

TRIANGULAR FIBROCARILAGE TEARS



■ ■ ■ Description

The triangular fibrocartilage complex (TFCC) is a cartilage-like structure, along with ligaments and the tendon sheath of the extensor carpi ulnaris, in the area between the ulna and hand bones. This cartilage (TFC) can become torn due to a traumatic injury or it may degenerate with time and age. This may cause pain, clicking, and symptoms in the ulnar side (the side by the little finger) of the wrist. The torn cartilage may heal, although this happens in the minority of patients.

■ ■ ■ Common Signs and Symptoms

- Pain and tenderness around the ulnar side of the wrist
- Pain that is worse with bending the wrist toward the little finger side or with extension, such as with push-ups
- Clunk or click, with or without pain, with wrist motion
- Swelling and crepitation (crackling sound) with motion of the wrist
- Pain with gripping or loading of the wrist

■ ■ ■ Causes

- Falling on an outstretched hand
- An ulna that is longer than the radius bone at the wrist, causing pinching of the triangular fibrocartilage between the end of the ulna and the hand bones; results in a tear of the triangular fibrocartilage

■ ■ ■ Risk Increases With

- Sports that require repetitive wrist and hand motion (rowing, tennis, hockey, golf, pole vault, baseball)
- Sports that cause loading at the hand and wrist, especially with the wrist extended (shot put, gymnastics, weightlifting, mountain biking)
- Sports with a risk of falling on an outstretched hand (football, rugby, soccer, rollerblading)
- Poor physical conditioning (strength and flexibility)
- Improper sports mechanics

■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice and competition.
- Maintain appropriate conditioning:
 - Arm, forearm, and wrist flexibility
 - Muscle strength and endurance
- Use proper sports technique.
- Functional braces may be effective in preventing injury, especially re-injury, by reducing forceful bending of the wrist.

■ ■ ■ Expected Outcome

This condition is often treatable with nonoperative management, although surgery may be required to alleviate symptoms.

■ ■ ■ Possible Complications

- Frequent recurrence of symptoms and repeated injury, resulting in a chronic problem, especially if activity is resumed too soon after injury; appropriately addressing the problem the first time decreases frequency of recurrence and optimizes healing time
- Prolonged healing time if activities are resumed too soon
- Injury to other structures of the wrist
- Arthritis of the wrist
- Wrist stiffness (loss of wrist motion)
- Locking and clicking of the wrist
- Prolonged disability
- Inability to return to the same level of sports
- Risks of surgery, including infection, bleeding, injury to nerves, persistent pain, increased pain, catching or locking, and need for further surgery

■ ■ ■ General Treatment Considerations

Initial treatment consists of medication and ice to relieve the pain and modification of the activity that initially caused the problem. A splint, brace, or cast is usually recommended. After immobilization, wrist range-of-motion and strengthening exercises are performed. A gradual return to sports is attempted. If symptoms persist, surgery is recommended. Surgery includes arthroscopy to repair or remove torn fibrocartilage, although if the ulna is particularly long, surgery to shorten the ulna bone may be recommended. After surgery, immobilization is necessary if the bone is shortened or the TFC is repaired. After immobilization (with or without surgery) or surgery, stretching and strengthening of the injured and weakened joint and surrounding muscles (due to the injury and the immobilization) are necessary. These may be done with or without the assistance of a physical therapist or athletic trainer.

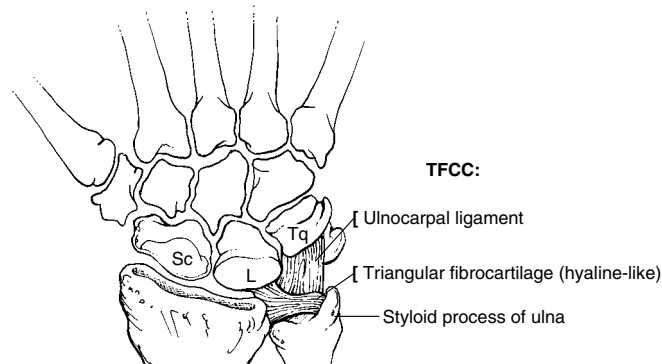


Figure 1

From Scuderi GR, McCann PD, Bruno PJ: Sports Medicine: Principles of Primary Care. St. Louis, Mosby, 1997, p. 268.

■ ■ ■ Medication

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Stronger pain relievers may be prescribed as necessary by your physician. Use only as directed and only as much as you need.

■ ■ ■ Cold Therapy

Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.

■ ■ ■ Notify Our Office If

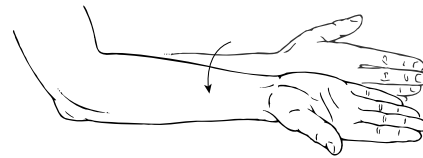
- Symptoms get worse or do not improve in 4 to 6 weeks despite treatment
- You experience pain, numbness, or coldness in the hand
- Blue, gray, or dusky color appears in the fingernails
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

EXERCISES

> RANGE OF MOTION AND STRETCHING EXERCISES • Triangular Fibrocartilage Tears

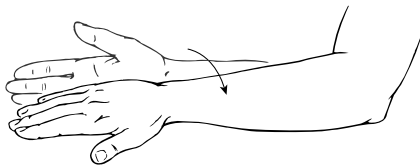
These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- Flexible tissue is more tolerant of the stresses placed on it during activities.
- Each stretch should be held for 20 to 30 seconds.
- A *gentle* stretching sensation should be felt.



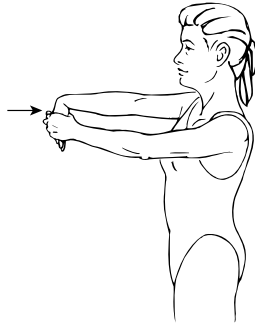
RANGE OF MOTION • Supination

1. Stand or sit with your elbow bent to 90 degrees.
2. Turn your palm upward as far as possible.
3. Hold this position for _____ seconds and then *slowly* return to the starting position.
4. Repeat exercise _____ times, _____ times per day.



RANGE OF MOTION • Pronation

1. Stand or sit with your elbow bent to 90 degrees.
2. Turn your palm down toward the floor as far as possible.
3. Hold this position for _____ seconds and then *slowly* return to the starting position.
4. Repeat exercise _____ times, _____ times per day.



RANGE OF MOTION • Wrist Flexion

1. Hold your _____ wrist as shown with the fingers pointing down toward the floor.
2. Pull down on the wrist until you feel a stretch.
3. Hold this position for _____ seconds. Repeat exercise _____ times, _____ times per day.
4. This exercise should be done with the elbow ***bent to 90 degrees / straight.*** (Physician, physical therapist, or athletic trainer should circle one of these.)



RANGE OF MOTION • Wrist Extension

1. Place the palm of your _____ hand flat on the top of a table as shown. Your fingers should be pointing backward.
2. Press down, bending your wrist and straightening your elbow until you feel a stretch.
3. Hold this position for _____ seconds.
4. Repeat exercise _____ times, _____ times per day.



RANGE OF MOTION • Wrist Extension

1. Hold your _____ wrist as shown with the fingers pointing away from the floor.
2. Pull up on the wrist until you feel a stretch.
3. Hold this position for _____ seconds.
4. Repeat exercise _____ times, _____ times per day.
5. This exercise should be done with the elbow ***bent to 90 degrees / straight.*** (Physician, physical therapist, or athletic trainer should circle one of these.)



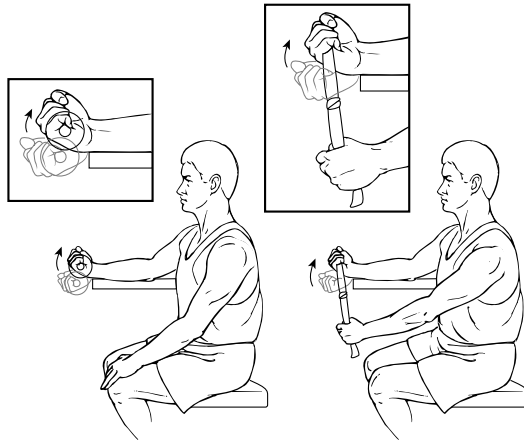
RANGE OF MOTION • Wrist Flexion

1. Place the back of your _____ hand flat on the top of a table as shown. Your shoulder should be turned in and your fingers facing away from your body.
2. Press down, bending your wrist and straightening your elbow until your feel a stretch.
3. Hold this position for _____ seconds.
4. Repeat exercise _____ times, _____ times per day.

> **STRENGTHENING EXERCISES** • Triangular Fibrocartilage Tears

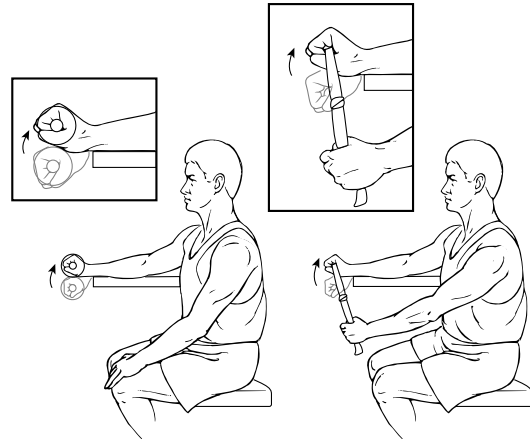
These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- Strong muscles with good endurance tolerate stress better.
- Do the exercises as *initially* prescribed by your physician, physical therapist, or athletic trainer. Progress slowly with each exercise, gradually increasing the number of repetitions and weight used under their guidance.



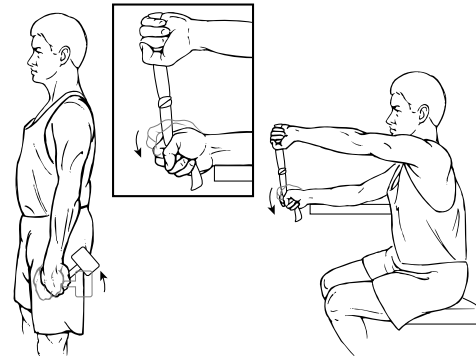
STRENGTH • Wrist Flexors

1. Sit or stand with your forearm supported as shown.
2. Using a _____ pound weight or a piece of rubber band/tubing, bend your wrist slowly upward toward you.
3. Hold this position for _____ seconds and then *slowly* lower the wrist back to the starting position.
4. Repeat exercise _____ times, _____ times per day.



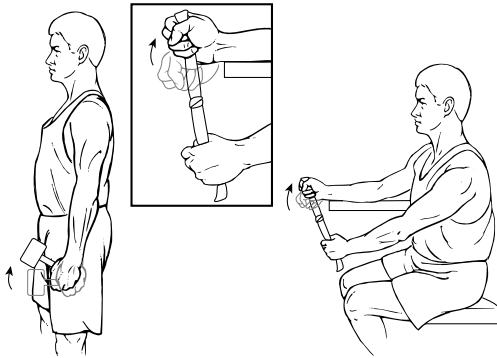
STRENGTH • Wrist Extensors

1. Sit or stand with your forearm supported as shown.
2. Using a _____ pound weight or a piece of rubber band/tubing, bend your wrist slowly upward toward you.
3. Hold this position for _____ seconds and then *slowly* lower the wrist back to the starting position.
4. Repeat exercise _____ times, _____ times per day.



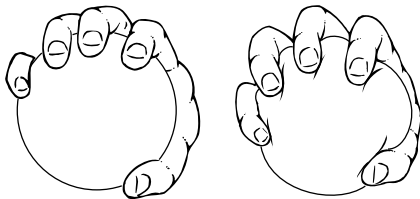
STRENGTH • Wrist, Ulnar Deviation

1. Stand with a _____ oz. hammer in your hand as shown, or sit holding on to the rubber band/tubing with your arm supported as shown.
2. Raise your hand upward behind you or pull down on the rubber tubing.
3. Hold this position for _____ seconds and then *slowly* lower the wrist back to the starting position.
4. Repeat exercise _____ times, _____ times per day.



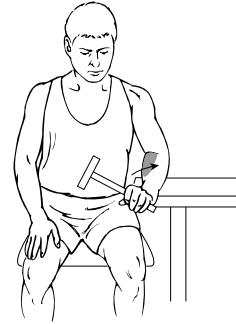
STRENGTH • Wrist, Radial Deviation

1. Stand with a _____ oz. hammer in your hand as shown, or sit holding on to the rubber band/tubing with your arm supported as shown.
2. Raise your hand upward in front of you or pull up on the rubber tubing.
3. Hold this position for _____ seconds and then *slowly* lower the wrist back to the starting position.
4. Repeat exercise _____ times, _____ times per day.



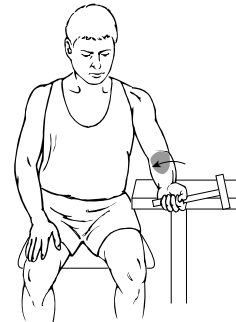
STRENGTH • Grip

1. Hold a wad of putty, soft modeling clay, a large sponge, a soft rubber ball, or a soft tennis ball in your hand as shown.
2. Squeeze as hard as you can.
3. Hold this position for _____ seconds.
4. Repeat exercise _____ times, _____ times per day.



STRENGTH • Supination

1. Sit with your forearm supported on a table and the hand over the edge and your palm facing the floor.
2. Hold a _____ oz. hammer or a stick with a weight on the end in your hand as shown.
3. Turn your palm and hand toward you to a “thumbs-up” position.
4. Hold this position for _____ seconds and then *slowly* return to the starting position.
5. Repeat exercise _____ times, _____ times per day.



STRENGTH • Pronation

1. Sit with your forearm supported on a table and the hand over the edge and your palm facing up toward the ceiling.
2. Hold a _____ oz. hammer or a stick with a weight on the end in your hand as shown.
3. Turn your palm and hand toward you to a “thumbs-up” position.
4. Hold this position for _____ seconds and then *slowly* return to the starting position.
5. Repeat exercise _____ times, _____ times per day.

Notes:

(Up to 4400 characters only)

Notes and suggestions