Published in final edited form as:

Eur J Integr Med. 2016 August ; 8(4): 324–325. doi:10.1016/j.eujim.2016.06.005.

A Summary of a Cochrane Review: Acupuncture for the prevention of tension-type headache

Nancy Santesso, RD MLIS PhD^{1,*} and L. Susan Wieland, MPH PhD²

¹McMaster University, Hamilton, Canada

²University of Maryland, Baltimore MD, USA

1. Introduction

Review authors in the Cochrane Collaboration conducted a review of the effects of acupuncture for preventing tension-type headaches. After searching for all relevant studies, they identified 2 studies comparing acupuncture to usual care, 4 studies comparing acupuncture to a physiotherapy, massage or exercise treatment, and 7 studies comparing acupuncture to a sham (placebo) acupuncture treatment. This summary presents the findings of these 7 studies.

1.1. Acupuncture and tension-type headache

Tension headaches are very common. When these headaches are mild or infrequent, treatment with over-the-counter painkillers may be sufficient. However, very severe or frequent tension-type headaches may affect overall functioning and quality of life. In these cases antidepressants and behavioural treatments such as relaxation or biofeedback may be helpful, but there is a need for additional safe and effective treatments. Many people use acupuncture to treat tension-type headaches, and this review was carried out to summarize the evidence on the effects of acupuncture treatment for this type of headache.

2. What does the research say?

Seven studies with a total of 795 people compared the effects of acupuncture and sham acupuncture in people suffering from tension-type headaches. In these seven studies, people with tension-type headaches were randomly selected to receive either true acupuncture or sham acupuncture to reduce the number and intensity of tension-type headaches. During the sham acupuncture, acupuncture needles were placed away from the correct acupuncture points or were not allowed to penetrate the skin. Participants were given at least six treatment sessions and treated at least once per week.

*Corresponding author, santesna@mcmaster.ca.

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The evidence from the studies was of moderate to low quality. The quality was lower because none of the studies prevented the treatment providers from knowing whether they were delivering true acupuncture or sham acupuncture (that is, they were not blinded), and this may have influenced the treatment and therefore the outcomes. It also appears that information on adverse events was not collected systematically. Based on this evidence, in general, people who have frequent tension-type headaches will probably have slightly fewer headaches at 3-4 months after beginning a course of acupuncture. Specifically, people will probably have fewer 'headache days' per month, and probably more people will have half as many headaches. There may also be little or no difference in adverse events when acupuncture is provided. However, there may be little or no difference in the intensity of the headaches (see Table 1).

This review also looked for studies that added acupuncture to usual care, and that compared acupuncture to other common treatments, such as physiotherapy, massage or exercise. However, the results of these comparisons were uncertain and more trials comparing acupuncture to usual care or to these other treatments are needed.

3. Where does this information come from?

This summary is based on a Cochrane systematic review: Linde K, Brinkhaus B, Fei Y, Mehring M, Shin BC, Vickers A, White AR. Acupuncture for the prevention of tension-type headache. Cochrane Database Syst Rev. 2016, Issue 4. Art. No.: CD007587. DOI: 10.1002/14651858.CD007587.pub2.

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Acknowledgment

This article was prepared on behalf of the Cochrane Complementary Medicine Field with funding from the US National Center for Complementary and Alternative Medicine (NCCAM) of the US National Institutes of Health (grant number R24 AT001293). This Summary of Findings column series in the European Journal of Integrative Medicine is coordinated and edited by L. Susan Wieland, the Coordinator of the Cochrane Complementary Medicine Field.

Summary of Findings Table

Effects of acupuncture on tension-type headache after 3 to 4 months

What was measured	Effect when receiving sham acupuncture	Effect when receiving true acupuncture	Quality of the evidence	What happens when receiving true acupuncture
Number of people with half the number of headaches (4 studies, 703 people)	40 out of 100 people	On average 11 more people (from 4 to 19 more)	⊕⊕⊕⊕ moderate ^a	There are probably more people with half the number of headaches.
Number of days per month with a headache (4 studies, 653 people)	7 to 16 days	On average 2 days fewer (from 1 to 3 fewer)	⊕⊕⊕⊕ moderate ^a	People will probably have fewer days with a headache.
Headache intensity (4 studies, 655 people) Scale from 0 to 100 Lower scores mean less pain.	60 units on average	On average 2 units lower (from 4 lower to 1 higher)	⊕⊕⊕⊕ moderate ^a	There is probably little to no difference in headache intensity.
Number of days per month using pain medication (3 studies, 261 people)	2.6 days	On average 0.8 days fewer (from 1.5 to 0.1 fewer)	⊕⊕⊕⊕ moderate ^b	The number of days people will use pain medication is probably slightly reduced.
Adverse events (7 studies, 795 people)	One study reported that one person dropped out due to adverse events of acupuncture. Of the 3 studies (277 participants) reporting on adverse events, most reported similar numbers of adverse events or no adverse events.		⊕⊕⊕⊕ low ^c	There may be little or no difference in adverse events.

a. Details about the quality of the evidence

^aEvidence was moderate quality because the providers of the study treatments were not blinded and it is unclear if some of the studies were well-conducted.

^bEvidence was moderate quality because the providers of the study treatments were not blinded and there are not many people included in the studies (fewer than 300 total).

^cEvidence was low quality because it is unclear whether the methods for collecting information about adverse events were appropriate, and there are not many people included in the studies reporting on adverse events (fewer than 300 total) .