

Boulder Office

5387 Manhattan Circle #200
Boulder, CO 80303

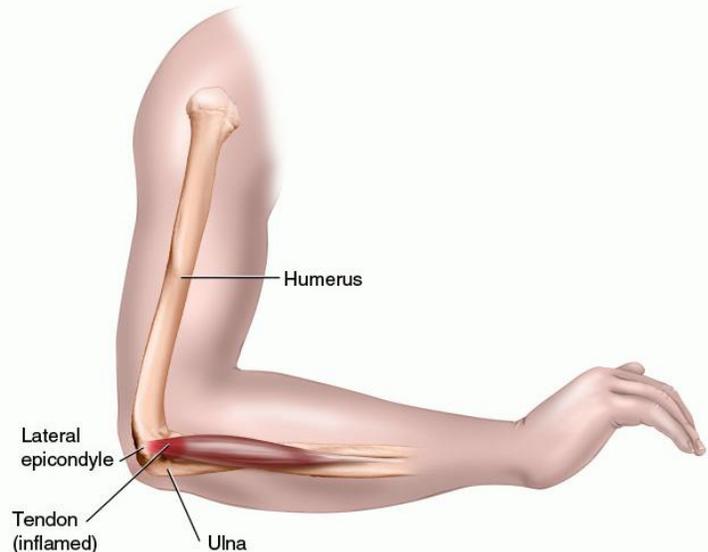
Steamboat Office

940 Central Park Drive
Steamboat Springs, CO 80487

Lateral Epicondylitis (Tennis Elbow)

Definition: 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.

Causes: Overuse of 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). This can be from tennis and other racket sports, carpentry, machine work, typing, and knitting.



Symptoms:

- 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

Treatment:

- Put an ice pack on your elbow for 15 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 Dixie 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 minutes.
- Wear a tennis elbow strap if the pain is relatively new. 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.
- Try to lift objects with your palm facing up to keep from overusing your lateral epicondyle. Use pain as your guide for all activity.
- 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 chronic cases, platelet rich plasma (PRP) may be injected.
- In severe cases, surgery may be recommended.

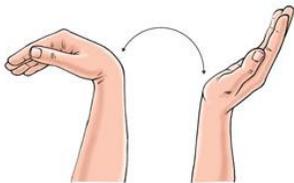
Boulder Office

5387 Manhattan Circle #200
Boulder, CO 80303

Steamboat Office

940 Central Park Drive
Steamboat Springs, CO 80487

Stretching exercises



Wrist active range of motion: Flexion and extension: With your elbow straight, bend your wrist forward and backward as far as you can. Do 3 sets of 10.

Wrist stretch: With your elbow straight and your palm facing downward, bend the wrist downward with the other hand and hold 15 to 30 seconds. Next, rotate the fingers outward and hold for 15 to 30 seconds. Do 3 sets on each hand.



Strengthening exercises

Ball squeeze: hold a tennis ball in your palm and squeeze the ball, hold for 10 second. Perform 3 sets of 10.

Eccentric strengthening: Take a light weight or small can and grip it in the affected hand. Use your other had to help position the weight/can so that the wrist is bent backward. Now, position the arm in front of your body, elbow straight, and palm facing downward. Slowly lower the weight/can until the fingertips are pointed toward you and you can feel a stretch in your elbow. Bend the elbow and again use the other hand to help re-position the weight/can. Do 3 sets of 10. There is also a product made by TheraBand called the FlexBar that can help you do this exercise.



Icing: After exercising, massage across the area of tenderness with an ice cube for about 5 minutes. You might also try filling a paper cup half-full with water and freeze; peel back a portion of the paper cup to expose the ice and massage on the area

Boulder Office

5387 Manhattan Circle #200
Boulder, CO 80303

Steamboat Office

940 Central Park Drive
Steamboat Springs, CO 80487

What about bracing?

Lateral counter-force bracing (tennis elbow strap) is believed to reduce the amount of tug of the muscle on the bone where it attaches. The counter-force brace is essentially an inelastic cuff that is worn around the near forearm. This seems to be more effective if the elbow pain is new. If the pain has been present for over 6 months it may not be helpful. If your doctor recommends you use the counter-force brace, it is still important to perform your stretching and strengthening exercises out of the brace even if the brace relieves the pain.

Making modifications to equipment

Using the wrong tennis racquet or even the wrong size of grip (e.g. hammer, ski pole, etc.) may have been a contributing factor to your injury. Guidelines for racquet selection for non-tournament players are provided below. You can modify these recommendations for your specific situation (such as increasing grip width for a ski pole or hammer).

1. **Racquet material** - Graphite composites are currently considered the best in terms of torsion and vibration control.
2. **Head size** - A midsize racquet (95-110 square inches) is preferred. The popular oversized racquets cause problems because they make the arm susceptible to injury due to the increased torque effect of shots hit off-center.
3. **String tension** - stay at the lower end of the manufacturer's recommendation. While higher string tensions provide improved ball control, it also increases the torque and vibration experienced by the arm.
4. **Stringing material** - synthetic nylon (re-string every 6 months).
5. **Grip size** - A grip too large or too small lessens control and promotes excessive wrist movement. To measure an appropriate grip size for your hand see image to the right

