



A Cochrane review of superficial heat or cold for low back pain.

[French SD](#), [Cameron M](#), [Walker BF](#), [Reggars JW](#), [Esterman AJ](#).

Australasian Cochrane Centre, Monash Institute of Health Services Research, Monash University, Clayton, Victoria, Australia. simon.french@med.monash.edu.au

STUDY DESIGN: Cochrane systematic review.

OBJECTIVE: To assess the effects of superficial heat and cold therapy for low back pain in adults.

SUMMARY OF BACKGROUND DATA: Heat and cold are commonly used in the treatment of low back pain.

METHODS: We searched electronic databases from inception to October 2005. Two authors independently assessed inclusion, methodologic quality, and extracted data, using the criteria recommended by the Cochrane Back Review Group.

RESULTS: Nine trials involving 1,117 participants were included. In two trials of 258 participants with a mix of acute and subacute low back pain, heat wrap therapy significantly reduced pain after 5 days (weighted mean difference [WMD], 1.06; 95% confidence interval [CI], 0.68-1.45, scale range, 0-5) compared with oral placebo.

One trial of 90 participants with acute low back pain found that a heated blanket significantly decreased pain immediately after application (WMD, -32.20; 95% CI, -38.69 to -25.71; scale range, 0-100).

One trial of 100 participants with a mix of acute and subacute low back pain examined the additional effects of adding exercise to heat wrap and found that it reduced pain after 7 days.

CONCLUSIONS: The evidence base to support the common practice of superficial heat and cold for low back pain is limited, and there is a need for future higher-quality randomized controlled trials. There is moderate evidence in a small number of trials that heat wrap therapy provides a small short-term reduction in pain and disability in a population with a mix of acute and subacute low back pain, and that the addition of exercise further reduces pain and improves function.

There is insufficient evidence to evaluate the effects of cold for low back pain and conflicting evidence for any differences between heat and cold for low back pain.

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