

# Collected Scientific Research Relating to the Use of Osteopathy with Diabetes melitis (issues associated with)

## 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: 3

## Clinically and statistically significant results

Number of studies: 3

### Systematic reviews

Number of studies: 1

Johnson AW, Shubrook JH Jr. 2013 **Role of osteopathic structural diagnosis and osteopathic manipulative treatment for diabetes mellitus and its complications.** J Am Osteopath Assoc Nov;113(11):829-36 <http://www.ncbi.nlm.nih.gov/pubmed/24174504>

"The present review surveys the literature that explores the effects of osteopathic structural diagnosis of and osteopathic manipulative treatment for T2DM, as well as the management and prevention of complications. The authors reviewed the databases for PubMed, Google Scholar, and The Journal of the American Osteopathic Association. Although the available literature is limited, the authors identify areas in which osteopathic-focused research has shown benefits and in which future research should be directed."

### Randomised controlled trials

Number of studies: 2

Joseph LH, Paungmali A, Dixon J, Holey L, Naicker AS, Htwe O 2016 **Therapeutic effects of connective tissue manipulation on wound healing and bacterial colonization count among patients with diabetic foot ulcer.** Journal of Bodywork and Movement Therapies Jul;20(3):650-6 [http://www.bodyworkmovementtherapies.com/article/S1360-8592\(16\)00011-5/abstract](http://www.bodyworkmovementtherapies.com/article/S1360-8592(16)00011-5/abstract)

"This study investigated the therapeutic effects of connective tissue manipulation (CTM) in diabetic foot ulcer (DFU). A total of 20 participants (10 in CTM group and 10 in conventional treatment group (CG)) with DFU underwent the conventional DFU treatment. In addition, the CTM group received CTM twice per week for 6 weeks. The percentage wound area reduction (PWAR) and bacterial colonization count (BCC) in log<sub>10</sub> colony-forming units (CFU) per ml wound fluid was evaluated at baseline and six weeks. Results showed a significant change in PWAR in CTM ( $p < 0.05$ ,  $t = 3.82$ ,  $Df = 9$ ,  $CI L = 0.98$   $U = 3.81$ ) and CG ( $p < 0.05$ ,  $t = 2.97$ ,  $Df = 9$ ,  $CI L = 0.26$   $U = 1.98$ ). Mean reduction of BCC showed a significant reduction ( $p < 0.05$ ), with percentage of BCC reduction higher in CTM group (6.45%) than CG (3.55%). The findings suggest CTM as an effective adjunct therapy for DFU to enhance conventional treatments."

Licciardone JC, Kearns CM, Hodge LM, Minotti DE. 2013 **Osteopathic manual treatment in patients with diabetes mellitus and comorbid chronic low back pain: subgroup results from the OSTEOPATHIC Trial.** J Am Osteopath Assoc Jun;113(6):468-78 <http://jaoa.org/article.aspx?articleid=2094659>

"Severe somatic dysfunction was present significantly more often in patients with diabetes mellitus than in patients without diabetes mellitus. Patients with diabetes mellitus who received OMT [osteopathic manipulative therapy] had significant reductions in LBP [low back pain]

severity during the 12-week period. Decreased circulating levels of TNF- $\alpha$  may represent a possible mechanism for OMT effects in patients with diabetes mellitus."