

Collected Scientific Research Relating to the Use of Osteopathy with Osteoarthritis

Important:

1) Osteopathy involves helping people's own self-healing abilities to work better, rather than focussing primarily on particular conditions.

2) Each person is different, and osteopathy treats them differently.

Therefore people respond to osteopathic treatment in different ways. Treatments that work for one person cannot be guaranteed to work for another person in the same way. The fact that there is scientific research supporting a treatment in a group of people does not mean that it will always work in the same way (which is probably true of all research).

A number of things make research into osteopathy challenging. These include the two aspects of osteopathy mentioned above, and also the lack of major commercial interests to provide funding in expectation of financial returns. At the same time, there is an emerging body of research demonstrating the usefulness of osteopathic treatment.

More research is being done all of the time. I am not aware of any research which shows that osteopathic treatment, delivered by a qualified osteopath, is ineffective in relation to this area. If you are aware of any studies that show that, please bring them to my attention.

Please note: there is room for debate about the classifications used for these studies. Please let John Smartt know if you believe that any of these classifications are incorrect.

These studies are from peer-reviewed journals

Number of studies: 5

Clinically and statistically significant results

Number of studies: 4

Randomised controlled trials

Number of studies: 4

Hinman R 2014 **Manual physiotherapy or exercise leads to sustained reductions in pain and physical disability in people with hip and knee osteoarthritis.** J Physiother Mar;60(1):56 <http://www.ncbi.nlm.nih.gov/pubmed/24856943>

"Design: Randomised, controlled trial with concealed allocation and blinded outcome assessment. Setting: Referrals from general practitioners in New Zealand. Participants: Patients were eligible if they met American College of Rheumatology clinical criteria for OA of the hip and knee. Randomisation of 206 participants allocated 54 to manual therapy, 51 to exercise therapy, 50 to combined exercise and manual therapy, and 51 to usual care. Interventions: All participants received usual care offered by their own doctor and other healthcare providers. In addition, the manual therapy group received manual procedures that aimed to modify the quality and range of motion of the affected joint and associated soft tissues; this was supplemented by home joint range-of-motion activities three times per week. The exercise group completed supervised aerobic, strengthening, stretching and neuromuscular coordination exercises, which were supplemented by home exercise three times per week. Combination therapy consisted of a combination of the manual therapy and exercise interventions."

"At 1 year, compared with the usual care group, there was a reduction in WOMAC in the manual therapy group by 28.5 points (95% CI 9.2 to 47.8), exercise group by 16.4 (95% CI -3.23 to 35.9) and for combined therapy by 14.5 (95% CI -5.2 to 34.1)."

Seffinger MA 2014 **Manual Therapy or Exercise Effective for Hip or Knee Osteoarthritis** J Am Osteopath Assoc Vol. 114, 63 <http://jaoa.org/article.aspx?articleid=2094897&resultClick=1>

"Researchers in New Zealand carried out a rigorous randomized controlled trial that evaluated the effectiveness of manual therapy and exercise in addition to usual care in alleviating symptoms and improving function in patients with hip or knee osteoarthritis (OA)."

"The authors found that participants in the manual therapy group had significant ($P < .03$) and clinically important sustained improvements in symptoms at 1 year. Those in the exercise therapy group also had sustained benefit with respect to physical performance tests. No added benefit was found in the group who underwent both therapies."

Pinto D, Robertson MC, Abbott JH, Hansen P, Campbell AJ; MOA Trial Team. 2013 **Manual therapy, exercise therapy, or both, in addition to usual care, for osteoarthritis of the hip or knee. 2: economic evaluation alongside a randomized controlled trial.** Osteoarthritis Cartilage Oct;21(10):1504-13 <http://www.ncbi.nlm.nih.gov/pubmed/23811491>

"206 Adults who met the American College of Rheumatology criteria for hip or knee osteoarthritis were included in an economic evaluation from the perspectives of the New

Zealand health system and society alongside a randomized controlled trial. Resource use was collected using the Osteoarthritis Costs and Consequences Questionnaire. Quality-adjusted life years (QALYs) were calculated using the Short Form 6D. "

"From the societal perspective manual therapy was cost saving relative to usual care for most scenarios studied. Exercise therapy resulted in incremental cost utility ratios regarded as cost effective but was not cost saving. For most scenarios combined therapy was not as cost effective as the two therapies alone."

"In this study, exercise therapy and manual therapy were more cost effective than usual care at policy relevant values of willingness-to-pay from both the perspective of the health system and society. "

Jardine WM, Gillisb C, Rutherford D, 2012 **The effect of osteopathic manual therapy on the vascular supply to the lower extremity in individuals with knee osteoarthritis: A randomized trial** International Journal of Osteopathic Medicine Volume 15, Issue 4, December , Pages 125–133 <http://www.sciencedirect.com/science/article/pii/S1746068912000466>

"Results: The RI [resistive index of the superficial femoral artery] reduced significantly ($p < 0.008$) from pre to post test in the treatment group only. Significant pretest/posttest main effects were found for ROM, balance and symptom rating ($p < 0.05$). Conclusion: The significant difference in RI provides evidence for the benefits of specificity within osteopathic techniques, and reveal the vascular supply to the leg was affected by the fascial releases and will possibly influence some of the pathophysiological factors of an arthritic knee."

Mixed results (significant for some outcomes, not others)

Number of studies: 1

Randomised controlled trials

Number of studies: 1

Dwyer L, Parkin-Smith GF, Brantingham JW, Korporaal C, Cassa TK, Globe G, Bonnefin D, Tong V 2015 **Manual and manipulative therapy in addition to rehabilitation for osteoarthritis of the knee: assessor-blind randomized pilot trial.** Journal of Manipulative and Physiological Therapeutics Jan;38(1):1-21 <http://www.ncbi.nlm.nih.gov/pubmed/25455832>

"The purpose of this study was to examine the methodological integrity, sample size requirements, and short-term preliminary clinical outcomes of manual and manipulative therapy (MMT) in addition to a rehabilitation program for symptomatic knee osteoarthritis (OA)."

"This was a pilot study of an assessor-blinded, randomized, parallel-group trial in 2 independent university-based outpatient clinics. Participants with knee OA were randomized to 3 groups: 6 MMT sessions alone, training in rehabilitation followed by a home rehabilitation program alone, or MMT plus the same rehabilitation program, respectively. "

"Statistically significant and clinically meaningful changes in scores from baseline to week 5 were found for all groups for the Western Ontario and McMaster's Osteoarthritis Index ($P \leq .008$), with a greater change in scores for MMT and MMT plus rehabilitation. Between-group comparison did not reveal statistically significant differences between group scores at week 5 for any of the outcome measures ($P \geq .46$)."