

The Complete Guide to Tennis Elbow

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Hi, my name is Dr. Ranjan Vhadra.

I work in the area of orthopaedics, a branch of surgery concerned with the musculoskeletal system. If you've ever broken a bone or needed a hip replaced, it was an orthopaedic surgeon who operated on you.

In this guide I'd like to explain how you can get your tennis elbow better in a few easy steps. I am also going to explain what tennis elbow is, why some people suffer from it when others don't and what your treatment options are. I will also explain how my new device **Tenease** can help you manage the pain of the condition.



A little about me

I am a practicing consultant orthopedic surgeon, an International member of the American Academy of Orthopedic Surgeons and I trained as a doctor at St. Bartholomew's Medical school in London. My training in surgery took place at many prestigious hospitals around Britain and the USA. I also trained at the Hospital for Special Surgery in

New York and have the privilege of teaching and lecturing orthopaedic surgeons around the world.

As a consultant surgeon I have a busy practice seeing and treating patients with orthopaedic problems. Many of the patients I have referred to me require specialist tennis elbow surgery so I know the pain and discomfort that the condition can cause.



What is Tennis Elbow?

Tennis elbow is a painful condition that often occurs as a result of strenuous overuse of the muscles and tendons of the forearm and around the elbow joint. As its name suggests, tennis elbow can sometimes be caused by playing tennis, but it can also occur as a result of a number of other physical activities. It is a common condition which affects at least 2 – 3% of the population every year. This means that in the United Kingdom there are a million new cases of tennis elbow every year. It affects people from all walks of life but manual workers are more prone to suffering from it and it can affect either arm irrespective of whether you are right or left-handed.

The understanding of tennis elbow has improved over recent years.

It was thought to be an inflammatory condition with the tendon becoming inflamed. This is the tendon which attaches the forearm muscles to the bony prominence on the outside of the elbow. The bony lump that you can feel on the outside of the elbow is called the lateral epicondyle which is why Tennis Elbow is referred to as *lateral epicondylitis* in medical circles.

Because it was thought to be an inflammatory condition the classical treatment has been a corticosteroid injection into the tendon. Recent

research shows that it is not due to inflammation therefore a steroid injection is the wrong thing to do. There is damage to the tendon called micro trauma. In patients who are susceptible to tennis elbow this micro trauma doesn't heal which is probably due to the change in the blood supply to the tendon.

Patients who get tennis elbow have a tendon that is unable to heal itself due to this restricted blood supply and therefore they get a chronic condition which is tennis elbow. Most patients with tennis elbow find that with some rest their symptoms improve but as soon as they use their arm the pain returns.

In 90% of cases the tennis elbow gets better by itself but can take from 6 months to a year. Elbow bracing and steroid injections can help the condition but scientific studies show that the pain returns within 6 weeks. The injections also carry a risk of side effects.

What treatments are available?

There are no ideal treatments for tennis elbow. In the last review in the British Medical Journal (23rd January 2010) the recommended treatments are:

- Information and exercise leaflet
- Advice on avoiding aggravating factors.
- Basic exercises and stretches.
- Pain relieving drugs
- Corticosteroid injection.

If we look at each of these treatments in turn, you'll see why until now, there's been no real treatment for the condition.



Corticosteroid Injections

Steroid injections have been a very popular treatment for tennis elbow. This was due to the belief that the condition is caused by inflammation of the elbow. However, recent research shows that as tennis elbow is not caused by inflammation but a lack of it, the use of injections as a treatment is not ideal.

The recent evidence also suggests that these injections provide a short term benefit but not a long lasting effect. They can also have side effects including depigmentation (colour change of the skin) and atrophy of the injection site (indentation of the skin).

Tendons can also be weakened by the injections and tendon ruptures have also been reported.

Strapping and Banding

There are some advantages to strapping up the elbow. Rest is an important part of the recovery process and immobilising the elbow with a strap is certainly an advantage. When performing any activities that put the elbow at risk, a strap will often help avoid re-injury.

The disadvantage with strapping is that it doesn't assist the recovery of the elbow tendon and it doesn't relieve the pain. There is very little evidence to show that strapping or braces improve tennis elbow.



Anti Inflammatory drugs

This is the usual first line of treatment for tennis elbow.

All pain relieving (analgesic) treatments work by blocking the pain signal to the brain. Drugs such as paracetamol, ibuprofen and morphine do this chemically. They block chemical mediators that allow the pain signal to pass from nerve to nerve on its way to the brain. These drugs are not specific to the site of injury. The body is bathed by the drugs and only a very small portion of the pain killing drug that you take actually works on the

damaged tissue. On the whole these drugs are very safe but they do have side effects in some patients.

Anti inflammatory drugs such as ibuprofen (neurofen) and aspirin can cause gastritis and stomach ulcers. Very rarely they can cause life threatening bleeding if used for more than a few weeks. In comparison Tenease is perfectly safe and can be used for as long as is needed.

All these drugs work to take the pain of tennis elbow away but do not speed up the recovery of the condition.



TENS machines

Another option for pain relief is a Transcutaneous Electrical Nerve Stimulator (TENS machine). TENS machines deliver small electrical pulses to the body via electrodes placed on the skin. This is thought by some to help ease pain.

TENS machines are useful in back pain and for women in childbirth but not so practical for tennis elbow.

It is difficult to apply the TENS electrodes to the elbow for it to be effective. A study published in the Journal of Pain showed that the vibration therapy that Tenease uses is far superior to TENS in its pain relief for the condition.



Physiotherapy

A physiotherapist will initially aim to reduce the pain and potential inflammation if you are in an acute episode.

Deep tissue and friction massage techniques can also be used to break down underlying adhesions and improve the local circulation.

Once the acute stage has settled the aim is to restore function of the involved muscles by a graded exercise plan targeting the flexibility, strength, and endurance of the wrist extensor muscles. Your physiotherapist will advise you on this.

The new research showing tennis elbow to be a lack of inflammation however is starting to move us in a different direction. Treatment of inflammation makes less sense if there cannot be shown to be any. Stretching and progressive loading of the extensor muscle in an eccentric manner is the current best practice. Eccentric in this case means the exercise is done in a manner which allows the muscle to lengthen at the same time. A bit like having a dumbbell in your hand curled up to your shoulder and letting it down repeatedly as the exercise.

The disadvantages of physiotherapy are that it is expensive, time consuming and although it helps to recover the movement of the arm, it's a very lengthy process. Patients often require more immediate help than a weekly trip to a physiotherapist for treatment.



Conclusion

Conventional treatments for tennis elbow are either painful, costly, carry side effects, or are ineffective. Many do not address the real cause of the condition which is a lack of inflammation and micro trauma to the tendon itself. Until now, nobody has solved the problem which affects nearly one million people a year in the UK alone.

How does Tenease work?

Tenease applies precise frequencies of pulsed vibration to the point of pain. By using a microprocessor to control the pulse unit, it is possible to vary both the frequency and amplitude of the pulse. This allows different settings to be used.

Repeated pressing of the activation button cycles through the pulse settings.

- 1 Low frequency
- 2 Mid range frequency
- 3 High frequency
- 4 Standard repeating pulse
- 5 Fast pulse alternating with 1,2 & 3
- 6 Maximum power pulse
- 7 Short pulse, fast pulse, repeating
- 8 Slow pulse
- 9 Fast pulse
- 10 Long pulse, alternating

How to use your Tenease:

Day 1 & 2

Start with setting one, a low frequency non-pulsed setting. Use this three times a day for 10 minutes each time to start.

Day 3 - 5

Increase the mode to 2 or 3 if necessary, keeping the same frequency.

Day 7+

Use each of the modes to see which provides the greatest level of pain relief. You can reduce usage frequency to twice a day using modes 4 and upwards.

Ongoing

Use modes 8, 9 and 10 for occasional use after the 4th week.

Buy Tenease Now

If you'd like to try Tenease you can do so with a 14 day guarantee to refund all your money if not completely satisfied so you can try it without any risk. As an added benefit, most people can order without the VAT by simply ticking in the box provided.

If you'd like to take up this offer [click here](#) to purchase your device

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