

# Collected Scientific Research Relating to the Use of Osteopathy with Tissue-texture changes

## 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.

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:  
2

## Clinically and statistically significant results

Number  
of studies:  
2

### Randomised controlled trials

Number of studies: 1

Barnes PL, Laboy F, Noto-Bell L, Ferencz V, Nelson J, Kuchera ML 2013 **A comparative study of cervical hysteresis characteristics after various osteopathic manipulative treatment (OMT) modalities** Journal of Bodywork and Movement Therapies Volume 17, Issue 1, January , Pages 89–94 <http://www.sciencedirect.com/science/article/pii/S1360859212002252>

"Paraspinal tissues associated with cervical somatic dysfunction (SD) will demonstrate quantifiable change in myofascial hysteresis [tissue-texture] characteristics after a given OMT technique but not after a Sham intervention."

"240 subjects were palpated for cervical articular SD. A randomly selected intervention (5 OMT techniques or a Sham) was applied to the cervical SD clinically considered to be most severe. A durometer (SA201(®); Sigma Instruments, Cranberry, PA, USA) objectively measured myofascial structures overlying each cervical spinal segment pre- and post- intervention. Using a single consistent piezoelectric impulse, this durometer quantified four hysteresis (tissue texture) characteristics--fixation, mobility, frequency, and motoricity."

"Baseline changes in median hysteresis values were noted for each OMT technique but not for Sham interventions. Notably, segmental counterstrain OMT resulted in significant motoricity change compared to adjacent segmental myofascial measures (p-value 0.04) along with a suggestive trend in the mobility component (p-value 0.12)."

"When comparing treated to untreated cervical segments, the most significant change occurred post-counterstrain OMT with no overall change following Sham. Overall, quantifiable objective change occurs in myofascial tissues post-OMT, in addition to the noted clinical palpable change."

Clark BC, Walkowski S, Conatser RR, Eland DC, Howell JN. 2009 **Muscle functional magnetic resonance imaging and acute low back pain: a pilot study to characterize lumbar muscle activity asymmetries and examine the effects of osteopathic manipulative treatment.** *Osteopathic medicine and primary care* Aug 27;3:7 <http://www.ncbi.nlm.nih.gov/pubmed/19712459>

"In the subjects with LBP [low back pain], psoas T2 asymmetry was significantly reduced immediately following OMT (25.3 +/- 6.9 to 6.1 +/- 1.8%, p = 0.05), and the change in LBP immediately following OMT was correlated with the change in psoas T2 asymmetry (r = 0.75, p = 0.02)."

"This pilot work provides insight into the mechanistic actions of OMT [osteopathic manipulative therapy] during acute LBP, as it suggests that it may attenuate muscle activity asymmetries of some of the intrinsic low back muscles."