

## Tennis Elbow (Lateral Epicondylitis)

### What is tennis elbow?

Tennis elbow, or *lateral epicondylitis*, is a painful condition of the elbow caused by overuse. Not surprisingly, playing tennis or other racquet sports can cause this condition. But several other sports, work and activities can also put you at risk. Tennis elbow is an inflammation of the tendons that join the forearm muscles on the outside of the elbow. The forearm muscles and tendons become damaged from repeating the same motions again and again. This leads to pain and tenderness on the outside of the elbow.

### Anatomy

Your elbow joint is a joint made up of three bones: your upper arm bone (humerus) and the two bones in your forearm (radius and ulna). There are bony bumps at the bottom of the humerus called epicondyles. The bony bump on the outside (lateral side) of the elbow is called the lateral epicondyle.

Muscles, ligaments, and tendons hold the elbow joint together.



Lateral epicondylitis, or tennis elbow, involves the muscles and tendons of your forearm. Your forearm muscles extend your wrist and fingers. Your forearm tendons -- often called extensors -- attach the muscles to bone. They attach on the lateral epicondyle. The tendon usually involved in tennis elbow is called the Extensor Carpi Radialis Brevis (ECRB).

### What causes Tennis elbow?

#### Overuse

Recent studies show that tennis elbow is often due to damage to a specific forearm muscle. The extensor carpi radialis brevis (ECRB) muscle helps stabilize the wrist when the elbow is straight. When the ECRB is weakened from overuse, microscopic tears form in the tendon where it attaches to the bone. This leads to inflammation and pain. This can cause gradual wear and tear of the muscle over time.

#### Activities

Athletes are not the only people who get tennis elbow. Many people with tennis elbow participate in work or recreational activities that require repetitive and vigorous use of the forearm muscle. Painters, plumbers, and carpenters are particularly prone to developing tennis elbow. Studies have shown that auto workers, cooks, and even butchers get tennis elbow more often than the rest of the population. It is thought that the repetition and weight lifting required in these occupations leads to injury.

#### Age

Most people who get tennis elbow are between the ages of 30 and 50

#### Unknown

Lateral epicondylitis can occur without any recognized repetitive injury.

## **What are the symptoms of tennis elbow?**

The symptoms of tennis elbow develop gradually. In most cases, the pain begins as mild and slowly worsens over weeks and months. There is usually no specific injury associated with the start of symptoms.

Common signs and symptoms of tennis elbow include:

- Pain or burning on the outer part of your elbow
- Weak grip strength

The symptoms are often worsened with forearm activity, such as holding a racquet, turning a wrench, or shaking hands. Your dominant arm is most often affected; however both arms can be affected.

## **What happens during your doctors visit?**

Your doctor will examine you after taking history and may ask for X rays, MRI scan and/or EMG studies to rule out various other causes.

## **What are the treatment options for tennis elbow?**

### *Nonsurgical Treatment*

Many patients respond initially to non surgical treatment which includes,

Rest, Non-steroidal anti-inflammatory medicines, Equipment check and activity modification, Physical therapy, Brace, Steroid injections.

### *Surgical Treatment*

If your symptoms do not respond inspite of nonsurgical treatments, your doctor may recommend surgery.

Most surgical procedures for tennis elbow involve removing diseased muscle and reattaching healthy muscle back to bone.

*Open surgery.* The most common approach to tennis elbow repair is open surgery. This involves making an incision over the elbow. Open surgery is usually performed as a day care surgery. It rarely requires an overnight stay at the hospital.

*Arthroscopic surgery.* Tennis elbow can also be repaired using tiny instruments and small incisions. Like open surgery, this is a same-day or Day care procedure.

Talk with your doctor about the options. Discuss the results your doctor has had, and any risks associated with each procedure.

## **What is the recovery and rehabilitation like after surgery?**

Following surgery, your arm may be immobilized temporarily with a splint. About 1 week later, the sutures and splint are removed.

After the splint is removed, exercises are started to stretch the elbow and restore flexibility. Light, gradual strengthening exercises are started about 2 months after surgery.

Your doctor will tell you when you can return to vigorous work or athletic activity. Tennis elbow surgery is considered successful in 80% to 90% of patients.



# Shoulder Surgeon