

Lateral Epicondylitis

Medical Condition of the Elbow

Lateral epicondylitis is a painful condition of the elbow. It is also known as tennis elbow because it is common in tennis players. It is generally an overuse phenomenon resulting in inflammation of the epicondyle.

Anatomy

The elbow joint is made up of three bones, the humerus, radius and ulna. There are bony bumps at the bottom of the humerus called epicondyles. The bony bump on the outside of the elbow is called the lateral epicondyle.

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

Lateral epicondylitis involves the muscles and tendons of the forearm. The forearm muscles extend the wrist and fingers. The 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.



Causes

Overuse of the forearm extensor muscles, particularly the extensor carpi radialis brevis, along with repeated impact can increase the risk of lateral epicondylitis. The extensor carpi radialis brevis muscle helps stabilise the wrist when the elbow is straight. When it is weakened from overuse, microscopic tears appear in the tendon that attaches it to the lateral epicondyle. This gives rise to inflammation and pain. The extensor carpi radialis brevis itself can also be damaged, from rubbing bone over time, when the elbow straightens and bends.

Lateral epicondylitis affects all kinds of people especially those who 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 autoworkers, 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. Lateral epicondylitis can affect people of all ages, though more commonly it has been found in the age group of thirty to fifty.

Lateral epicondylitis can occur without any recognised repetitive injury. This occurrence is called "insidious" or of an unknown cause.

Symptoms

The pain caused by epicondylitis generally occurs gradually, getting worse over a period of weeks or months, and there is usually no one specific injury related to onset. It usually affects the dominant arm, although some sufferers get it bilaterally. It causes pain on the outside of the elbows which increases with activity. Sufferers may also feel a weakness in their forearm, or weak grip strength.

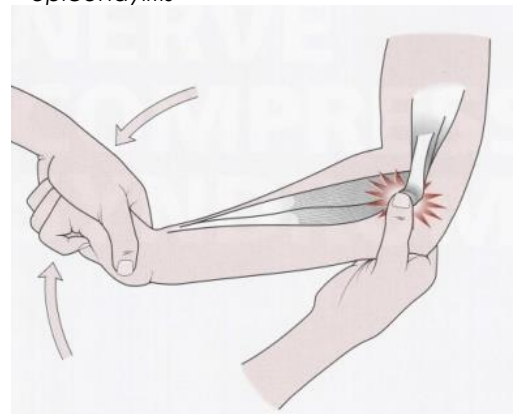
Treatment

The provocation test for lateral epicondylitis can be seen in the picture below. The doctor may recommend diagnostic tests to rule out other conditions such as arthritis. Most cases recover without surgery. The first step towards healing is to rest the affected arm. This means ceasing all activities which may aggravate the condition. Rest may also be accompanied by non steroidal anti-inflammatories (NSAID's) to aid in pain relief and reduce swelling. Injection into the muscle with a steroid to help reduce the inflammation may be indicated, and braces worn around the elbow may assist in resting the area.

If the condition has not cleared up after six to twelve months, surgery may be recommended by an orthopaedic surgeon. This will involve the Surgeon removing the damaged tissue and reattaching good muscle to bone. The arm is then splinted for a week and then gradually, rehabilitation exercises can begin. Full recovery will take approximately six months depending on the patient.



Location of pain with lateral epicondylitis



Provocation test for lateral epicondylitis

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