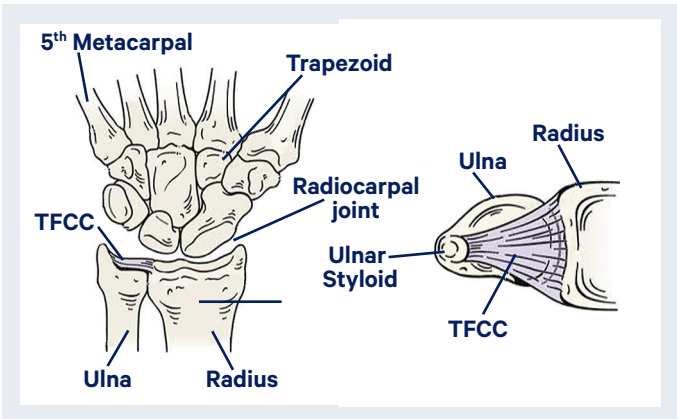


Triangular Fibrocartilage Complex (TFCC) Injury of the Wrist

WHAT IS A TFCC INJURY AND HOW DOES IT HAPPEN?

The wrist is made up of 2 forearm bones (the radius and the ulna), and 8 small bones called the carpal bones at the base of the hand.



The TFCC (the triangular fibrocartilage complex) is made up of ligaments and cartilage that joins the forearm bones to the little finger side of your hand. When you lean on your hand it helps support and cushion your wrist. It also allows you to rotate your hand palm up and palm down.

Injuries to the TFCC can occur when you fall onto your hand or break your wrist (especially if you break the tip of your ulna bone). The TFCC can also be injured by a sudden twisting force to your wrist like when a drill gets caught, or after forceful or repetitive hammering-type movements.

Some injuries can happen slowly over time as you get older (people over 50 years old) and you may notice symptoms after a minor injury. When you have injured your TFCC, symptoms may include swelling and pain on the little finger side of your wrist and initially your whole wrist may hurt. You may notice your pain is worse when twisting or lifting with your wrist e.g. turning a key, twisting a door handle, using a can opener or lifting a pan.

HOW IS A TFCC INJURY TREATED?

Hand Therapy

Your hand therapist will assess your wrist to determine which part has been injured. You may be referred for an x-ray to check for any broken bones, and find out the length of the ulna bone. A longer ulna bone can cause damage to the TFCC by bumping into it. Your hand therapist will make a treatment plan that will first reduce your pain and swelling and then gradually restore movement and strength to your wrist.

Hand therapy treatment may include

- Resting the wrist in a splint. The splint might need to go past your elbow especially if twisting your wrist is very painful. This will help the ligaments to heal. You may need to wear this for several weeks.
- Ice or heat can be used to reduce the swelling and pain. Anti-inflammatory medication may also be helpful.
- As the pain improves your hand therapist will show you exercises to strengthen the muscles that support the TFCC and stabilise the wrist.



Surgery

Your surgeon may do an MRI scan to look at the TFCC and will discuss with you if you might need surgery. This can be done arthroscopically, where a small camera and tool is inserted into the wrist, or by opening up the ulna side of wrist to repair the ligaments if needed.

After surgery you will need to wear a cast or splint for several weeks that will cover your wrist and maybe your forearm. Your hand therapist will guide your rehabilitation programme.

WHAT CAN I EXPECT FROM MY REHABILITATION?

The initial treatment is to rest the wrist for 4 - 6 weeks by wearing a splint that reduces aggravation of the pain. This helps the TFCC to heal. The splint is usually worn day and night and only removed to wash the hand. Your hand therapist will show you ways to maintain your movement and reduce pain.

Sometimes the area is also injected with a strong anti-inflammatory (corticosteroid) that helps reduce the swelling and symptoms.

Your hand therapist will then show you exercises to strengthen your wrist and improve the way your muscles work together so you can return to work, sports and everyday activity. It can take another 6 weeks to return to all your normal activity, and sometimes longer until you can put weight through your wrist and hand comfortably.

If you have had your symptoms a long time or if you have degenerative changes in the cartilage, symptoms may last for 4 - 6 months or longer. If hand therapy treatment hasn't helped, your hand therapist may refer you to a surgeon.



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Do

- Wear your splint.
- Follow your hand therapists' instructions about exercises and using your hand.
- Avoid or modify daily tasks that involve any strong gripping or lifting, especially when twisting the forearm.

Do Not

- Remove your splint without guidance from your hand therapist.

WHAT SHOULD I LOOK OUT FOR?

- Tell your hand therapist if your splint or plaster is too tight or uncomfortable, or if you have any numbness or pins and needles.
- If your wrist becomes red, swollen and painful you should stop your exercises and book an appointment to see your hand therapist. Elevation and ice may be helpful to reduce swelling.
- If your symptoms are getting worse book an appointment to see your hand therapist.

WHAT WILL HAPPEN IF I DO NOT HAVE TREATMENT?

In most cases pain and swelling will get worse with time and become much harder to treat. This will effect you in everyday tasks such as twisting open door handles, turning keys in locks, and lifting pots with your injured hand. Treatment is more effective if started within the first few months of symptoms.

CONTACT DETAILS AND REFERENCES

Your hand therapist is

Merivale Hand Clinic (03) 3559775

Atlas of Hand Anatomy and Clinical Implications. Yu Chase Strauch

Common Injuries in the Hand and Wrist. Ben Cunningham (Australian Registered Hand Therapist, Masters of Hand Therapy)

Conservative Management for Carpal Instabilities. Rosemary Prosser (Physiotherapist , Masters of Hand Therapy, College of Hand Therapy)

Immunohistochemical Analysis of wrist ligament Innervation in Relation to their Structural Composition Elizabeth Haget (MD), Marr Garcia-Elias (MD, PH.D.), Sture Forsgren (MD, PH.D.) and Bijorn-Ove Ljum (MD,PH.D)

<http://centrefor musculoskeletalmed.com.au/triangular-fibrocartilage-complex-tfcc-injuries/>

Houston Methodist – Patient's guide to triangular fibrocartilage complex (TFCC) injuries