

TRIANGULAR FIBROCARILAGE COMPLEX (TFCC) INJURY

Patient Resource Courtesy of SportsMedToday.com.

Background

Triangular fibrocartilage complex injuries are the most common source of pinkie-side (ulnar) wrist pain. TFCC injuries can result from an acute fall onto an outstretched and turned out wrist or from a wrist being twisted while supporting weight. Another common way to injury your TFCC is to attempt to catch a falling object with an outstretched, extended and palms out (pronated) wrist. TFCC injuries can also be the result of overuse injuries, particularly in tennis players with western grips and heavy topspin forehands or serves, and in volleyball players.

Symptoms

- Pain at the end of the boney prominence (the ulna) on the back of the wrist
- Pain when lifting heavy objects
- Pain with bending wrist to pinkie side and turning the palm down

Sports Medicine Evaluation & Treatment

A practitioner will review the history and perform a physical exam, focusing on:

- Specific location of pain by applying firm pressure over the wrist bones
- Extend wrist, bend towards pinkie side and turn palm down
- Range of motion, strength and movement of bones against each other

Diagnostic imaging of the wrist is important to diagnose this condition

- X-rays can assess boney angles and alignment
- Magnetic resonance arthrography (MRA) is the most accurate for diagnosing TFCC tears.



Selective injections may be helpful to distinguish TFCC pain from tendon (extensor carpi ulnaris) pain. Treatment begins with conservative measures; rest, activity modification to avoid pain and short-term rest in a splint or cast may be helpful. TFCC tears may need to be evaluated by an orthopedic surgeon if they do not respond to these conservative treatments.

Injury Prevention

- Warm up with dynamic stretches, static stretching should be reserved for post-exercise
- Completion of a thorough rehabilitation program and resolution of pain with activity prior to return to play will reduce the likelihood of repeat and further injury.
- Modify technique to avoid excess loading of the ulnar-side of the wrist with activity
- Injury prevention for adults should be focused on reducing overuse injuries; teach proper technique, limit competitive play and reduce training volumes to <6hrs/wk.
- For youth; cross-training, not specializing in one sport and rest can be protective. Limiting hours of play and number of competitions a year may also reduce injury.

Return to Play

For wrist injuries related to tennis or volleyball, starting with “short-court” play from the service line, with or without a light ball, may assist in rehabilitation.

Initially, may require brace or taping to protect and support. Eventually, strengthening will take the place of the brace.

AMSSM Member Authors: Cassidy M. Foley D.O.

References

- Jayanthi N, Esser S. Racket sports. *Curr Sports Med Rep*. 2013;12(5):1-8.
- Sachar K. Ulnar-sided wrist pain: evaluation and treatment of triangular fibrocartilage complex tears, ulnocarpal impaction syndrome, and lunotriquetral ligament tears. *J Hand Surg*. 2012;37A:1489-1500.

AMSSM is a multi-disciplinary organization of sports medicine physicians dedicated to education, research, advocacy and the care of athletes of all ages. The majority of AMSSM members are primary care physicians with fellowship training and added qualification in sports medicine who then combine their practice of sports medicine with their primary specialty. AMSSM includes members who specialize solely in non-surgical sports medicine and serve as team physicians at the youth level, NCAA, NFL, MLB, NBA, WNBA, MLS and NHL, as well as with Olympic teams. By nature of their training and experience, sports medicine physicians are ideally suited to provide comprehensive medical care for athletes, sports teams or active individuals who are simply looking to maintain a healthy lifestyle. Find a sports medicine physician in your area at www.amssm.org.