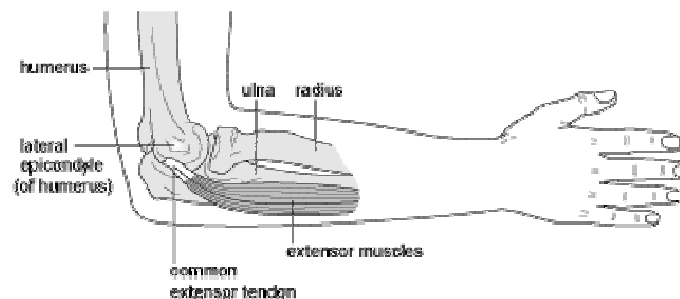


## Tennis elbow

Tennis elbow ('Lateral Epicondylitis') is pain in the muscles and tendons on the outside of the arm around the elbow joint. The injury can occur in a single incident such as a blow to the arm. More commonly, it develops after overusing the affected arm.

Tennis elbow isn't reserved solely for tennis players. Anyone who regularly carries out an activity that involves repeatedly extending or rotating the wrist and using force at the same time can develop this condition. For example, repeatedly using a screwdriver, scissors, throwing, gardening all may result in tennis elbow. Typing or using the computer mouse in an adverse position commonly can cause symptoms too. Within the game of tennis, it tends to be aggravated by bad backhand technique or a wrong-sized racket grip.

The source of the pain is damage to a tendon that joins the "extensor" muscles of the forearm to the upper arm bone (humerus). This tendon is called the common extensor tendon.



The elbow

Overuse causes tiny tears in the tendon. If the arm is not sufficiently rested after activity, the injury is likely to become worse, with a more serious tear or even rupture of the tendon.

### **Symptoms**

Tennis elbow usually affects the arm of your dominant hand (right arm if you are right-handed).

The symptoms usually develop gradually. The main symptom is pain and tenderness in the outside of the elbow and sometimes in the muscles on top of the forearm. The pain may go away after a day or so. But if the activity that triggered the pain is repeated soon after, the pain is likely to come back and may become progressively worse as the tendon damage builds up.

The pain may become constant, and even interrupt your sleep. Other symptoms include morning stiffness of the arm and pain on turning door handles or shaking hands. As the body tries to compensate for the weakness in the elbow, you may also get pain or stiffness in other parts of the affected arm, the shoulder or neck.

Most people with mild symptoms of tennis elbow can try home treatments. However, if symptoms do not improve after a couple of weeks, you should see a doctor.

### ***Diagnosing tennis elbow***

In those with chronic pain in particular, a number of conditions can mimic tennis elbow and the doctor will seek to exclude these. The condition can be diagnosed on the basis of listening to the story and a good clinical examination. A diagnostic ultrasound is also very useful. X-rays are not usually required, but may be recommended to rule out other conditions, such as arthritis, that can cause elbow pain. An MRI scan may also be indicated.

### **Treatment**

Tennis elbow that is dealt with promptly is more likely to heal quickly, with a full return to normal strength. Relative rest – that is avoiding activities that trigger the pain – is usually recommended.

### **Home treatment**

Mild cases of tennis elbow can be treated at home. The priority is to rest the injured tendon by stopping or changing the activity causing the problem. To relieve symptoms you can:

**Apply an ice pack** - for a maximum of 20 minutes, up to 6 times/day. A bag of frozen peas wrapped in a damp cloth works well because it moulds to the shape of the arm. Ensure that the skin does not change colour (the sign of an ice burn). If the skin has turned bright pink or red after a few minutes, stop using the ice. Applying a film of oil (cooking oil will do) to the skin before applying the pack helps to avoid burning the skin.

**Anti-inflammatory drugs** – used topically preferably – may help. EG diclofenac gel, applied to the area 3-4 times daily. If necessary take ibuprofen tablets - according to the directions on the packet, up to the maximum daily dose. Avoid these if you have a history of indigestion or stomach ulcers, and possibly if you have asthma.

**Wear an arm brace** - this is a form of strapping made of silicone or other plastic material that can be worn around the forearm and elbow to help restrict movement of the tendon. Braces are available from larger pharmacies and sports shops.

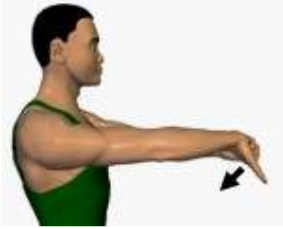
When doing a manual task you really cannot avoid, change the grip size; use a tool with a smaller grip. If available, contact your employer's occupational health advisers.

### **Exercise & stretching**

**STRETCH** - to reduce tension along the forearm/elbow muscles.

**Technique:** Warm up until you start to sweat, stretch to a gentle pull, and hold without

bouncing for 20 seconds. Do 6-8 repetitions twice daily, 7 days per week.



#### Backhand Stretch

- Straighten your elbow.
- Grab the back of your hand with your other hand and pull down until you feel a stretch on the back of your forearm.



#### Forehand Stretch

- Straighten your elbow.
- Grasp your fingers with your other hand.
- Slowly pull your hand up and back until you feel a gentle stretch along the palm-side of your wrist and forearm.

**STRENGTHEN** - elbow muscles and tendons to prevent re-injury.

**Technique:** Must not cause elbow pain in the first two sets. If it does cause pain, wait one week and try again. Do three sets of ten repetitions, 5 days per week.




#### Backhand

- Sit with your injured elbow and palm down.
- Slowly bend your wrist up as far as possible.
- Hold for two counts, and then slowly lower.
- Start with no weight, if not painful, try one pound.



#### Wrist Rotation

- Sit with your elbow straight, forearm resting on your knee.
- Hold 1-2 pounds.
- Slowly rotate you palm down, and then up.

	<p><b>Thumb Up</b></p> <ul style="list-style-type: none"> <li>• Sit with you injured elbow straight, forearm resting on your knee and thumb up.</li> <li>• Slowly bend your wrist up as far as possible.</li> <li>• Hold for two counts, and then slowly lower.</li> <li>• Start with no weight, if not painful, try one pound.</li> </ul>
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**See a Doctor if:**

- Your elbow pain continues after three weeks of self-care.
- You feel sharp, shooting pain even at rest (sitting and sleeping).
- Your elbow swells.
- You see or feel a dent in the tendon (possible tear).
- You feel unusual numbness or tingling in your forearm or hand (possible circulation or nerve problems).
- Your hand or fingers are blue and cold (possible circulation problem).
- Your elbow is red and hot and you have a fever (possible infection).

**Other treatments**

There are other therapies suitable for treatment of tennis elbow. If your pain continues, you should see a doctor to ensure the diagnosis is correct and to progress treatment. Stronger types or doses of anti-inflammatories may be prescribed.

Injection therapies may be indicated. There are various forms of injections that are now used in treating the condition. Cortisone has been commonly used for many years; there are also newer types of injection that may be helpful.

Shock wave and radial wave therapy are forms of ultrasound/high energy therapy that can relieve the pain from the condition.

For a completely ruptured tendon, or when no improvement has been obtained after many months of rest and rehabilitation, surgery may be an option. However, very few people need surgery.

**Physiotherapy**

Treatment will include exercises both for the arm and for the neck, as some arm pain can be referred to the elbow. to stretch and strengthen the forearm muscles. Some of these are shown below and you can start these before you see a physiotherapist. If necessary they may then provide a structured approach to returning to the activity that caused the problem, involving strengthening muscles, adapting technique and preventing further damage.

A programme of resistance training, using weights, will strengthen the arm muscles. You can return to sport when the arm is pain-free and strength is back to about four-fifths of what it was before the injury.

Sportspeople may need advice and training from a coach to correct errors of technique and equipment.