

## ACUPUNCTURE (UPDATED APRIL 2008)

### CLINICAL QUESTION

Is acupuncture effective in the management of chronic non-malignant low back pain  $\geq 3$  months' duration?

### THE EVIDENCE

Treatment	Condition	Comparator	Relevant Results/Authors' Conclusions <sup>#</sup>
Acupuncture <sup>†</sup>	Chronic non-malignant low back pain	No treatment	<p><b>Moderate</b> evidence that acupuncture is more effective for pain relief in the immediate<sup>a</sup> and short-term<sup>b</sup> follow-up and for functional improvement in the immediate<sup>a</sup> follow-up.</p> <p><b>Limited</b> evidence that acupuncture is more effective for functional and global improvement in the short-term<sup>b</sup> follow-up.</p>
Acupuncture <sup>‡</sup>	Chronic non-malignant low back pain  <i>(Two RCTs subacute and chronic low back pain; &gt;50% chronic low back pain)</i>	Sham acupuncture or placebo	<p><b>Conflicting</b> evidence that acupuncture is more effective for pain relief in the immediate<sup>a</sup> and short-term<sup>b</sup> follow-up and for functional improvement in the short-<sup>b</sup> and intermediate-term<sup>c</sup> follow-up.</p> <p><b>Moderate</b> evidence that there is no difference between acupuncture and sham acupuncture or placebo for pain relief in the intermediate-<sup>c</sup> and long-term<sup>d</sup> follow-up; global function and return to work improvement in the intermediate-term<sup>c</sup> and functional improvement in the long-term<sup>d</sup> follow-up.</p> <p><b>Limited</b> evidence that acupuncture is more effective for global improvement in the short-term<sup>b</sup> follow-up.</p>
Acupuncture <sup>§</sup>	Chronic non-malignant low back pain  <i>(Three RCTs subacute and chronic low back pain; &gt;50% chronic low back pain)</i>	Other interventions (spinal manipulative therapy [SMT], massage, self-care, transcutaneous electrical nerve stimulation [TENS])	<p><b>Limited</b> evidence in favour of SMT for pain relief and functional improvement in the short-term<sup>b</sup> follow-up.</p> <p><b>Limited</b> evidence that there is no difference between acupuncture and massage or between acupuncture and self-care for pain relief in the immediate<sup>a</sup> follow-up but there is a difference in favour of massage for pain relieve and functional improvement in the long-term<sup>d</sup> follow-up.</p> <p><b>Limited</b> evidence that there is no difference between acupuncture and self-care for pain relief and functional improvement in the immediate<sup>a</sup> and long-term<sup>d</sup> follow-up.</p> <p><b>Limited</b> evidence that there is no difference between acupuncture and TENS for pain relief in the intermediate-term<sup>c</sup> and for functional improvement in immediate-<sup>a</sup> and intermediate-term<sup>c</sup> follow-up.</p> <p><b>Conflicting</b> evidence that acupuncture is more effective than TENS for pain relief immediate<sup>a</sup> after the treatment.</p>
Acupuncture plus other interventions <sup>¶</sup>  (therapies: exercise, physiotherapy, usual medical care, conventional orthopaedic therapy; specific treatments within therapies: NSAIDs, aspirin,	Chronic non-malignant low back pain  <i>(Two RCTs subacute and chronic low back pain; &gt;50% chronic low back pain)</i>	Other intervention alone	<p><b>Moderate</b> evidence that the addition of acupuncture to another intervention is more effective than the other intervention alone for pain relief (P) and functional improvement (F):</p> <ul style="list-style-type: none"> <li>• acupuncture &amp; exercise at immediate<sup>a</sup> and short-term<sup>b</sup> (P)</li> <li>• acupuncture &amp; orthopaedic treatment at short-term<sup>b</sup> (P)</li> <li>• acupuncture &amp; usual medical care at short-term<sup>b</sup> (P, F).</li> </ul>

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non-narcotic analgesic, mud packs, infrared heat therapy, back care education, ergonomics, behavioural modification)			<p><b>Limited</b> evidence that the addition of acupuncture to another intervention is more effective than the other intervention alone for pain relief (P) and functional improvement (F):</p> <ul style="list-style-type: none"> <li>• acupuncture &amp; physiotherapy at immediate<sup>a</sup> (P) and intermediate-term (P,F)</li> <li>• acupuncture &amp; exercise at immediate<sup>a</sup> and short-term<sup>b</sup> (F)</li> <li>• acupuncture &amp; usual medical care at long-term<sup>d</sup> (P) and immediate<sup>a</sup> and intermediate-term<sup>c</sup> (F).</li> </ul>
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<sup>†</sup>Based on one **GOOD**\* and two **POOR**\* quality randomised controlled trials (RCTs), as assessed by the authors of this review, published between 1980 and 2006; <sup>‡</sup>Based on two **GOOD**\*, two **AVERAGE**\* and three **POOR**\* quality RCTs published between 1983 and 2006; <sup>§</sup>Based on one **GOOD**\*, three **AVERAGE**\* and one **POOR**\* quality RCTs published between 1986 and 2003; <sup>¶</sup>Based on one **GOOD**\*, four **AVERAGE**\* and two **POOR**\* quality RCTs published between 2002 and 2006; <sup>#</sup>Refer to Grading Key document for explanation of evidence grading. Follow-ups: <sup>a</sup> immediate after the treatment: up to one week; <sup>b</sup> short-term: one week to 3 months; <sup>c</sup> intermediate term: 3 months to one year; <sup>d</sup> long-term: more than one year

## IMPLICATIONS FOR PRACTICE

### What we don't know:

- Is the effectiveness of acupuncture affected by specific techniques, use of the adjunct treatments, number of needles and/or acupuncture points used, number and length of sessions, duration of the treatment, and or experience of the acupuncturist?

### Research Evidence: What we know

Acupuncture is more effective than no treatment but acupuncture is no more effective than other conventional therapies at achieving pain relief and functional improvement. Addition of acupuncture to other therapies is more effective for pain relief and functional improvement than the same therapies without acupuncture.

Approximately 6% to 8% of patients treated with acupuncture report minor complications and side effects including worsening of the pain in some cases.

### Recommendation from Clinical Ambassadors

Acupuncture is worth trying in chronic low back pain. There may be a role for it as a stand-alone therapy, or as an adjunct to another type of therapy. We can't say if you should explore this before or after more conventional methods. While clinically we sometimes see improvements with this treatment, there isn't yet enough evidence to predict those in whom it is likely to be successful. Extended trials without benefit are not warranted.

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**Reference:** This Evidence Brief is based on results from a **GOOD**\* quality systematic review (SR).  
Ammendolia C, Furlan AD, Imamura M, Irvin E, van Tulder M. Evidence-informed management of chronic low back pain with needle acupuncture. *Spine J* 2008;8(1):160-172

\*Quality ratings for RCTs & SR: Good ● Average ● Poor ●

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