

## Herbal medicine for low-back pain.

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### Author information

#### Abstract

**BACKGROUND:** Low-back pain (LBP) is a common condition and imposes a substantial economic burden upon people living in industrialized societies. A large proportion of people with chronic LBP use complementary and alternative medicine (CAM), visit CAM practitioners, or both. Several herbal medicines have been purported for use in treating people with LBP. This is an update of a Cochrane Review first published in 2006.

**OBJECTIVES:** To determine the effectiveness of herbal medicine for non-specific LBP.

**SEARCH METHODS:** We searched the following electronic databases up to September 2014: MEDLINE, EMBASE, CENTRAL, CINAHL, ClinicalTrials.gov, World Health Organization International Clinical Trials Registry Portal and PubMed; checked reference lists in review articles, guidelines and retrieved trials; and personally contacted individuals with expertise in this area.

**SELECTION CRITERIA:** We included randomized controlled trials (RCTs) examining adults (over 18 years of age) suffering from acute, sub-acute, or chronic non-specific LBP. The interventions were herbal medicines which we defined as plants used for medicinal purposes in any form. Primary outcome measures were pain and function.

**DATA COLLECTION AND ANALYSIS:** A library scientist with the Cochrane Back Review Group conducted the database searches. One review author contacted content experts and acquired relevant citations. We downloaded full references and abstracts of the identified studies and retrieved a hard copy of each study for final inclusion decisions. Two review authors assessed risk of bias, GRADE criteria (GRADE 2004), and CONSORT compliance and a random subset were compared to assessments by a third individual. Two review authors assessed clinical relevance and resolved any disagreements by consensus.

**MAIN RESULTS:** We included 14 RCTs (2050 participants) in this review. One trial on *Solidago chilensis* M. (Brazilian arnica) (20 participants) found very low quality evidence of reduction in perception of pain and improved flexibility with application of Brazilian arnica-containing gel twice daily as compared to placebo gel. *Capsicum frutescens* cream or plaster probably produces more favourable results than placebo in people with chronic LBP (three trials, 755 participants, moderate quality evidence). Based on current evidence, it is not clear whether topical capsaicin cream is more beneficial for treating people with acute LBP compared to placebo (one trial, 40 participants, low quality evidence). Another trial found equivalence of *C. frutescens* cream to a homeopathic ointment (one trial, 161 participants, very low quality evidence). Daily doses of *Harpagophytum procumbens* (devil's claw), standardized to 50 mg or 100 mg harpagoside, may be better than placebo for short-term improvements in pain and may reduce use of rescue medication (two trials, 315 participants, low quality evidence). Another *H. procumbens* trial demonstrated relative equivalence to 12.5 mg per day of rofecoxib (Vioxx®) but was of very low quality (one trial, 88 participants, very low quality). Daily doses of *Salix alba* (white willow bark), standardized to 120 mg or 240 mg salicin, are probably better than placebo for short-term improvements in pain and rescue medication (two trials, 261 participants, moderate quality evidence). An additional trial demonstrated relative equivalence to 12.5 mg per day of rofecoxib (one trial, 228 participants) but was graded as very low quality evidence. *S. alba* minimally affected platelet thrombosis versus a cardioprotective dose of acetylsalicylate (one trial, 51 participants). One trial (120 participants) examining *Symphytum officinale* L. (comfrey root extract) found low quality evidence that a *Kytta-Salbe* comfrey extract ointment is better than placebo ointment for short-term improvements in pain as assessed by VAS. Aromatic lavender essential oil applied by acupuncture may reduce subjective pain intensity and improve lateral spine flexion and walking time compared to untreated participants (one trial, 61 participants, very low quality evidence). No significant adverse events were noted within the included trials.

**AUTHORS' CONCLUSIONS:** *C. frutescens* (Cayenne) reduces pain more than placebo. Although *H. procumbens*, *S. alba*, *S. officinale* L., *S. chilensis*, and lavender essential oil also seem to reduce pain more than placebo, evidence for these substances was of moderate quality at best. Additional well-designed large trials are needed to test these herbal medicines against standard treatments. In general, the completeness of reporting in these trials was poor. Trialists should refer to the CONSORT statement extension for reporting trials of herbal medicine interventions.