# SHOULDER, KNEE & SPORTS MEDICINE

# Ulnar Collateral Ligament Reconstruction, Tunnelless (Tommy John Surgery)

#### **Indications for Surgery**

Ulnar collateral ligament sprains are tears of the ligament on the inner side of the elbow. The ulnar collateral ligament (UCL) is a structure that helps maintain the normal relationship of the humerus (upper arm bone) and the ulna (one of the forearm bones). This ligament can be injured in throwing activities or after elbow dislocations. It may occur as a sudden tear or gradually stretch out over time with repetitive stress. This ligament is rarely injured in daily activities. When torn, the UCL usually does not heal or may heal in a lengthened position (loose). Surgery is usually indicated for people who wish to return to throwing or who are having persistent pain and symptoms after a UCL tear.



Late cocking-early acceleration phase of throwing stresses the UCL

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X-ray of a left elbow UCL injury



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MRI image of right elbow UCL tear

### **Contraindications to Surgery**

- Infection
- No functional impairment, able to modify activities to avoid symptoms (changing sport or position)
- Inability or unwillingness to complete the post-operative program after surgery and/or to complete the necessary rehabilitation

### **Potential Surgical Risks and Complications**

- Infection
- Numbness and weakness from injury to nerves (rare)
- Irritation from suture (rare)
- Re-injury
- Elbow, wrist or forearm stiffness and loss of motion
- Abnormal bone formation in the soft-tissues surrounding the repair (heterotopic ossification)
- Inability to return to prior level of participation
- Persistent pain with throwing
- Ulnar nerve irritation



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### **Hospitalization and Anesthesia**

- Outpatient surgery (go home the same day)
- General anesthesia with local anesthetic (numbing medicine at the surgical site)

## **General Surgical Technique**

Dr. Chudik performs this surgery through one main limited incision on the inside of the elbow. Depending on the case, he may also inspect the elbow joint arthroscopically using a small camera. Typically, the original ligament is stretched out or is not repairable, so a tendon graft is needed to reconstruct the UCL. Usually a tendon from the forearm or the knee is taken through a small incision to create the new UCL. Most orthopedic surgeons then pass the new UCL (tendon graft) through tunnels that they drill in the ulna (forearm bone) and the humerus (upper arm bone) to place the UCL in the same position as the original. However, Dr. Chudik has developed his own technique that avoids drilling large holes/tunnels into the bone. He reattaches the UCL graft to the surface of the bone, restoring the correct anatomic position of the UCL and avoiding the risk of fracture to the bone because of bone tunnels. Some UCL's can be repaired.

### **Postoperative Course**

- A splint is applied from shoulder to hand for 2 weeks, followed by an elbow brace for an additional 4 weeks. Patients will also keep the elbow in a sling for this 6 week period.
- Keep the wound clean and dry for 10-14 days following open surgery. Showering lightly is allowed after 14 days (open surgery) but wounds cannot be submerged under water for 3 weeks.
- Avoid driving while elbow is in the sling.
- Return to school/sedentary work in less than 1 week while wearing the sling/splint and with no use of the surgical extremity.
- Physical therapy should begin 2-3 days after surgery and continue for 4-6 months, followed by an interval throwing program before returning to throwing activities.

### **Return to Activity**

- A return to activity timeframe depends on the type of sport and position.
- Return to heavy lifting requires a minimum of 4-6 months' recovery.
- Return to overhead throwing and hitting sports requires 9-12 months' recovery.

There is a common myth that throwers' elbows are stronger after having a UCL reconstruction than they were prior to injury. This is **not** true. Throwers can return to their sport, but may not always achieve the same velocity and force with throwing after surgery.



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#### Outcomes

UCL reconstructions successfully restore the structure and function of the original UCL. Surgery also reliably relieves pain caused by UCL deficiency/insufficiency and typically allows return to throwing activity.

### **Preoperative instructions**

- Discontinue birth control pills
- Stop blood thinners (Aspirin, Coumadin<sup>®</sup>, Lovenox<sup>®</sup>, Xarelto<sup>®</sup>) according to the prescribing doctor's directions
- Stop anti-inflammatory medicines (Ibuprofen-Advil<sup>®</sup>, Motrin, naproxyn-Aleve<sup>®</sup>, etc.)
- Stop nutritional supplements and drinks (vitamin C, ginseng, ginkgo biloba, etc.)
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper healing of tissues

### Do not eat or drink anything after midnight the evening before surgery

### **Scheduling Surgery**

Contact Dr Chudik's surgery scheduler at 630-324-0402 or contactus@chudikmd.com to:

- Schedule the date and location of surgery (the hospital will call the day before surgery with the time to arrive)
- Schedule a pre-operative appointment
- Schedule a post-operative appointment to remove sutures and review post-op instructions

### Notify My Office If Symptoms Worsen





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