Overuse injuries not resolved with Tommy John surgery

Before 1974, no one had ever heard of Tommy John surgery, the ulnar collateral ligament (UCL) reconstructive surgery named after the Los Angeles Dodgers' ace pitcher. Since then, though, the surgery has become a well known orthopaedic procedure and a potential career-saver for a limited number of individuals who may benefit from its ability to restore stability to the elbow. Even with more than three decades of surgery results, research reported to the American Orthopaedic Society for Sports Medicine found misperceptions remain that Tommy John surgery improves athletic performance.

"Even though the number of pitches thrown have long been recognized as contributors to overuse injuries, nearly one-third of those surveyed did not believe pitch counts are an injury risk," explained Steven Chudik, board certified orthopaedic surgeon, sports medicine physician with the Steven Chudik MD Shoulder and Knee Injury Clinic and founder of the Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation (OTRF). "Even more disturbing was the fact that one-quarter of the players and coaches surveyed thought a pitcher's performance could be enhanced with Tommy John surgery," Dr. Chudik added another misconception is that the elbow is stronger after UCL surgery. "The majority of orthopaedic ligament reconstructive surgeries can restore stability to an injured joint and allow return sport. However, the complex anatomy and function of the native ligament is likely never completely restored," he explained.

The UCL is the main ligament that attaches the ulna, (lower arm bone) to the humerus (upper arm bone) at the inside of the elbow and keeps these bones and the elbow joint properly aligned during activity. If this ligament is torn or damaged, the elbow joint can become unstable and painful during throwing. UCL injuries are most prevalent in baseball pitchers, but they also can occur in other athletes such as wrestlers and gymnasts. In pitchers, the UCL is usually partially torn and stretched out from the high forces exerted across the elbow during repetitive throwing. Poor throwing mechanics and muscle fatigue can increase those forces across the UCL of the elbow. The UCL also can be torn from a single event, such as a fall on an outstretched arm, or a single excessively hard and uncontrolled throw without warming up. The earliest sign of UCL injury is pain on the inside of the elbow during throwing which usually is associated with a decrease in pitching velocity and accuracy. If detected early, immediate cessation of throwing, followed by proper rehabilitation and the correction of throwing mechanics, may save the ligament and allow a gradual return.

Most athletes with UCL injuries, complete and partial, can return to sports and everyday activity without surgery. Typically, only high level throwers or other athletes that place tremendous forces on the elbow require surgery. The surgery is performed by harvesting either the palmaris tendon (extra tendon in the forearm) or the hamstring tendon (at the knee) and reconstructing the ligament on the inside of the elbow. This procedure is successful in returning the athlete to pitching in nine months to a year about 95 percent of the time if there are no other injuries in the elbow joint. Because of the long recovery time and complication risks, many non-professional athletes elect to switch positions or sports rather than undergo the surgery.

Play, participate at peak performance with sport-specific OTRF programs

Through the Orthopaedic Surgery & Sports Medicine Teaching & Research Foundation (OTRF), Dr. Steven Chudik and his health performance team provide reliable and proven training information to help athletes of all ages and abilities compete and perform at their best—no matter if it is a state athletic championship, or a weekly golf outing with friends. One of the most popular resources is OTRF's sports performance programs. Research-based, these programs incorporate appropriate exercises, weights and stretching into weekly training schedules to maintain strength and help minimize injuries.

The health performance programs are electronically distributed with the OTRF *Active Bones* e-newsletter. To automatically receive new programs, email OTRF and request to be added to the *Active Bones* mailing list. Sports performance programs previously developed by OTRF are available as PDF downloads on the OTRF website, ***otrfund.org.*** To download***,*** click on the sports performance tab. Or for a printed copy, you can email ***contactus@chudikmd.com***. Make sure to include your mailing address.


Baseball


Basketball


Football


Golf


Getting out the Cob Webs


Lacrosse


Soccer


Volleyball


ACL5


Youth Sports


Traveler's Workout