

TENNIS ELBOW

National Athletic Trainers Association

WHAT IS TENNIS ELBOW?

Tennis elbow is localized pain over the bony prominence called the lateral epicondyle on the outside of the elbow. It may also be referred to as lateral epicondylitis.

WHAT CAUSES IT?

Tennis elbow is caused by repetitive stress on the muscles that are connected to the lateral epicondyle. These muscles extend along the top, or dorsal, side of the forearm to the wrist and are responsible for extending or bending back the wrist and fingers.

If too much stress is placed on these muscles, micro tears can occur. These micro tears become inflamed and cause pain that is usually localized at the muscle's origin but can occasionally radiate down the forearm.

The pain increases with activities that require contraction of these muscles: shaking hands, turning doorknobs, picking up objects with the palm down, or hitting a backhand in tennis.

HOW DO I KNOW IF I HAVE TENNIS ELBOW?

No special tests are needed to make the diagnosis. This diagnosis is made by history and physical examination of the patient. The patient may present symptoms consistent with tennis elbow and has pain when pressure is applied to the outside of the elbow. The patient frequently cannot remember an injury, but will have noticed the pain either at the beginning or end of an activity that requires wrist and elbow movement.

X-rays are not required when evaluating a patient with tennis elbow symptoms, but a doctor may wish to order them, just to make certain that the bone structures of the elbow are normal.

HOW IS TENNIS ELBOW TREATED?

Like many overuse injuries of sport, there is no sure fire treatment. Rest itself does not necessarily cure the problem, even though it may decrease the pain. With use of the elbow again, however, the pain returns. Some physicians believe that the key to healing this overuse injury lies in increasing the circulation to the area while decreasing the tightness of the muscles. Therefore, stretching and strengthening exercises are frequently helpful.

The following exercise may help. Support the forearm on a flat surface with the wrist and hand free. Hold a 1-2 pound weight in the hand. Keeping the palm down, slowly extend the wrist. Bring it backward, or up, and then bend it forward, or down. The muscles on the top of the forearm should contract when the wrist is moved upward and stretch when the hand is moved downward.

To balance the forearm muscles, these exercises should be repeated with the palm facing up. Each exercise should be repeated ten times slowly.

A loop of rubber tubing, with one end attached to a table leg or held on the floor with a foot can be used to provide resistance instead of the weight. This will also increase circulation to the area.

A snug but not tight strap worn around the top of the forearm often decreases the pull of the muscles on the lateral epicondyle and lessens pain. When symptoms are present during everyday activities, the band should be worn during all waking hours. Occasionally, an elbow sleeve with a pad specially designed to put gentle pressure over the forearm muscles can be used. This sleeve had the advantage of not only changing the pull of the muscles, but keeping them warm as well which increase their flexibility and circulation.

A physician may also prescribe ultrasound or electrical stimulation to increase circulation to the area.

Non steroidal anti-inflammatory medications, like aspirin, ibuprofen, ketoprofen, or various prescription drugs, may decrease the irritation caused by the inflammation. However, if there is diminished circulation to the area, these oral medications may not provide enough dosage to alter the symptoms.

Icing the joint after activity may also decrease the inflammation and relieve the pain.

TIPS FOR PREVENTING INJURY

Warm up well before play. Muscles are like silly putty and stretch more when they are warm. Make sure to keep the muscles warm as you play.

Choose appropriate equipment and maintain it properly. A racquet handle that is too big or too small head, may increase stress to the elbow and wrist during play.

Condition for the activity by stretching and strengthening all the muscles used in the sport. Also evaluate play techniques to make sure that they are not irritating the condition.

American Orthopaedic Society for Sports Medicine
6300 North River Road, Suite 200
Rosemont, Illinois 60018
<http://www.sportsmed.org>

National Athletic Trainers Association
2952 Stemmons Freeway
Dallas, Texas 75247
<http://www.nata.org>