

# Keele Critically Appraised Topic (CAT Form)

## Accessible format August 2023



## Clinical Question

In adults with tennis elbow (lateral elbow pain), is an exercise and load management education programme more effective than usual care in reducing pain and improving function?

## Clinical bottom line

No research was found to answer this specific question.

Although we found no evidence on an education programme, Physiotherapy should continue with education in relation to tendinopathy, providing re-assurance that the majority of lateral elbow tendinopathy will resolve within a year with no intervention (BMJ Best practice 2022). When patients are referred to physiotherapy then a tendon loading program of concentric or eccentric exercise should provide short and long-term improvement in pain and function (Peterson et al 2014)

## Why is this important?

Lateral elbow tendinopathy (LET) also known as, tennis elbow, is the most common musculoskeletal condition of the elbow causing significant pain and disability. Its prevalence ranges from 1-3% of the general population and peak prevalence is between 35 and 45 years old (Peterson et al 2014). Management of LET in primary care is variable and inconsistent and therefore there is no universal definition of what usual care consists of. Better understanding of the aetiology suggests inflammation plays a smaller part and that the likely cause is tendinopathy. Clinicians want to use evidence-based practice to guide treatment and optimise resources. Recent evidence shows that a tendon loading program with education for the management of other tendinopathies has good outcomes for patients (Mellor et al 2018) and we wanted to explore if there was any evidence to show if this combined approach was beneficial for LET.

## Search timeframe (e.g. 2013-2013)

2015 – 2020

Search criteria

|  |  |  |
| --- | --- | --- |
| **Population Intervention Comparison Outcomes (PICO) themes** | **Description** | **Search terms** |
| Population and Setting  E.g. adults with OA, primary care | Adults  Over age 18  Tennis elbow, (lateral epicondylitis) | Pain insertion or common extensor origin, lateral elbow pain, repetitive strain injury, Degenerative, Chronic  tendonitis, tendinosis |
| Intervention or Exposure  (i.e. what is being tested)  e.g. manual therapy | Tendon loading programme | Exercise regime by physiotherapist which includes tendon loading, Isometric, concentric and eccentric exercises/ loading  Progressive tendon loading  Graded loaded program |
| Comparison, if any  e.g. usual care, leaflet | Usual care | Stretches Orthotics/ epiclasp  Strengthening, Advice, Friction massage, Electrotherapy, Ultrasound  Acupuncture, Dry needling |
| Outcomes of interest  e.g. Visual analogue scale, Range of motion | Function, pain | Improve function  Reduced pain |
| Types of studies  e.g. Randomised Controlled Trails, Systematic reviews |  | RCT’s, SR’s, Meta-analysis |

## Databases searched

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, The Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites. Joanna Briggs Institute, Web of science, Sports discus and Pub med

## Date of search

## Results of the search: include the number in each box

# Summary

There is no evidence that examines whether an exercise and load management education programme is more effective than usual care in management of LET.

A previous CAT question has shown that eccentric exercises is just as effective as concentric exercise in the management of LET and therefore physiotherapists should remain confident in applying this to practice.

# Implications for practice

LET is a difficult condition to treat and manage. A large proportion of patients improve within a year with wait and see approach. However, some patients struggle with pain and want to get better quickly due to its impact on their quality of life and function. The evidence on the use of steroid injections beyond 6 weeks of initial symptom presentation has shown it can cause more harm than good in the long term as seen in previous CAT questions

There appears to be a gap in the research which examines the evidence of applying a tendon loaded exercise programme alongside patient education, which informs the patient about the condition, how to manage it and the principles of the treatment approach. Further robust research is needed to understand if educating patients in the pathology and the principles of a progressive tendon loading approach is more effective at reducing pain and improving function, in addition to being cost effective than an advice and wait and see approach.

Members of the CAT group and other clinicians with an interest in the management of tendinopathy will develop material for clinicians and patients, based on clinical consensus, to reinforce the importance of tendon loading during rehabilitation.

# What would you post on X (previously Twitter)?

There is no research that looks at exercise and load management education programme for the management of lateral elbow tendinopathy (Tennis elbow). Research is needed to understand the role of education for this group of patients to see if improving their understanding of tendinopathy and the principles of load management leads to an improvement of pain and function and whether this is a cost effective approach for the management of this condition.

# References

BMJ Best Practice (2022) Epicondylitis. Available at: [BMJ Best Practice (2022) Epicondylitis](https://bestpractice.bmj.com/topics/en-gb/978) (Accessed 18.5.22)

Mellor R, Bennell, K, Grimaldi A, Nicolson P, Kasza J, Hodge P, Wajswelner H, Vicenzino B (2018) Education plus exercise versus corticosteroid injection use versus a wait and see approach on global outcomes and pain from gluteal tendinopathy: prospective, single blinded, randomised clinical trial. British Medical Journal; :361:k1662

Peterson M, Butler S, Eriksson M, Syardsuss K (2014). A randomised controlled trial of eccentric vs. concentric graded exercises in chronic tennis elbow (lateral elbow tendinopathy). Clinical Rehabilitation Sep:28 (9): 862-72

Please tick the box that best reflects your clinical bottom line and include the picture on page 1

| **CAT image** | **Evidence quality** | **Checkbox** |
| --- | --- | --- |
| This is a green cat with a happy face | Good quality evidence to support use…. |  |
| This is an orange cat with an indifferent face | Insufficient or poor quality evidence OR substantial harms suggest intervention used with caution after discussion with patient… |  |
| This is a red cat with an unhappy face | No good quality evidence, do not use until further research is conducted OR  Good quality evidence to indicate that harms outweigh the benefits…. |  |

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