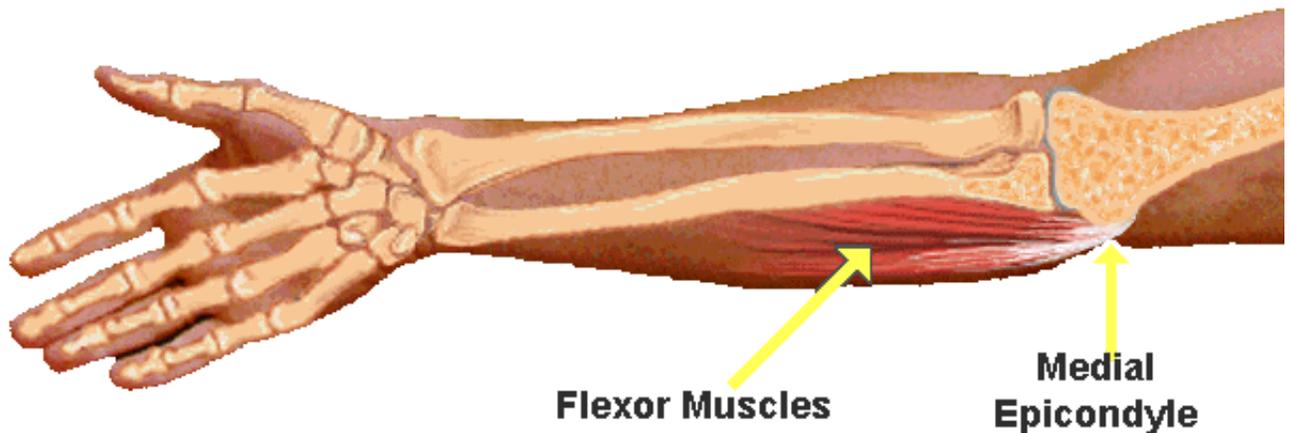


Medial Epicondylitis

Introduction Medial epicondylitis is sometimes referred to as Golfer's Elbow - not because only golfers get the problem, but because the golf swing is a common activity that can cause the problem. There are many other activities that can result in medial epicondylitis - such as chopping wood with an ax, running a chain saw, and using many types of hand tools continuously. Each of these activities use the same muscles and can result in medial epicondylitis when these muscles are overused.

Anatomy The muscles of the forearm that pull the wrist down are called wrist flexors. These are the muscles on the palm side of the forearm. Most of the muscles that are wrist flexors join together and attach to one main tendon at the elbow. This tendon is called the common flexor tendon. It attaches to the inside bump of the elbow called the medial epicondyle.



As the wrist is flexed or the hand used to grip, the muscles contract and pull against the tendons. For example, the force placed on the flexor muscles during a golf swing pulls on the tendons at the medial epicondyle.

Causes As we age, a tendon is subject to degeneration within the substance of the tendon. The term degeneration means that wear and tear occurs in the tendon over time and leads to a situation where the tendon is weaker than normal. Degeneration in a tendon usually shows up as a loss of the normal arrangement of the fibers of the tendon. Tendons are made up of strands of a material called collagen (think of a tendon as similar to a nylon rope and the strands of collagen as the nylon strands). Some of the individual strands of the tendon become jumbled due to the degeneration, other fibers break, and the tendon loses strength. The healing process in the tendon causes the tendon to become thickened as scar tissue tries to repair the tendon. This condition is called tendinosis.

One theory on the cause of tendinosis is that small tears in the tendon occur through overuse. They begin to heal but when re-injured by continued use, the tendons seem to finally give up on trying to heal and a condition called angiofibroblastic degeneration

begins to take over. (Think of this as scar tissue that never reaches maturity and remains weak and painful.) Other physicians feel that the tendon changes are primarily a result of decreased blood flow in the area, a sort of heart attack of the tendon. The end result is still the formation of the angiofibroblastic tendinosis tissue. The same events can happen with repeated strains like shoveling, gardening, or in the acceleration stroke of swimming.

Symptoms Symptoms include tenderness and pain at the medial epicondyle. The pain can be made worse by flexing (bending) the wrist. The pain may spread down the forearm. Activities that use the flexor muscles in a bending motion or grasping with the hand can make matters worse.

Diagnosis The diagnosis of medial epicondylitis is usually made by physical examination alone. Tenderness in the area of attachment of the medial flexor tendons and pain with use of the flexor muscles are the primary symptoms. Medial Epicondylitis can sometimes mimic a pinched ulnar nerve in a condition called Cubital Tunnel Syndrome, and may require tests to examine the nerve.

Treatment Ice: Ice decreases the size of blood vessels in the sore area, halting inflammation and relieving pain. Choices of application include cold packs, ice bags, or ice massage. Ice massage is an easy and effective way to provide first aid. Simply freeze water in a paper cup. When needed, tear off the top inch, exposing the ice. Rub three to five minutes around the sore area until it feels numb.

Rest: Resting the sore area will prevent further injury while allowing time to heal. An elbow strap may help rest the area by taking pressure off of the tendon attachment at the medial epicondyle of the elbow. A splint worn for a short period may rest the arm and reduce the pain. Problems can be avoided by taking frequent breaks as you work or play, improving overall arm muscle condition, and limiting heavy pushing, pulling or grasping.

Exercises: As healing continues different types of exercises are used. Early on, isometrics help maintain muscle strength without over stressing tissue. Isometrics are exercises where the muscles are simply tightened but no movement occurs. These type of exercises seem to allow the muscles to stay fit, but stress the soft tissues less than other types of exercise. Later, as pain lessens, more vigorous exercises are used to increase endurance and strength.

Medications: Anti-inflammatory medications such as aspirin or ibuprofen may be suggested to decrease the inflammation. An injection of cortisone in the area of the medial epicondyle may reduce the inflammation and pain.

If all else fails, surgery is available to treat golfer's elbow. The surgery is performed through a small incision on the inside of the elbow. The tendons that attach to the medial epicondyle are first released and allowed to loosen a bit. The tendons are then split to reveal the area of angiofibroblastic tendinosis in the tendon. This tissue is

removed, and any bone spurs that have formed on the medial epicondyle are removed as well. This gives a fresh bed of healthy bone for the tendon to reattach itself to. Attention must be directed to the ulnar nerve as well, to ensure that no compression on the nerve is present. If the nerve is not involved, the split in the tendon is then sutured together, as is the skin. It usually takes about 3 months for everything to reach maximum healing.

This surgery can usually be done as an outpatient. The surgery can be done using a general anesthetic (where you are put to sleep) or some type of regional anesthetic. A regional anesthetic is a type of anesthesia where the nerves going to only a portion of the body are blocked. Injection of medications similar to novocaine are used to block the nerves for several hours. This type of anesthesia, for example the axillary block, results in a numb arm.