

# Acupuncture for Chronic Non-Cancer Pain: A Review

## Key Messages

- Overall, low-quality evidence suggests that acupuncture may be an effective intervention for decreasing pain for adults living with chronic pain, but there were some inconsistent results depending on the patient population and type of acupuncture. Some studies reported no difference in adverse events between acupuncture groups and comparator groups.
- One economic evaluation conducted in Iran found that electroacupuncture had a lower average cost-effectiveness ratio than nonsteroidal anti-inflammatory drugs for patients with chronic low back pain. However, firm cost-effectiveness conclusions cannot be drawn as the incremental cost-effectiveness ratio was not reported. Additional high-quality Canadian economic studies are needed to determine the cost-effectiveness of acupuncture.
- Six evidence-based guidelines provided recommendations of varying strengths for the use of acupuncture in several chronic pain conditions (including chronic low back pain, different types of arthritis, and other pain disorders).
- Two guidelines did not provide recommendations for acupuncture in patients with chronic low back pain and spinal cord–related neuropathic injuries due to insufficient evidence.
- One guideline recommended against electroacupuncture (over simulated acupuncture) for chronic neck pain due to evidence of no effectiveness.
- More high-quality research is needed on the clinical effectiveness of acupuncture, as the primary studies contained in the systematic reviews were of low quality.

## Context

Chronic pain is pain that persists or reoccurs for more than three months. It affects 20% of Canadians, and can cause significant emotional distress, negatively affect aspects of a person's life,

and be difficult to manage. The World Health Organization has acknowledged chronic pain as a legitimate disease and not merely a symptom of another disease. There are many pharmacological and non-pharmacological ways to manage chronic pain.

## Technology

Acupuncture has been used to relieve pain for thousands of years. There are many different types of acupuncture, including but not limited to:

- Acupuncture: An acupuncture needle is inserted into an acupoint.
- Manual acupuncture: An acupuncture needle is inserted into an acupoint and manually manipulated.
- Electroacupuncture: An acupuncture needle is inserted into an acupoint and electrically stimulated.
- Dry needling: An acupuncture needle is inserted into a trigger point.
- Moxibustion or warm needle acupuncture: An acupuncture needle is inserted into an acupoint and moxa (dried mugwort) is burned on the other end.

## Issue

Acupuncture may be a useful, non-pharmacological treatment for people experiencing chronic pain. A review of the clinical effectiveness, cost-effectiveness, and evidence-based guidelines may help inform objective decision-making regarding acupuncture as a treatment option for managing chronic pain.

## Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

## Results

The findings from 33 publications (23 systematic reviews, one economic evaluation, and nine evidence-based guidelines) were summarized.

The clinical effectiveness evidence identified reported the following conclusions:

- Acupuncture compared with sham therapy:
  - Decreased pain intensity for chronic prostatitis and chronic pelvic pain syndrome, chronic headache, chronic neck pain, chronic shoulder pain, sciatica, myofascial pain, hip osteoarthritis, knee osteoarthritis, osteoarthritis, and chronic low back pain
  - Showed conflicting results on pain intensity for patients with fibromyalgia
- Acupuncture compared with pharmacological therapy:
  - Decreased pain intensity for chronic knee pain, fibromyalgia, and chronic prostatitis and chronic pelvic pain syndrome
  - Showed no difference in pain intensity for chronic low back pain
  - Showed conflicting results on pain intensity for primary dysmenorrhea and chronic neck pain
- Electroacupuncture compared with sham therapy:
  - Decreased pain intensity for chronic prostatitis and chronic pelvic pain syndrome, knee osteoarthritis, fibromyalgia (immediately following treatment), and primary dysmenorrhea
- Electroacupuncture compared with nonsteroidal anti-inflammatory drugs (NSAIDs):
  - Decreased pain intensity for chronic knee pain
- Dry needling compared with sham therapy:
  - Showed no difference in pain intensity for plantar fasciitis
  - Showed conflicting results on pain intensity for myofascial pain syndrome
- Manual acupuncture compared with sham therapy:
  - Decreased pain intensity for patients with fibromyalgia
  - Showed no difference in pain intensity for myofascial pain syndrome

- Manual acupuncture compared with NSAIDs:
  - Decreased pain intensity of primary dysmenorrhea after three menstrual cycles
- Warm needle acupuncture compared with waitlist:
  - Decreased pain intensity for knee osteoarthritis
- Warm needle acupuncture compared with NSAIDs:
  - Decreased pain intensity for primary dysmenorrhea

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