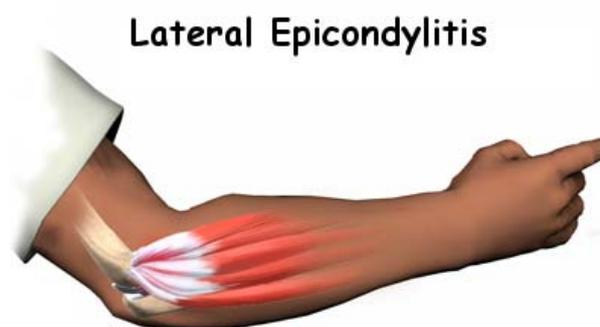




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Lateral Epicondylitis (Tennis Elbow)



Lateral epicondylitis, commonly known as tennis elbow, is not limited to tennis players. The backhand swing in tennis can strain the muscles and tendons of the elbow in a way that leads to tennis elbow. But many other types of repetitive activities can also lead to tennis elbow: painting with a brush or roller, running a chain saw, and using many types of hand tools.

What parts of the elbow are affected?

Tennis elbow causes pain that starts on the outside bump of the elbow, the lateral epicondyle. The forearm muscles that bend the wrist back (the extensors) attach on the **lateral epicondyle** and are connected by a single tendon. Tendons connect muscles to bone.

When you bend your wrist back or grip with your hand, the wrist extensor muscles contract. The contracting muscles pull on the extensor tendon. The forces that pull on these tendons can build when you grip things, hit a tennis ball in a backhand swing in tennis, or do other similar actions.

Why did I develop tennis elbow?

Overuse of the muscles and tendons of the forearm and elbow are the most common reason people develop tennis elbow. Repeating some types of activities over and over again can put too much strain on the elbow tendons. These activities are not necessarily high-level sports competition. Hammering nails, picking up heavy buckets, or pruning shrubs can all cause the pain of tennis elbow.

However, tennis elbow often does not involve inflammation. Rather, the problem is within the cells of the tendon. Doctors call this condition tendonosis. In tendonosis, wear and tear is thought to lead to tissue degeneration. A degenerated tendon usually has an **abnormal arrangement of collagen fibers**.

No one really knows exactly what causes tendonosis. After a while, the tendons stop trying to heal. The **scar tissue** never has a chance to fully heal, leaving the injured areas weakened and painful.

What does tennis elbow feel like?

The main symptom of tennis elbow is tenderness and pain that starts at the lateral epicondyle of the elbow.

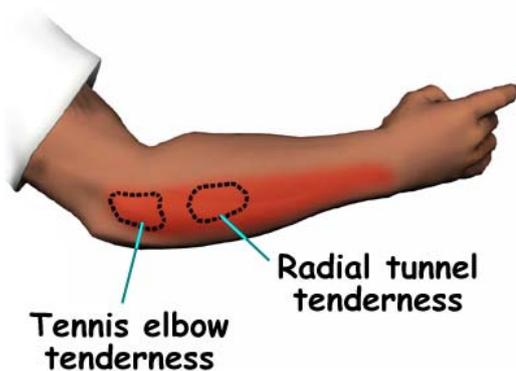
The pain may spread down the forearm.

It may go as far as the back of the middle and ring fingers. The forearm muscles may also feel tight and sore.

The pain usually gets worse when you bend your wrist backward, turn your palm upward, or hold something with a stiff wrist or straightened elbow.

Grasping items also makes the pain worse.

Just reaching into the refrigerator to get a carton of milk can cause pain..



How can my doctor be sure I have tennis elbow?

Your doctor will first take a detailed medical history.

The physical exam is often most helpful in diagnosing tennis elbow. Your doctor may position your wrist and arm so you feel a stretch on the forearm muscles and tendons. This is usually painful with tennis elbow. There are also other tests for wrist and forearm strength that can be used to detect tennis elbow.

You may need to get X-rays of your elbow. The X-rays mostly help your doctor rule out other problems with the elbow joint.

Tennis elbow symptoms are very similar to a condition called radial tunnel syndrome. This condition is caused by pressure on the radial nerve as it crosses the elbow. If your pain does not respond to treatments for tennis elbow, your doctor may suggest tests to rule out problems with the radial nerve.

What can I do to make my pain go away?

Nonsurgical Treatment

The key to nonsurgical treatment is to keep the collagen from breaking down further. The goal is to help the tendon heal.

1. Anti-inflammatory medications such as ibuprofen may give you some relief.
2. May inject the elbow with cortisone. Cortisone is a powerful anti-inflammatory medication. Its benefits are temporary, but they can last for a period of weeks to several months.
3. Ultrasound to guide a needle into the sore area.
4. Shock wave therapy is a newer form of nonsurgical treatment. Not very effective for tennis elbow
5. A physical or occupational therapist.
6. an elbow strap that wraps around the upper forearm

— Forearm extensor stretch



Place the back of the hand (dorsal surface) against the wall and apply gentle pressure to achieve a stretch to the forearm extensor tissues. Hold one minute and repeat three times per day. This exercise is useful in the rehabilitation of lateral epicondylitis; it can be modified for medial epicondyle involvement by using the palm of the hand, fingers pointing down, thereby stretching the flexor muscles

Wrist extensor strengthening



With the palm down, extend the wrist against the resistance of a one to five pound weight held in the hand. This exercise is repeated eight to ten times per daily session. The weight and/or repetitions should be decreased if elbow or epicondylar pain increases

Local steroid:

1-2 injection of Kenacort [cortisone] may be beneficial

Surgical treatment: is indicated rarely when non-operative treatment fails to relieve pain. Extensor carpi radialis muscle is released. It may take 6-8 weeks before one may feel comfortable with their elbow.

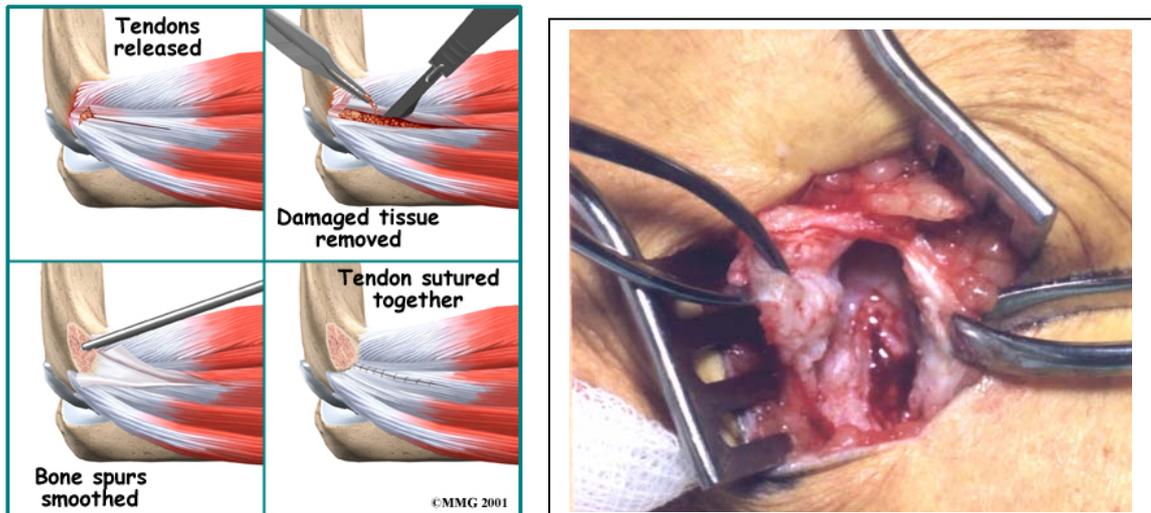
Surgery

Sometimes nonsurgical treatment fails to stop the pain or help patients regain use of the elbow. In these cases, surgery may be necessary.

Tendon Release

A commonly used surgery for tennis elbow is called a lateral epicondyle release. This surgery takes tension off the extensor tendon. The surgeon begins by making an incision along the arm over the lateral epicondyle. Soft tissues are gently moved aside so the surgeon can see the point where the extensor tendon attaches on the lateral epicondyle.

The extensor tendon is then cut where it connects to the lateral epicondyle. The surgeon splits the tendon and takes out any extra scar tissue. Any bone spurs found on the lateral epicondyle are removed. (Bone spurs are pointed bumps that can grow on the surface of the bones. The skin is then stitched together.



How soon can I use my elbow again?

Rehabilitation takes much longer after surgery. Immediately after surgery, your elbow is placed in a removable splint that keeps your elbow bent at a 90-degree angle.

Therapist may also use massage to ease muscle spasm and pain.

Gradually work into more active stretching and strengthening exercises. You just need to be careful to avoid doing too much, too quickly. Active therapy starts about two weeks after surgery.

At about six weeks, you start doing more active strengthening. As you progress, your therapist will teach you exercises to strengthen and stabilize the muscles and joints of the wrist, elbow, and shoulder.