

# EXTENSOR CARPI ULNARIS TENDINITIS



## ■ ■ ■ Description

Extensor carpi ulnaris tendinitis is characterized by pain on the side of the wrist by the little finger due to inflammation of a tendon sheath (lining) or strain of a tendon to the wrist, the extensor carpi ulnaris (ECU). The lining secretes a fluid that lubricates the tendon. When the lining becomes inflamed, the tendon cannot glide smoothly in its covering (sheath). The ECU tendon is the anchor of the ECU muscle, which is important for straightening the wrist and bending it to the side of the little finger. This may be a grade 1 or 2 strain of the tendon. A *grade 1 strain* is a mild strain. There is a slight pull of the tendon without obvious tendon tearing (it is microscopic tendon tearing). There is no loss of strength and the tendon is the correct length. A *grade 2 strain* is a moderate strain. There is tearing of tendon fibers within the substance of the tendon or at the junction of the tendon at the bone or at the muscle. The length of the tendon or the whole muscle-tendon-bone unit is increased, and there is usually decreased strength. A *grade 3 strain* is a complete rupture of the tendon.

## ■ ■ ■ Common Signs and Symptoms

- Pain, tenderness, swelling, warmth, or redness on the little finger side of the wrist
- Pain that is worse with straightening the wrist or bending it toward the little finger
- Pain with gripping
- Limited motion of the wrist
- Crepitation (a crackling sound) when the tendon or wrist is moved or touched

## ■ ■ ■ Causes

- Strain from unusual use, overuse, increase in activity, or change in activity of the wrist, hand, or forearm
- Direct blow or injury to the muscles and tendon on the side of the wrist
- Repetitive motions of the hand and wrist due to friction of the tendon within the sheath (lining)
- With repeated injury, inflamed tendon and lining

## ■ ■ ■ Risk Increases With

- Sports that involve repetitive hand and wrist motions, including golfing and bowling
- Sports that require gripping (tennis, golf, weightlifting)
- Heavy labor
- Poor physical conditioning (strength and flexibility)
- Inadequate warm-up before practice or play

## ■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice or competition.
- Allow time for adequate rest and recovery between practices and competition.

- Maintain appropriate conditioning:
  - Forearm, wrist, and hand flexibility
  - Muscle strength and endurance
- Use proper technique.

## ■ ■ ■ Expected Outcome

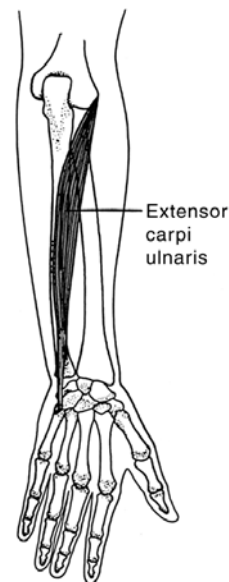
Usually curable within 6 weeks if treated appropriately with conservative treatment and resting of the affected area.

## ■ ■ ■ Possible Complications

- Prolonged healing time if not appropriately treated or if not given adequate time to heal
- Chronically inflamed tendon, causing persistent pain with activity that may progress to constant pain, restriction of motion of the tendon within the sheath, and potentially rupture of the tendon
- Recurrence of symptoms, especially if activity is resumed too soon
- Risks of surgery, including infection, bleeding, injury to nerves, continued pain, incomplete release of the tendon sheath, recurrence of symptoms, cutting of the tendon, and weakness of the wrist and grip

## ■ ■ ■ General Treatment Considerations

Initial treatment consists of medication and ice to relieve the pain and reduce the inflammation, stretching and strengthening exercises, and modification of the activity that initially



**Figure 1**

From Hislop HJ, Montgomery J: Daniels and Worthingham's Muscle Testing—Techniques of Manual Examination, 6th ed. Philadelphia, WB Saunders, 1995, p. 128.

caused the problem. These all can be carried out at home, although referral to a physical therapist or athletic trainer may be recommended. Occasionally a cast, brace, or splint may be prescribed to reduce motion, helping alleviate inflammation. An injection of cortisone to the area around the tendon is often attempted. Surgery to release the inflamed tendon lining may be needed.

### ■ ■ ■ 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. Contact your physician immediately if any bleeding, stomach upset, or signs of allergic reaction occur.
- Pain relievers are usually not prescribed for this condition. If your physician prescribes pain medications, use only as directed.
- Cortisone injections reduce inflammation. However, these are done only in extreme cases because there is a limit

to the number of times cortisone may be given; it may weaken muscle and tendon tissue. Anesthetics temporarily relieve pain.

### ■ ■ ■ Cold Therapy

Cold is used to relieve pain and reduce inflammation. 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 2 weeks despite treatment
- You experience pain, numbness, or coldness in the hand
- Blue, gray, or dusky color appears in the fingernails
- Any of the following occur after surgery: increased pain, swelling, redness, drainage, or bleeding in the surgical area or signs of infection
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

➤ **RANGE OF MOTION AND STRETCHING EXERCISES** • Extensor Carpi Ulnaris Tendinitis

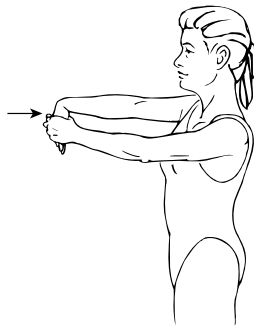
These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- 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** • 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 you feel a stretch.
3. Hold this position for \_\_\_\_\_ seconds.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



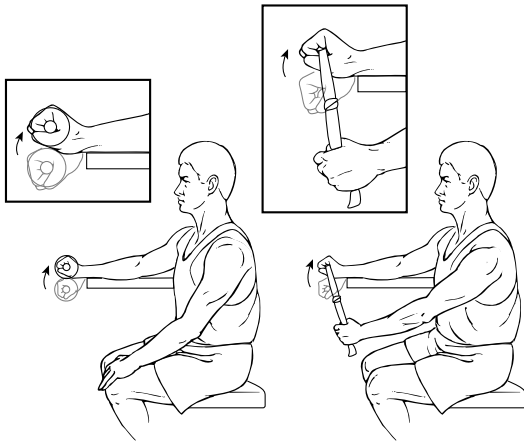
**RANGE OF MOTION** • Wrist Flexion

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)

➤ **STRENGTHENING EXERCISES** • Extensor Carpi Ulnaris Tendinitis

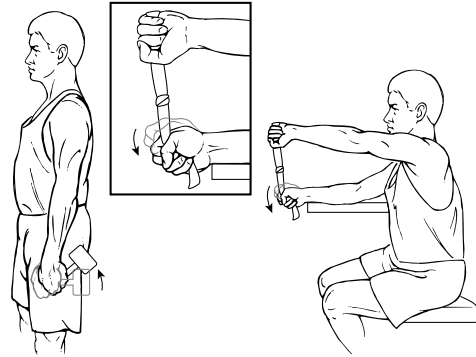
These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- 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.



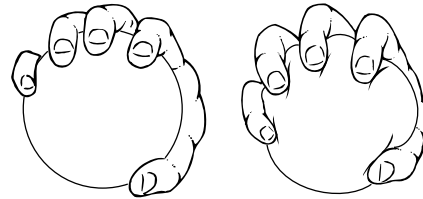
**STRENGTH** • Wrist Extensors

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** • 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.

Notes:

(Up to 4400 characters only)

Notes and suggestions