

Clinical Course and Risk Factors for Lateral Epicondylalgia

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REVIEW

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Introduction

Lateral epicondylalgia, more commonly known as tennis elbow, is the most common chronic musculoskeletal pain condition affecting the elbow, causing significant pain, disability and lost productivity. Despite from many years of research investigating treatments and the underlying mechanisms of LE, it has been a challenging condition for physiotherapy clinicians and researchers aswell.

Tennis elbow is the natural history of LE was between 6 months and 2 years, which has since been widely cited. In contrast, recent reports have shown that symptoms may persist for many years and recurrence is common. Over 50per cent of patients attending general practice for their elbow pain report not being recovered at 12 months. Follow-up of participants in a clinical trial of non-surgical treatments for LE identified that 20per cent of respondents (27/134) reported ongoing pain after 3 to 5 years regardless of the treatment received, and that those with high baseline severity were 5.5 times more likely to still have symptoms of LE. Hence, LE isn't self-restricting and is related with continuous torment and handicap in a significant extent of victims¹.

Workers in manual occupations involving repetitive arm and wrist movements are at increased risk of LE and are more resistant to treatment, with a poorer prognosis. Office work, older age, being female, previous tobacco use and concurrent rotator cuff pathology are also significantly associated with LE.

One plausible reason for persistent pain in LE is the presence of sensitisation of the nervous system, given the reduced thresholds to nociceptive withdrawal and greater temporal summation. It has previously been shown that

people with LE exhibit widespread hyperalgesia, which is associated with high pain scores, decreased function and longer symptom duration.

Diagnosis and Assessment

LE is a diagnosis based on clinical history and actual assessment, with demonstrative imaging best utilized when a differential determination is reasonable. LE is commonly analyzed by the presence of agony over the parallel humeral epicondyle that might transmit distally into the lower arm. This aggravation is disturbed by palpation, grasping and opposed wrist or potentially second or third finger expansion².

While LE is thought to result from an overload of the forearm extensor muscles, the pain may have an insidious onset with no specific causal activity.

To assist prognosis, assessment of pain and disability should be performed at baseline, as there is some evidence to show that people who present with higher pain and disability are more likely to have ongoing pain at 12 months. The Patient Rated Tennis Elbow Evaluation is a condition-specific questionnaire that includes both pain and function subscales, which are aggregated to give one overall score of 0 (no pain or disability) to 100 (worst possible pain and disability)³. A minimum change of 11 points or 37per cent of the baseline score is considered to be clinically important. The most common functional limitation in LE is pain on gripping, and this can be measured as pain-free grip strength, which is a reliable and valid measure that is more sensitive to change than maximal grip strength. With the patient lying supine, the elbow in relaxed extension and the forearm pronated, the patient is asked to grip a dynamometer until the first onset of pain, and the mean of three tests at 1-minute intervals is then calculated².

Elbow, wrist, and forearm range of motion, stress testing of the medial and lateral collateral elbow ligaments, and specific tests for elbow instability should be assessed to aid the differential diagnosis of intra-articular and ligamentous pathology. The clinician should know that there might be co-pathologies and a cross-over in side effects, especially in patients giving indications of focal sensitisation, which might be tactile in nature, or related with neuropathic sores, for example, back interosseous nerve capture as it passes between the two tops of the supinator muscle. In

patients with back interosseous nerve capture, they might report torment over the dorsal part of the lower arm and show muscle shortcoming of the finger and thumb extensors without sensory loss⁴. Evaluation of the cervical and thoracic spine and neurodynamic testing of the radial nerve are also helpful in identifying spinal contribution to pain⁴. While it is currently unclear as to what impact the presence of cervical and thoracic impairments have on the condition, exploratory research indicates that neck pain is more common in people with LE compared with their healthy counterparts. Furthermore, people with LE who also report shoulder or neck pain have a poorer prognosis in both the short term and long term, and impairment at C4 to C5 spinal levels has been identified on manual examination in people with localised symptoms of LE. The role of cervical and thoracic spine impairments in the prognosis of LE requires validation; however, in light of these exploratory studies, the clinician should include cervical and thoracic spine assessment in their examination of the patient presenting with LE⁵.

Imaging studies, like ultrasound (US) and attractive reverberation imaging, have high responsiveness yet lower particularity in recognizing LE. Structural abnormalities identified on imaging tend to be consistent across all tendinopathies, and include focal hypoechoic regions, tendon thickening, neovascularisation, disruption of fibrils and intra substance tears. Importantly, structural changes on imaging are present in approximately 50per cent of healthy, asymptomatic age-matched and gender-matched individuals, indicating that caution must be applied in interpreting the relevance of such findings. Notwithstanding this, negative image findings can be used to rule out LE as a diagnosis and assist with alternative diagnoses such as instability and/or joint pathology. A notable differential diagnosis is the presence of a large tear (≥ 6 mm) within the tendon or lateral collateral ligament, which has been linked to failed conservative treatment⁶.

Management of Lateral Epicondylalgia

Physical interventions for LE have been broadly explored, with the distribution of in excess of 200 clinical trials and several systematic reviews. Conservative management is recommended as the first line of treatment for LE. In order to facilitate summary and interpretation of this volume of literature, the present review has focused on summarising the discoveries for moderate mediations that have been contrasted with a control, fake treatment or different mediations in randomized, controlled preliminaries (RCTs) of sound strategic quality². It has dominantly zeroed in on active recuperations and has not completely explored other clinical mediations, including infusion treatments.

A prevailing notion in tendinopathy management is to regard exercise and load management^{59, 60} as the key component, with any remaining actual modalities being assistants to speed the recovery or enhance the effects of exercise and outcomes. While recognizing that various results and follow-up times are accounted for in the writing, this survey has zeroed in on present moment follow-up information, wherein the essential point of adjunctive treatment is to speed up recovery. Outcomes of pain and global rating of success are presented in terms of point estimates of effect, whereas other outcomes are qualitatively reported⁷. A summary of the findings from English language papers, along with the level of evidence that underpins their use, is provided. The mediations announced in this audit incorporate activity, manual treatment/control, orthoses, laser, US, needle therapy, shock wave treatment (SWT), and multimodal physiotherapy treatment a large number of which have been looked at to placebo or control.

References

1. Binder AI, Hazleman BL. Lateral humeral epicondylitis—a study of natural history and the effect of conservative therapy. *Rheumatology*. 1983;22(2):73-6. doi: <https://doi.org/10.1093/rheumatology/22.2.73>
2. Bisset L, Beller E, Jull G, et al. Mobilisation with movement and exercise, corticosteroid injection, or wait and see for tennis elbow: randomised trial. *Bmj*. 2006;333(7575):939. doi: <https://doi.org/10.1136/bmj.38961.584653.AE>
3. Coombes BK, Bisset L, Brooks P, et al. Effect of corticosteroid injection, physiotherapy, or both on clinical outcomes in patients with unilateral lateral epicondylalgia: a randomized controlled trial. *Jama*. 2013;309(5):461-9.
4. Hudak PL, Cole DC, Haines AT. Understanding prognosis to improve rehabilitation: the example of lateral elbow pain. *Arch phy med rehab*. 1996;77(6):586-93. doi: [https://doi.org/10.1016/S0003-9993\(96\)90300-7](https://doi.org/10.1016/S0003-9993(96)90300-7)
5. Bot SD, van der Waal JM, et al. Course and prognosis of elbow complaints: a cohort study in general practice. *Annals of the rheumatic diseases*. 2005;64(9):1331-6. doi: <http://dx.doi.org/10.1136/ard.2004.030320>
6. Herquelot E, Bodin J, Roquelaure Y, et al. Work-related risk factors for lateral epicondylitis and other cause of elbow pain in the working population. *American journal of industrial medicine*. 2013;56(4):400-9. doi: <https://doi.org/10.1002/ajim.22140>
7. Coombes BK, Bisset L, Vicenzino B. Efficacy and safety of corticosteroid injections and other injections for management of tendinopathy: a systematic review of

randomised controlled trials. The Lancet.2010;376(9754)
:1751-67.

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