

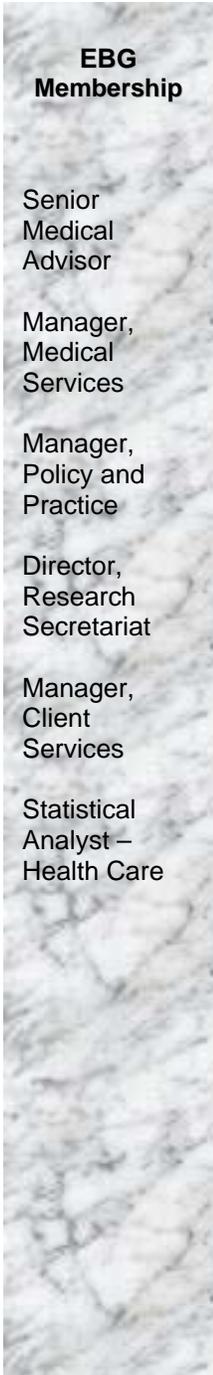


WORKERS' COMPENSATION BOARD OF BC

Evidence Based Practice Group (EBPG)

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Lateral Epicondylitis

Recently, the Evidence Based Practice Group (EBPG) has been asked to review the effectiveness of elbow bracing in treating patients with lateral epicondylitis. Our initial search on this topic has resulted in several good qualities, high level reviews on the effect of various lateral epicondylitis treatment modalities. In particular, a review presented in the 11th edition (June 2004) of Clinical Evidence (BMJ Publishing Group; a copy of this book is available at the WCB Library with call number WB 102 C 63 2004) is of high quality and is worthwhile reading. As such, the EBPG has decided to summarize and up-date the available evidence on the effectiveness of various treatment modalities applied to lateral epicondylitis patients using the information from Clinical Evidence as a baseline. The systematic review available from Clinical Evidence, that was current to April 2003, is presented in this short communication. In the near future, the EBPG will send you an up-date on other available evidence from May 2003 to date.

Lateral epicondylitis (LE), which is known by various other names such as tennis elbow, rowing elbow and lateral elbow pain, is a common condition. The number of newly diagnosed and old cases (prevalence) of LE in the population is estimated at 1% - 3%. The number of new cases only (incidence) in general practice is estimated at 4 - 7/1000 people per year. The peak incidence is 40 -50 years of age.

LE is generally a self limiting disease. However, in a minority of people symptoms may persist for 18 - 24 months or longer. It has been shown that among those with elbow pain > 4 weeks and not receiving any treatment, 80% will recover by 1 year.

Various treatments methods have been applied in treating LE including exercise and mobilization, topical or oral non-steroid anti-inflammatory drugs (NSAIDs), acupuncture (needle-, laser- or electro-acupuncture), orthoses (brace, splint, cast), corticosteroid injections, extra-corporeal shock wave therapy and surgery. By applying a rigorous, standardized protocol, the authors at the Clinical Evidence conducted a systematic review (up to April 2003) (level 1 evidence, see Appendix 1) on the effectiveness of these various methods. The available evidence is summarized below:

- Topical or oral NSAIDs may provide short term relief of pain (up to 28 days) compared to placebo. In the long term, oral NSAIDs may be more effective than corticosteroid injections.
- Exercise and mobilization may reduce symptoms, up to 8 weeks, compared to ultrasound + friction massage.
- Corticosteroid injections may provide short term improvement in symptoms compared to placebo, local anesthetics, elbow strapping (orthoses), physiotherapy or oral NSAIDs (none of the studies measured return to work as the outcome). However, in the long term, there was some evidence that steroid injection was less effective compared to oral NSAIDs or physiotherapy.
- There was no significant evidence on the effectiveness of acupuncture in treating LE compared to placebo.
- There was no significant evidence on the effectiveness of various **orthoses** in treating LE compared to placebo or physiotherapy.
- Extra-corporeal shock wave therapy (ESWT) showed no difference in symptomatology than sham treatment at 3 months. The EBPG will soon publish an update on the effectiveness of ESWT in treating various conditions, including LE. Based on the available evidence, the EBPG concluded that the evidence on the effectiveness of ESWT in treating LE is inconclusive (level 1 evidence).
- There was no level 1 or 2 evidence on the effectiveness of surgery in treating LE. Various open and percutaneous operations for LE have been described based upon the surgeon's concept of the pathological entity.

It is hoped that this update will be useful to you when responding to claims concerns. This short communication will also be posted on:

- the EBPG BoardNET site at

http://rc14ip21/system/system.asp?source=http://RC14IP21/central/divisions/compensationservices/evidence/content/documents/evidencetopics_therapies.htm

- and the WorkSafe site at

http://www.worksafebc.com/for_health_care_providers/related_information/evidence_based_medicine/default.asp

Appendix 1.**Workers' Compensation Board of BC - Evidence Based Practice group. Levels of evidence**
(adapted from 1,2,3,4)

1	Evidence from at least 1 properly randomized controlled trial (RCT) or systematic reviews of RCTs.
2	Evidence from well-designed controlled trials without randomization or systematic reviews of observational studies.
3	Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.
4	Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments could also be included here.
5	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

Reference.

1. Canadian Task Force on the Periodic Health Examination: The periodic health examination. CMAJ. 1979;121:1193-1254.
2. Houston TP, Elster AB, Davis RM et al. The US Preventive Services Task Force Guide to Clinical Preventive Services, Second Edition. AMA Council on Scientific Affairs. American Journal of Preventive Medicine. May 1998;14(4):374-376.
3. Scottish Intercollegiate Guidelines Network (2001). SIGN 50: a guideline developers' handbook. SIGN. Edinburgh.
4. Canadian Task Force on Preventive Health Care. New grades for recommendations from the Canadian Task Force on Preventive Health Care. CMAJ. Aug 5, 2003;169(3):207-208