

## Insufficient evidence of benefit of topical rubefaciants for musculoskeletal pain in adults

<b>Clinical question</b>	How effective are topical rubefaciants for acute and chronic painful musculoskeletal conditions in adults?
<b>Bottom line</b>	Although the analysis of all studies in acute conditions produced a significant benefit compared with placebo at 7 days, with NNT* 3 for 50% pain relief, this finding was based on only 4 heterogeneous studies. Analysis of 6 studies in chronic conditions produced a significant benefit compared with placebo at 14 days, with NNT 6 for 50% pain relief. However, this compares poorly with the efficacy of topical non-steroidal anti-inflammatory drugs (NNT 3). Topical salicylates do appear to be relatively well-tolerated in the short term, though the conclusion is limited by a relatively small number of participants. There is no evidence for topical rubefaciants with other components. * NNT = number needed to treat to benefit 1 individual
<b>Caveat</b>	Studies were generally small. There was a variety of interventions and outcomes used in these studies, and a range of different methods for measuring pain intensity or pain relief. Adverse events and withdrawals were generally poorly reported with little detail provided. Most studies did not provide details of the volume of cream applied, though some specified the application schedule.
<b>Context</b>	Rubefaciants (containing salicylates or nicotinamides) cause irritation of the skin, and are believed to relieve various musculoskeletal pains. They are available on prescription, and are common components in over-the-counter preparations.
<b>Cochrane Systematic Review</b>	Matthews P et al. Topical rubefaciants for acute and chronic pain in adults. Cochrane Reviews 2009, Issue 3. Article No. CD007403. DOI:10.1002/14651858.CD007403.pub2. This review contains 16 studies involving 1276 participants.
<b>PEARLS No. 215, November 2009, written by Brian R McAvoy</b>	

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