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**Patient Information**
# MEDIAL EPICONDYLITIS

BACKGROUND: Medial epicondylitis, commonly known as medial tennis elbow or golfer's elbow, is a frequent source of elbow pain in adults. The condition is most common in people between 40 and 60 years of age, but patients of any age may be affected.

SYMPTOMS: Pain on the medial (inner) aspect of the elbow and upper forearm is the usual complaint. Onset may follow an injury, strenuous work or exercise, or it may be spontaneous without a triggering event. Pain or burning often radiates down the inner forearm, occasionally as far as the ring and small fingers, or up the arm. Symptoms may be aggravated by wrist flexion, heavy grasp, or pulling. Pain is usually less noticeable at rest.

CAUSE: A specific region in the origin of the muscle-tendon group that flexes the wrist and fingers becomes degenerate, and normal tendinous tissue is replaced by a type of irritated scar tissue. This is termed angiofibroblastic dysplasia. The change is probably due to age-related decline in tissue quality and diminished local blood supply, both of which impair the body's ability to continually repair the normal wear and tear of daily activities. The ultimate onset of symptoms may be spontaneous or may be due to a period of overuse or a specific injury. Although mild inflammation is present, epicondylitis is primarily a degenerative condition and is probably best referred to as "tendinosis" rather than "tendinitis". Similar processes account for problems in other anatomic areas, such as plantar fasciitis in the foot and some rotator cuff lesions in the shoulder.

TREATMENT: The good news: Medial epicondylitis will resolve without surgery in the vast majority of patients. A combination of exercise, medication, time, and in some cases injections or bracing eventually leads to acceptable improvement or complete resolution of symptoms. The bad news: There is no magic bullet to eliminate this condition immediately and permanently. Even with proper treatment, recovery may take six months or longer. In less than 10% of cases, persistent pain despite lengthy, appropriate treatment may warrant consideration of surgery. Surgery involves removing the degenerate portion of tendon and repairing the adjacent normal tissues together and to the adjacent bone. Post-surgical rehabilitation takes another few months. Although results are generally good, even with surgery a small number of patients will remain dissatisfied due to persistent pain.

DIFFERENTIAL DIAGNOSIS: Other causes of medial elbow pain include internal elbow joint problems (such as arthritis), ulnar nerve compression, triceps tendinitis, ligament injuries, or very rarely tumors. A physician's examination is generally sufficient to exclude these possibilities, but sometimes additional imaging studies or nerve testing may be recommended.

MEDIAL EPICONDYLITIS TREATMENT OPTIONS:

EXERCISE: Stretching, strengthening, and massage are keys to success. Exercise presumably helps by stimulating increased blood circulation and tissue regeneration in the problem area. If the patient is motivated and diligent, this often can be done independently; in some cases it is beneficial to prescribe formal physical therapy to achieve an optimal outcome. Although pain is at the elbow, the tendon involved functions at the wrist and hand, so wrist and hand stretching and strengthening is the objective. Strengthening should be of a low-force, high-repetition nature, to gently improve the tissue without inducing additional strain and injury. Massage with a large, smooth, firm object (large marble, dowel rod, ball bearing, etc.) directly over the tender point. Avoid applying pressure behind the tender area, as this can aggravate the ulnar nerve.

BRACING: A counterforce strap or brace worn around the upper forearm may provide comfort. The mechanism of effect is not certain, but a strap likely works by slightly deforming the muscle and altering the forces and direction of pull within the affected tendon. Worn properly, these devices improve symptoms in some patients. In general, straps are not a curative measure and they may not be helpful in many patients, but there is no significant potential harm in attempting this treatment adjunct.

INJECTIONS: Injection of a steroid (cortisone derivative) with local anesthetic is an option. Research suggests that this medication does not promote healing, and it may in fact prolong the disease despite suppressing symptoms. It is usually effective in providing pain reduction for one to two months on average. This may also allow more effective exercise. While the local anesthetic is in effect, the needle may be used to perforate the degenerate tendon zone, possibly stimulating tissue healing. Some types of steroid may cause permanent discoloration or dimpling of the skin at the placement site, especially with repeated injections.