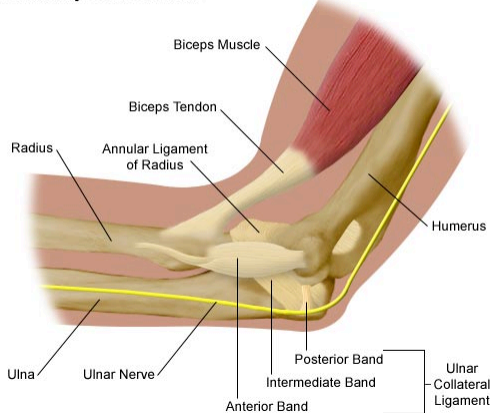


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*Ulnar Collateral Ligament  
Reconstruction*

Anatomy of the Elbow



Tommy John, a hall of fame baseball player, tore his UCL or ulnar collateral ligament, which until his time in 1974, represented a career-ending injury. John underwent a revolutionary surgical operation, Ulnar Collateral Ligament Reconstruction; widely known today as Tommy John surgery, which replaced the ligament in the elbow with a tendon from his right forearm.

Tommy John Surgery is a surgical procedure in which a ligament in the medial elbow is replaced with a tendon from other parts of the body, usually from the forearm, hamstring or foot.

The ulnar collateral ligament and the lateral collateral ligament are the two ligaments in the elbow that connect the humerus to the ulna bone and are the main source of stability for the elbow. The ulnar collateral ligament can be damaged by overuse and repetitive stress, such as the throwing motion and when there is an injury or dislocation of the elbow. If the ligament does not heal correctly the elbow can be too loose or unstable.

The first surgery was performed by doctor Frank Jobe on September 25, 1974 and in the early times of the surgeries doctors would detach the muscles inside of the elbow joint and forearm (flexor muscles) from the humerus and the ulnar nerve was re-routed from its normal position to see the joint and protect the nerve. Now as technology has improved and more knowledge is gained about the surgery doctors do not remove the flexor muscles, but split and

retract them to allow the surgeon to see the areas of the elbow joint.

There are two common techniques now for doctors to perform the operation, docking and figure of eight. The docking technique is; “The surgeon drills two holes in the ulna and three in the medial epicondyle. After the tendon from other part of the body is harvested, sutures are attached to both ends. The tendon is looped through the lower tunnel formed in the ulna, and stretched across the elbow joint. The two sutures attached to the ends of the graft are threaded into the larger bottom tunnel in the medial epicondyle and each is threaded out one of the upper, smaller holes. Using these two sutures, the surgeon pulls the end of the graft farther into the upper tunnel until the amount of tension is correct to hold the joint in position. The surgeon carefully puts the elbow through its full arc of motion and readjusts the tension on the sutures until he is satisfied that the proper ligamentous tension is restored. The two sutures are tied together to hold the tendon graft in that position.” The figure of eight technique is similar except that the tendon graft is threaded through two pairs of holes, two drilled in the medial epicondyle and two in the ulna, then the graft is looped through the holes in a figure of eight fashion.

After the surgery there is a strenuous 12 month rehabilitation program, especially for athletes. The program is split up into detailed agendas for every week starting with an immobile brace for the first week and then working up to different exercises. At around the tenth week of rehabilitation training starts to incorporate throwing motions and by the fourth month the athlete can be back on the field and throwing and starting to regain power and throwing speed with that arm.

There have been over 200 Ulnar Collateral Ligament Reconstruction surgeries performed to baseball players who have been able to return to play, even though some do not return to the same level as before the surgery.

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