated 10 to 14 days post-op, to be decided by Dr. Stewart. The supervised rehabilitation is to be supplemented by a home fitness program where the patient performs the given exercises at home or at a gym facility.

Important post-operative signs to monitor include:

- Swelling of the elbow and surrounding soft tissue
- Abnormal pain, hypersensitive—an increase in night pain
- Severe range of motion limitations
- Weakness in the upper extremity musculature

Return to activity requires both time and clinical evaluation. To most safely and efficiently return to normal or high level functional activity, the patient requires adequate strength, flexibility, and endurance. Functional evaluation including strength and range of motion testing is one method of evaluating a patient's readiness to return to activity. Return to intense activities following an ulnar collateral ligament reconstruction requires both a strenuous strengthening and range of motion program along with a period of time to allow for tissue healing. Symptoms such as pain, swelling, or instability should be closely monitored by the patient.

PHASE ONE: Weeks 1-3

EXERCISE GOAL

RANGE OF MOTION:

0-90° Day 10

AROM - Wrist flexion/extension - Finger flexion/extension

Passive Range of Motion - Elbow flexion/extension - Week 2

NO FULL EXTENSION UNTIL WEEK 3 to 4

STRENGTH:

Grip strengthening with putty or ball

Initiate shoulder isometrics—NO ER

Initiate submaximal bicep isometrics - Week 1

Initiate submaximal wrist isometrics - Week 2

Initiate submaximal elbow flex/ext isometrics - Week 2

BRACE:

Elbow immobilizer with arm sling 0-90° Week 1

Functional Brace 30-100° Week 2 / 15-110° Week 3

ULNAR COLLATERAL LIGAMENT RECONSTRUCTION

PHASE ONE: Weeks 1-3 (cont'd)

EXERCISE GOAL

MODALITIES:

E-stim as needed

Ice 15-20 minutes

GOALS OF PHASE ONE:

- Promote healing of tissue
- Control pain and inflammation
- Initiate light muscle contraction

PHASE TWO: Weeks 4-8

EXERCISE GOAL

RANGE OF MOTION:

0-145° Week 6

Continue ROM activities from previous phase, initiate elbow AROM Week 6

STRENGTH:

Continue to progress strength from Phase 1

Initiate light resistance exercises

Initiate light wrist flexion and extension

Initiate forearm pronation and supination

Initiate light elbow extension and flexion

Progress shoulder strengthening program

Progress rotator cuff program, avoid ER until Week 6

BRACE:

Functional Brace 10-120° Week 4 / 0-130° Week 6

MODALITIES:

Ice 15-20 minutes

GOALS OF PHASE TWO:

- Gradual increase of ROM
- Control pain and inflammation
- Progressive strength and endurance training

PHASE THREE: Weeks 8-12

EXERCISE GOAL

RANGE OF MOTION:

Full ROM

Continue all ROM activities from previous phases

STRENGTH:

Initiate eccentric elbow flexion/extension

Progress elbow flexion/extension isotonic

Progress shoulder isotonic

Initiate manual resistance PNF patterns

Initiate light bilateral plyometric program

Initiate light sports specific training Week 1

BRACE:

Discontinue Week 6

Functional brace discharged week 6 or as noted by Dr. Stewart

ULNAR COLLATERAL LIGAMENT RECONSTRUCTION

PHASE THREE: Weeks 8-12 (cont'd)

EXERCISE GOAL

MODALITIES:

Ice 15-20 minutes

GOALS OF PHASE THREE:

- Full Elbow ROM
- Maximize strength and endurance
- Minimize pain and inflammation
- Initiate return to sports/functional training program
- Enhance proprioception and arthrokinematics

PHASE FOUR: Weeks 12-24

EXERCISE GOAL

RANGE OF MOTION:

Continue all stretching and ROM activities from previous phases

STRENGTH:

Continue with all strengthening activities increasing weight and repetitions

Initiate interval throwing program Week 20

Initiate single arm eccentric activities

Return to competitive throwing 7-9 months

MODALITIES:

Ice 15-20 minutes as needed

GOALS OF PHASE FOUR:

- Maximize power, strength, and endurance of upper extremity
- Return to sports specific activity/functional activity
- Maximize proprioception and arthrokinematics