

TENNIS ELBOW: Prevention and Treatment

If you have tennis elbow you can experience pain when performing gripping tasks or resisted wrist/finger extension. Pain can also be present when your forearm muscles are stretched. There is probably tenderness directly over the lateral epicondyle, the bony bump on the outside of the elbow, and tender points (trigger points) in the forearm muscles. In some cases you may also experience neck stiffness and tenderness, and possibly also signs of nerve irritation like numbness and tingling. Most elbow movements are pain-free despite the surrounding area being painful.

WHO IS AFFECTED?

You don't have to be a tennis player to suffer from tennis elbow. It is caused by the repetitive movements and the gripping actions common in tennis hence the term 'tennis' elbow. However, it may also occur in other activities requiring repetitive gripping actions. Tennis elbow can therefore stem from daily activities such as using scissors, cutting meat, carrying grocery bags, gardening, manual work that involves repetitive turning or lifting of the wrist, such as plumbing, or bricklaying, and typing.

ACUTE VS CHRONIC

Acute tennis elbow, also known as lateral epicondylitis, is an injury to structures involved in extending (straightening) the wrist and fingers at the site where the forearm muscles attach to the bone via the extensor tendon. It occurs when more force is applied to that area than the normal healthy tissue can handle.

For example:

- Unaccustomed hand use such as starting the tennis season, or increasing the frequency or amount of time playing tennis too quickly. Sometimes just a weekend of home DIY may trigger it
- Excessive gripping or wringing activities, possibly a new racket or different grip size
- Poor forearm muscle strength or tight muscles
- Poor technique (this may be a poor tennis shot).

Chronic (ie. longer term) tennis elbow is associated with degenerative changes in the tendon. While a sudden acute flare up of tennis elbow may have some inflammation or swelling, chronic tennis elbow generally doesn't involve inflammation and is instead associated with changes in the nerves and blood supply to the tendon.

Unfortunately, rest as a treatment is rarely helpful. If left untreated, tennis elbow can last anywhere from 6 months to 2 years and can have a serious affect on your sport, daily activities and work. Physical therapy is effective both in acute and chronic tennis elbow, and there are several things you can do to help in recovery and prevention.

TREATMENT

Tennis elbow should be diagnosed by a physical therapist or doctor. A history is taken and tests performed. Referred pain from the neck and reduced nerve mobility can mimic tennis elbow. The physical therapist must check your neck and clear it from any involvement in your elbow

pain. An ultrasound scan or MRI are the best tests to identify tendon damage, but are often not necessary.

Physical or manual therapy treatments that can help include:

- Massage therapy to relieve pain and stretch tight muscles and structures
- Manual therapy can mobilise joints in the elbow and around the neck to ensure normal function
- Taping and braces are beneficial in reducing pain in the elbow and supporting the muscles when you return to sport
- Ice and ultrasound therapy may be used to reduce inflammation.
- Dry needling can also be effective for pain relief, releasing trigger points in the muscle and promoting tissue healing
- Exercise therapy should be prescribed to strengthen and balance the muscles of the forearm. While stretches help to lengthen tight muscles.

Other treatment options may include injections, which should only be considered if the exercises have not helped. Surgery can be carried out under local injection (subcutaneous tenotomy) with a 95% success rate and no reduction in grip strength.

You need to try and prevent tennis elbow from occurring or recurring, which unfortunately it has a tendency to do, which means finding out what caused the injury and addressing these issues with the help of your therapist.

Try the following modifications to the equipment causing your 'tennis' elbow:

- Use a lighter racket or one with a more flexible shaft
- Increase the racket grip size
- Use string vibration dampers
- Reduce string tension
- Increase the racket head size
- Play with newer balls
- Don't play with wet balls
- Use softer grip material.



These changes refer to tennis but some changes are relevant to tools/work equipment too. Always increase your work load or tennis time gradually, allowing your muscles time to adapt to the new demand. Conditioning your muscles and arm with specific exercises will go a long way to playing pain-free tennis!

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TENNIS ELBOW

YOUR REHABILITATION PROGRAMME

This exercise programme has specific exercises to strengthen muscles around your elbow as well as improve muscle balance and flexibility in your forearm. In order to achieve proper rehabilitation of your injury it is important to ensure the exercises are performed with good technique. Poor practice may place potential strain on your injury.

GUIDANCE FOR STRETCHING EXERCISES

Hold all the stretches for 20 seconds each and repeat them five times.

PROGRESSION SPEED

Your therapist will advise you on the speed you should progress on the strengthening/movement control programme. Progression is not just about being able to do the exercise but to do it correctly, with appropriate control. Remember poor practice leads to poor performance and potential strain on your injury. If at any time you feel pain or discomfort stop the exercises and consult your therapist.



BALL SQUEEZE

Squeeze a small ball in your hand. Use this to strengthen your thumb and fingers. You can also use putty, a small towel, or other small squeezable items.

SETS	REPS
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 **Video:**
<http://youtu.be/EMx8Ufccvik>



RADIAL DEVIATION BAND

Hold an exercise band, and deviate your wrist to the side of your thumb, to create resistance in the band. This is a strengthening exercise for the wrist, forearm and elbow.

SETS	REPS
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 **Video:**
<http://youtu.be/KNFV34MzMug>



ELBOW FLEXION BAND

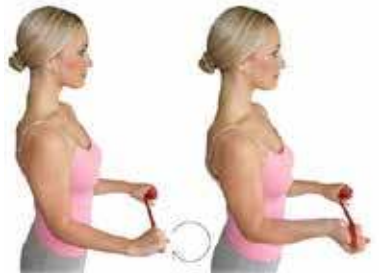
Stand on one end of an exercise band, and hold the other end, then bend your elbow. When you reach your end of range, let your elbow return to the start position in a controlled manner. This is a strengthening exercise for the upper arm muscle (biceps).

SETS	REPS
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 **Video:**
<http://youtu.be/gCUCvmHOaLO>

ELBOW FLEXION PRONATION BAND

Bend your arm to 90 degrees, and holding a band in your other hand, rotate your forearm to feel tension in the band. You should feel resistance from the elastic as you rotate your arm from thumb inwards to thumb out position. Keep your elbow tucked into your side at all times. This will strengthen the muscles around the elbow.



SETS	REPS
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 **Video:**
<http://youtu.be/w8AgmGRfcEA>

FOREARM EXTENSOR STRETCH

Hold your arm out in front of you, straighten it, rotate your arm inwards (thumb down) and bend your wrist back. Don't shrug your shoulder. Hold this position to create a stretch. This exercise stretches the forearm Extensor muscles, and can help with tennis elbow pain and other repetitive strain injuries.



SETS	REPS
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 **Video:**
<http://youtu.be/gRmAdcJvGJO>

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