

Tennis Elbow

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What is tennis elbow?

Tennis elbow is more correctly termed Lateral Epicondylitis or Extensor Tendinosis. The actual problems related to tennis elbow are not a true inflammation of the tendon but more a degeneration of one of the muscles that inserts on the outer part of the elbow. This muscle is primarily involved in stabilising the wrist during gripping activities but it is also involved in extending the wrist.

In this condition, the tendon itself has a poor blood supply and through overuse the tendon tends to degenerate. As it does, it loses strength and develops pain and often swelling in the region of the outer aspect of the elbow.

What are the symptoms?

Almost invariably, people develop pain over the outer aspect of their elbow, sometimes this pain will radiate down into the muscles of the forearm and occasionally radiate up the arm and even up towards the shoulder. The pain in mild cases will only come after extensive activity such as playing tennis or after a long days work with manual labour. With more severe cases, the pain will develop even with minor activities but will tend to settle down again with rest. In severe cases, the pain is there all the time and often keeps the person awake at nighttime with a deep bony type pain.

Classically, the pain is brought on by lifting things backhanded and the pain may be precipitated even by lifting things such as a kettle or cup of tea or gripping a pen. The pain is typically not present when things are picked up with the palm of the hand to the sky.

What causes tennis elbow?

Whilst tennis elbow is the name given to this condition, most cases occur from activities unrelated to tennis. In tennis, the backhanded hitting is the cause of pain with shockwaves from an inappropriate backhand swing being transmitted up the muscle into the tendon. More commonly, this condition occurs as a work-related injury and may also occur with golf. In occupations such as labouring jobs, bricklayers, typists and keyboard operators, the cause of this is almost certainly repetitive overuse of the muscle associated with a continuous straining that does not allow time for healing.

Are there any risks of long-term tennis elbow?

Certainly, there are cases of tennis elbow that will result in a degenerative tear of the muscle where it joins onto the bone. This tear may occur after a lifting injury or fall but may also occur over many months of continued inflammation.

Are any tests needed?

In general, no tests are required as this diagnosis is a clinical one primarily. There are other causes of pain in this region and an accurate diagnosis needs to be made by an experienced professional.

When a tear of the tendon is suspected, then an ultrasound should be performed to exclude this. X-rays are very rarely indicated unless other forms of bony pathology are considered.

What can I do to treat this?

It seems that multiple treatments have been tried for this condition and no specific treatment has ever been shown to be consistently helpful. Basic treatment can be commenced without specific referral to physiotherapists or doctors and this basically rests with the concept of treating an acute injury. Certainly if the pain has been reasonably recent in its development then relative rest from causes associated with the condition and ice and stretching of the muscle are often all that is required to settle the condition down.

Unfortunately, many people develop pain that is progressive and certainly if this condition has been present for more than six weeks then more specific treatment is required. In the first instance referral to a physiotherapist is the main stay of treatment and this will involve a combination of stretching of the associated muscle as well as one form of massage or another. This massage may include transverse friction massage or deep myofascial release and certainly this form of treatment may well be adequate. Dry needling or acupuncture into tender areas in the affected muscle may also be effective.

There is very little evidence to suggest that the use of anti-inflammatory medications produce any significant medium or long-term benefits. They may be helpful in the short-term to reduce pain but will almost never cure the problem.

Once the pain has started to settle then one of the most important strategies is to prevent recurrence of the pain. This is performed through a combined stretching program and muscle-strengthening program which aims to strengthen the muscle so that it is not overloaded in the future.

What specific treatments are available?

In the cases where the general therapies above failed to improve their pain, then specific therapies need to be utilised.

Steroid injection or cortisone injections are often used to try and reduce the pain and swelling in this condition. Unfortunately, the long-term outcome of this kind of therapy is often not as good as one would expect. The benefit of this therapy is that we will often achieve very good short-term relief of pain and return of normal function. This can mean that a week after injection, people are back actively playing sport or back at work. Unfortunately, the pain will often slowly return after over the following two to three months and nothing has been achieved in the long-term. If injections are combined with

physiotherapy as discussed above then it is a very good way of achieving a window of pain free opportunity so that strengthening programs can take effect.

Steroid Iontophoresis is a method of applying cortisone through the skin without injection. This is done through a machine that emits a low strength electric current and the molecules of cortisone travel through the skin deep into the muscle. This can be very effective and avoids any of the potential discomforts of a cortisone injection. The benefit is by no means as good as the injection. This treatment can, though, be applied to people who are phobic of the use of needles.

Extracorporeal shockwave therapy is a reasonably new form of therapy for this condition. The treatment of this condition with shockwaves emitted by an extracorporeal shockwave machine or a radial shockwave machine promotes an improvement in blood flow and reduction in pain. It appears that somewhere between 75 and 85% of people will get complete or very good results of pain within a six to eight week period following treatment. The improvement is generally well sustained for one year at least following treatment. This certainly appears to be a very good form of treatment prior to progressing to surgical treatment for this.

Surgery is sometimes required for the treatment of tennis elbow and it is certainly indicated where there is a tear of the muscle itself. Surgery would certainly not be the first choice and all of the above treatments would probably be required before surgery is contemplated. The operation results in very good relief of pain and good long-term results. Unfortunately, the surgery does result in a significant period of disability such that the person is unable to work often from six weeks through to three months following surgery.

What is the long-term outcome?

Untreated tennis elbow will often resolve by itself if given sufficient time. Unfortunately people find that a period of rest is followed by improvement but a return to work is followed by worsening. It is certainly not satisfactory to put off working or sport for a two-year period whilst you wait for this to settle.

With basic forms of treatment including physiotherapy and acupuncture, a large number of people will gain complete relief and be able to return to work and sport. Of the resistant cases, corticosteroid injections will improve but probably not cure whilst radial shockwave therapy and surgery are reserved for people who have failed previous treatments.

The important issue in the management of tennis elbow is the fact that the cause of the injury needs to be removed. The strengthening program in the physiotherapy rehabilitation program also then needs to be extended to the cause and this almost certainly will require an assessment of the person's tennis technique, workplace techniques or other factors that may have triggered it.