

PHYSIO TIPS

IN NOVEMBER

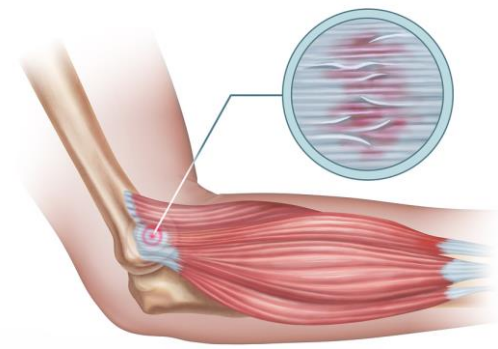
TENNIS ELBOW AND TENDONS



Physio Tips is a monthly newsletter aimed at educating the public regarding the latest evidence in injury management, without all the medical jargon. We will keep it simple and concise, but full of knowledge gems in order to empower and equip you.

REACH OUT TO US

Tennis elbow, or lateral epicondylitis, affects up to 3% of the population and can be a very frustrating condition for sporting and non-sporting people alike. Tennis elbow is characterised by tendinopathy of the wrist extensor tendons where they originate on the outside of the elbow. Therefore, although this month's newsletter is focused on the elbow, many of the principles discussed can be applied to other tendinopathies as well (including achilles, patellar and gluteal). Tendinopathies can take a long time to recover, but if approached properly, improvements will occur within a few weeks.



What is tendinopathy?

A tendon is a thick band that connects muscles to bones. Tendinopathy develops when a tendon's collagen structure degenerates as a result of overuse. People often use the term tendinitis – but this term implies an inflammatory process, and research has shown that inflammation does not play a big role in tendinopathy. Pathological structural changes include collagen disarray which weakens the tendon. This occurs when there is too much stress placed on the tendon, without enough time to recover or positively adapt to the stress.

Risk factors for developing tennis elbow

- Physically active people, of increasing age - especially weekend warriors who move from under-load to over-load
- Repetitive overload of the elbow in one's occupation (mouse use, car mechanics, gardening, knitting)
- Estrogen is tendon protective, so men & postmenopausal women are more at risk
- Quinolone antibiotics can weaken tendons for up to 6 months
- Poor sleep habits
- Other medical conditions: hypertension, diabetes, chronic steroid use

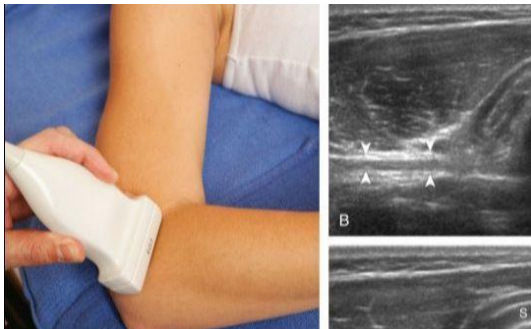


What are the symptoms?

- Pain in the lateral elbow during activities that require contraction of the forearm muscles
- Weak and painful grip
- Pain can radiate along the forearm
- Aggravated by resisted wrist and finger extension
- Traightening the elbow may be painful
- There can be associated symptoms in the neck and shoulders due to altered mechanics

How long does it take to recover?

Tennis elbow can take anything from 6 weeks to several years to completely resolve. Usually, the sooner it is addressed (in the first 30 days preferably), the better the outcomes. The reason being that after more than a month, many secondary problems start developing - like nerve entrapment, weakness, stiffness - and the area becomes more and more sensitive as pain persists. This hypersensitivity can later maintain painful sensations even when the tendon has healed.

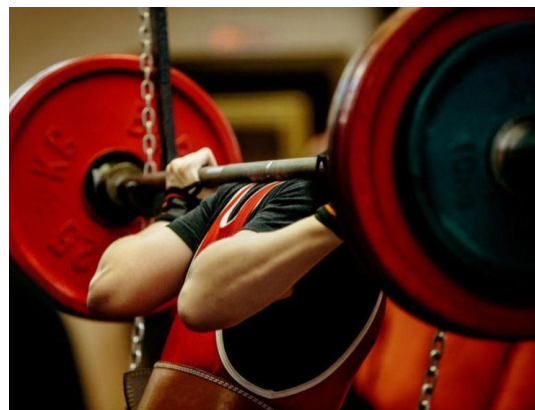


How is tennis elbow diagnosed?

Clinical assessment is usually sufficient to diagnose tennis elbow. Ultrasound can however be useful to rule out tendinopathy if other causes might be suspected. However, ultrasound findings rarely correlate with symptoms or prognosis. Imaging should therefore never dictate what treatment is offered - it should always be based on clinical findings.

Causes of tendon overload

- A too sudden increase in training/load on the tendon
- Poor technique with high load tasks
- Lack of variety in movements or repetitive movement
- Muscle weakness or tightness affecting the load transmitted to the tendon
- Inadequate recovery time after increases in load



Now let's have a look at what optimal loading looks like, and what can be done to restore and maintain the health of our tendons



Will complete rest help?

Unlike other injuries which might improve with rest, tendons will not – they need to be loaded to stimulate them to restore their strong properties. So tendons have to be loaded – the difficult part is to determine how much load is sufficient for improvement, without it being too much, which will further aggravate the tendon. In the reactive phase, reducing load is necessary, and sometimes this might imply a short period of rest. Gradual loading should however start as soon as possible.

Optimal loading

It can be hard to find the optimal load for a tendon as one often does not feel pain during exercise, but rather afterwards or the following morning. For this reason it is very important to monitor symptoms for 24 hours instead of pushing through and paying for it afterwards. This implies a trial and error period to determine how much load is optimal for the tendon to respond positively. This will vary from person to person and depends on how acutely irritated the tendon is. Your physiotherapist can guide you with this.



Interventions that don't work

- **Early surgery:** surgery is only considered when 6 months of conservative treatment has failed. This does not mean 6 months of active physio, but rather 6 months of applying management principles.
- **Cortisone injections:** should be avoided unless there is a need for quick pain management (e.g. to compete in sport), as it can weaken the tendon. Although it provides short term pain relief, it has been shown to be associated with poorer outcomes in the long term
- **Platelet rich plasma and autologous blood injections; shockwave therapy:** there is a lack of evidence to support long term benefits

Interventions that may be useful

- **Counterforce elbow strap:** Always test your grip before applying the strap, and after - if there is a reduction in pain this means the strap will help, especially in cases where reducing load is not possible (e.g. occupational injuries).
- **Wrist brace:** wearing a wrist brace in the acute painful phase may be useful.
- **NSAIDs:** Ipubrufen has been shown to be effective, not as an anti-inflammatory, but rather because it has an effect on the protein structures of the tendon. Other anti-inflammatories should be avoided.
- **Manual therapy:** may help to reduce pain and muscle tightness in order to allow for loading to commence



Treatments that do work

The research seems to suggest that supervised training for tennis elbow produces better outcomes than self administered/home based training. The following strategies have good evidence to support it:

- Active rest (load management)
- Progressively loaded exercise program
- Strengthening forearm and shoulder muscles
- Activity adaptations
- Lifestyle changes

EXERCISES FOR TENNIS ELBOW

COMPLETE REST DOES NOT HELP, AND NEITHER DOES JUST PUSHING THROUGH THE PAIN

WATCH THIS SPACE FOR PHYSIO TIPS IN DECEMBER

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