

Tennis Elbow

Contributed by
Wednesday, 01 April 2009
Last Updated Wednesday, 01 April 2009

Lateral elbow pain is an extremely common presentation among sportspeople and manual workers. The most common cause is an overuse syndrome related to excessive wrist extension. This condition has traditionally been known as "tennis elbow". This term is a misnomer, as the condition is more common in non-tennis players than in tennis players. At the elbow end of the humerus- the upper arm bone, are two bony prominences called epicondyles. There is one on the inside (medial) and one on the outside of the elbow (lateral). Some of the forearm muscles that control hand and finger movement are attached at the elbow to these epicondyles. If tiny tears develop in these muscles at the point where they fix to the outer epicondyle, is called "tennis elbow". The damage that tennis elbow incurs consists of tiny tears in a part of the tendon and in muscle coverings (microtears). After the initial injury heals, or if it only heals partially, these areas often tear again, which leads to haemorrhaging and the formation of rough, granulated tissue and calcium deposits within the surrounding tissues. These degenerative changes are due to non-healing of the initial injury. Collagen, a protein leaks out from the injured areas, causing inflammation. Tendons, which attach muscles to bone, do not receive the same amount of oxygen and blood that muscles do, hence they heal more slowly. This is the reason why some cases of tennis elbow can last for years, especially if the aggravating condition persists, though in most cases the inflammation usually subsides in 6 to 12 weeks. Tennis elbow is differentiated from osteoarthritis of the elbow joint by X-ray examination. Rheumatoid disease would usually affect more than one joint and is confirmed by blood tests. Pain the elbow region can be referred from a problem in the neck or shoulder and these should be examined in order to eliminate these causes, before a diagnosis of Tennis Elbow is made. A swelling which is almost never a symptom of tennis elbow, conditions such as infection, gout or tumour must be investigated. Tennis elbow is characterized by pain over the outer side of the elbow, which may radiate down the forearm. It occurs with any activity involving repeated wrist extension (upward movement of wrist joint) against resistance. This includes sporting activities, such as tennis, squash, badminton, as well as occupational and leisure activities, such as carpentry, bricklaying, sewing and knitting. Computer use is also associated with the development of this condition. The onset of pain on the outside (lateral) of the elbow is usually gradual with tenderness felt on or below the joint's bony prominence. Movements such as gripping, lifting and carrying tend to be troublesome. It may affect any age group, but the peak incidence is between the ages of 40 and 50 years.

Symptoms of Tennis Elbow

- Recurring pain on the outside of the upper forearm just below the bend of the elbow occasionally, pain radiates down the arm towards the wrist.
- Pain caused by lifting or bending the arm or grasping even light objects such as a coffee cup or turning a door handle. The elbow pain is made worse by gripping activities such as hammering, driving screws, weightlifting, playing certain musical instruments, canoeing, digging in the garden, driving and of course, racquet sports.
- Difficulty extending the forearm fully (because of inflamed muscles, tendons and ligaments).
- Pain that typically lasts for 6 to 12 weeks; the discomfort can continue for as little as 3 weeks or as long as several years.

Treatment The most effective treatment for tennis elbow is the basic premise of resting the arm until the pain disappears. Ideally the patient should rest from aggravating activities for about two weeks to allow the inflammation to settle down. If it's not possible to rest completely, then a compression strap (elbow support) is very effective at reducing stress on the painful area, whilst allowing the user to continue with activities. Rest must be followed by massage to relief stress and tension in the muscles and exercise to strengthen the area and prevent re-injury. A progressive strengthening programme using resistance bands is the best long term approach to tennis elbow. Ice packs are a cheap and effective treatment for tennis elbow, applied for ten minutes every couple of hours. This also reduces pain and inflammation. Since tennis elbow is initially an inflammatory condition, a short course of non-steroidal anti-inflammatory drugs (NSAIDs) can help. Anti-inflammatory gel can also be helpful in relieving the pain. This can be used while the injury is being rested, this can be followed up with exercise and massage to speed the healing. For stubborn cases of tennis elbow, an injection of corticosteroid can be advised, as it dramatically reduces inflammation, but they cannot be used long term because of potentially damaging side effects. In some cases, conservative treatment can prove ineffective. This usually occurs in very long standing cases. In these cases the inflammatory nature of the condition gives way to a chronic degeneration of the tendons of the extensor muscles. This degeneration can be further exacerbated by the long term use of NSAIDs and corticosteroid injections. For this reason, these should be avoided in longstanding cases. In longstanding, chronic degenerative cases, surgery by an orthopaedic surgeon may be considered. This form of treatment is usually rare. One procedure is for the tendon to be cut loose from the epicondyle, which eliminates stress on the tendon, but renders the muscle useless. Another surgical technique involves removing granulated tissue in the tendon and repairing

tears. Prevention of Tennis Elbow Tennis elbow is caused by gripping activities and gripping either too hard or for too long and can bring on the pain. Ensuring that the item being gripped is the correct size for the hand. Discontinue or modify the action that is causing the pain on the elbow joint. If there is a need to continue, warming up for 10 minutes before undertaking activity and apply ice afterwards. Also to take more frequent breaks

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