LATERAL EPICONDYLITIS (TENNIS ELBOW)

What is lateral epicondylitis (tennis elbow)?

Lateral epicondylitis (tennis elbow) is the name for a condition in which the bony bump at the outer side of the elbow is painful and tender.

The elbow joint is made up of the bone in the upper arm (humerus) and one of the bones in the lower arm (ulna). The bony bumps at the bottom of the humerus are called epicondyles. The bump on the outer side of the elbow, to which certain forearm muscles are attached by tendons, is called the lateral epicondyle.

Lateral epicondylitis is also referred to as wrist extensor tendinopathy.

How does it occur?

Tennis elbow results from overusing the muscles in your forearm that straighten and raise your hand and wrist. When these muscles are overused, the tendons are repeatedly tugged at the point of attachment (the lateral epicondyle). As a result, the tendons become inflamed. Repeated, tiny tears in the tendon tissue cause pain. Among the activities that can cause tennis elbow are tennis and other racket sports, carpentry, machine work, typing, and knitting.

What are the symptoms?

The symptoms of tennis elbow are:

- pain or tenderness on the outer side of the elbow
- pain when you straighten or raise your wrist and hand
- pain made worse by lifting a heavy object
- pain when you make a fist, grip an object, shake hands, or turn door handles
- pain that shoots from the elbow down into the forearm or up into the upper arm

How is it diagnosed?

Your healthcare provider will ask you about your daily and recreational activities. He or she will examine your elbow and arm and will have you do movements that may cause pain in the outer part of your elbow. You may have X-rays of the elbow.

How is it treated?

Treatment includes the following:

- Put an ice pack on your elbow for 20 to 30 minutes every 3 to 4 hours for 2 to 3 days or until the pain goes away.
- You can also do ice massage. Massage your elbow with ice by freezing water in a Styrofoam cup. Peel the top of the cup away to expose the ice and hold onto the bottom of the cup while you rub the ice over your elbow for 5 to 10 minutes.
- Wear a tennis elbow strap. This strap wraps around the forearm below the elbow, acting as a new attachment site for the forearm muscles and keeping them from pulling on the painful epicondyle.
- Take anti-inflammatory medicine.
- Do the exercises recommended by your healthcare provider. Your provider may also recommend physical therapy.

Your provider may recommend an injection of a corticosteroid medicine around the lateral epicondyle to reduce the inflammation.

In severe cases, surgery may be recommended.

While you are recovering from your injury you will need to avoid repetitive motion of the elbow and to change your sport or activity to one that does not make your condition worse. For example, you may need to run instead of play tennis. If you play tennis, your healthcare provider may advise you to use a tennis racket with a larger grip. Your provider may suggest improvements in the way you hold or swing your racket. Try to lift objects with your palm facing up to keep from overusing your lateral epicondyle.

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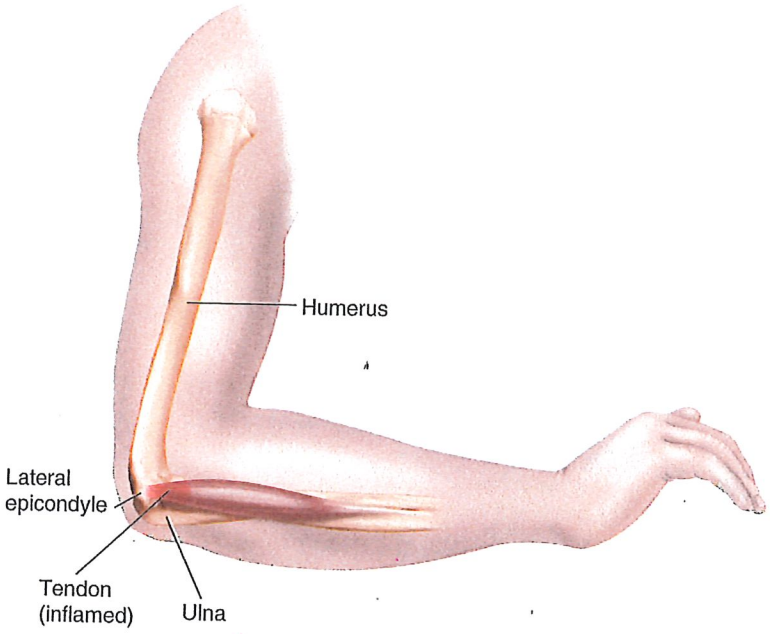


When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your elbow recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may return to your sport or activity when you are able to forcefully grip your tennis racket, bat, or golf club, or do activities such as working at a keyboard without pain in your elbow. In sports such as gymnastics, it is important that you are able to bear weight on your elbow painlessly. It is important that there is no swelling around your injured elbow and that it has regained its normal strength compared to your uninjured elbow. You must have full range of motion of your elbow.

How can I prevent tennis elbow?

To prevent tennis elbow:

- Use proper form during your activities, whether they are sports or job-related. For instance, be sure your tennis stroke is correct and that your tennis racket has the proper grip size.
- Warm up before playing tennis or doing other activities that involve your elbow or arm muscles. Gently stretch your elbow and arm muscles before and after exercise.
- Ice your elbow after exercise or work.

In job-related activities, be sure your posture is correct and that the position of your arms during your work doesn't cause overuse of your elbow or arm muscles.

LATERAL EPICONDYLITIS (TENNIS ELBOW) REHABILITATION EXERCISES

You may do the stretching exercises right away. You may do the strengthening exercises when stretching is nearly painless.

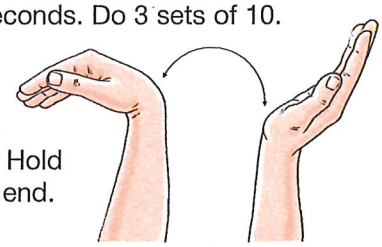
Stretching exercises

1. WRIST RANGE OF MOTION

A. Flexion: Gently bend your wrist forward. Hold for 5 seconds. Do 3 sets of 10.

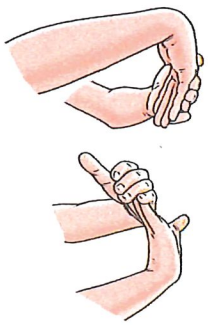
B. Extension: Gently bend your wrist backward. Hold this position 5 seconds. Do 3 sets of 10.

C. Side to side: Gently move your wrist from side to side (a handshake motion). Hold for 5 seconds at each end. Do 3 sets of 10.



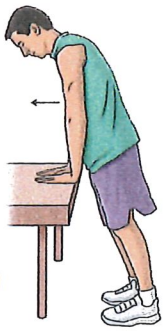
WRIST ACTIVE RANGE OF MOTION

2. WRIST STRETCH: With one hand, help to bend the opposite wrist down by pressing the back of your hand and holding it down for 15 to 30 seconds. Next, stretch the hand back by pressing the fingers in a backward direction and holding it for 15 to 30 seconds. Keep your elbow straight during this exercise. Do 3 sets on each hand.



WRIST STRETCH

3. WRIST EXTENSION STRETCH: Stand at a table with your palms down, fingers flat, and elbows straight. Lean your body weight forward. Hold this position for 15 seconds. Repeat 3 times.

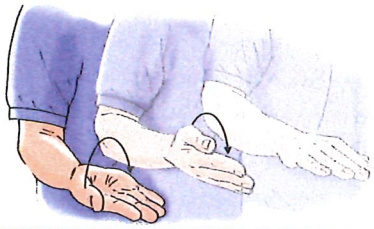


WRIST EXTENSION STRETCH

4. WRIST FLEXION STRETCH: Stand with the back of your hands on a table, palms facing up, fingers pointing toward your body, and elbows straight. Lean away from the table. Hold this position for 15 to 30 seconds. Repeat 3 times. During this stretch you may do ice massage over the area of pain.

WRIST FLEXION STRETCH

5. FOREARM PRONATION AND SUPINATION: With your elbow bent 90°, turn your palm upward and hold for 5 seconds. Slowly turn your palm downward and hold for 5 seconds. Make sure you keep your elbow at your side and bent 90° throughout this exercise. Do 3 sets of 10.

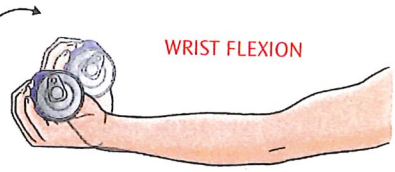


FOREARM PRONATION AND SUPINATION

When this exercise becomes pain free, do it with some weight in your hand such as a soup can or hammer handle.

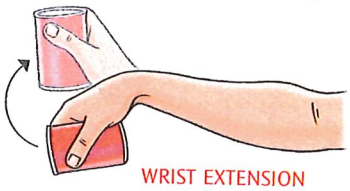
Strengthening exercises

6. WRIST FLEXION: Hold a can or hammer handle in your hand with your palm facing up. Bend your wrist upward. Slowly lower the weight and return to the starting position. Do 3 sets of 10. Gradually increase the weight of the can or weight you are holding.



WRIST FLEXION

7. WRIST EXTENSION: Hold a soup can or hammer handle in your hand with your palm facing down. Slowly bend your wrist upward. Slowly lower the weight down into the starting position. Do 3 sets of 10. Gradually increase the weight of the object you are holding.



WRIST EXTENSION

8. GRIP STRENGTHENING: Squeeze a rubber ball and hold for 5 seconds. Do 3 sets of 10.

GRIP STRENGTHENING

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