# Effectiveness of acupuncture as adjunctive therapy in osteoarthritis of the knee: a randomized, controlled trial.

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Abstract

## **BACKGROUND:**

Evidence on the efficacy of acupuncture for reducing the pain and dysfunction of osteoarthritis is equivocal.

#### **OBJECTIVE:**

To determine whether acupuncture provides greater pain relief and improved function compared with sham acupuncture or education in patients with osteoarthritis of the knee.

#### **DESIGN:**

Randomized, controlled trial.

#### **SETTING:**

Two outpatient clinics (an integrative medicine facility and a rheumatology facility) located in academic teaching hospitals and 1 clinical trials facility.

#### **PATIENTS:**

570 patients with osteoarthritis of the knee (mean age [+/-SD], 65.5 +/- 8.4 years).

#### **INTERVENTION:**

23 true acupuncture sessions over 26 weeks. Controls received 6 two-hour sessions over 12 weeks or 23 sham acupuncture sessions over 26 weeks.

#### **MEASUREMENTS:**

Primary outcomes were changes in the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain and function scores at 8 and 26 weeks. Secondary outcomes were patient global assessment, 6-minute walk distance, and physical health scores of the 36-Item Short-Form Health Survey (SF-36).

#### **RESULTS:**

Participants in the true acupuncture group experienced greater improvement in WOMAC function

scores than the sham acupuncture group at 8 weeks (mean difference, -2.9 [95% CI, -5.0 to -0.8]; P = 0.01) but not in WOMAC pain score (mean difference, -0.5 [CI, -1.2 to 0.2]; P = 0.18) or the patient global assessment (mean difference, 0.16 [CI, -0.02 to 0.34]; P > 0.2). At 26 weeks, the true acupuncture group experienced significantly greater improvement than the sham group in the WOMAC function score (mean difference, -2.5 [CI, -4.7 to -0.4]; P = 0.01), WOMAC pain score (mean difference, -0.87 [CI, -1.58 to -0.16]; P = 0.003), and patient global assessment (mean difference, 0.26 [CI, 0.07 to 0.45]; P = 0.02).

#### LIMITATIONS:

At 26 weeks, 43% of the participants in the education group and 25% in each of the true and sham acupuncture groups were not available for analysis.

## **CONCLUSIONS:**

Acupuncture seems to provide improvement in function and pain relief as an adjunctive therapy for osteoarthritis of the knee when compared with credible sham acupuncture and education control groups.

# **Comment in**

- <u>Acupuncture and knee osteoarthritis.</u> [Ann Intern Med. 2005]
- <u>Acupuncture effective for osteoarthritis of the knee.</u> [J Fam Pract. 2005]
- <u>Acupuncture and knee osteoarthritis.</u> [Ann Intern Med. 2005]

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