

# A Systematic Review of the Effectiveness of Manipulative Therapy for Temporomandibular Joint Disorders (TMD)

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***Yannick Hallemans, Osteopath D.O.***

## **Background**

In the scientific literature, several authors did recommend manipulative therapies for the management of pain and mobility of temporomandibular disorders (TMD). The aim of this study is to research if these recommendations are based on scientific proof.

## **Objectives**

The objectives of this systematic analysis of randomized controlled trials (RCTs) are to systematically screen the current literature in search for evidence of treatment efficiency of manipulative therapies concerning pain and mobility of the temporomandibular joint (TMJ).

## **Methods**

The data bases PubMed, PEDro and sciELO were screened for randomized controlled studies by using a previously defined search strategy. The RCT's included in this study were selected based on predefined inclusion and exclusion criteria. Furthermore, a qualitative assessment of all included RCT's was performed by using a defined review scheme. Outcome parameters for pain and mobility were used for the quantitative analysis and the calculation of the Cohen's defect sizes of the used interventions.

## **Results**

Between 2004 and 2014 seven RCT's were identified fulfilling the inclusion and exclusion criteria. All RCT's were quantitatively analyzed. The interventions applied in these 7 RCT's showed no or poor effect sizes. The interventions concerning mobility improvement of the 7 included RCT's showed no or moderate effect size. A qualitative assessment of all 7 included RCT's shows important methodological flaws.

## **Conclusion**

This systematic review of RCT's shows there is no strong evidence to prove that manipulative therapies have a positive influence on the management of pain or mobility of the TMJ, primarily because the methodology of the included and analyzed articles was so poor.

**Key Words:** Manipulative therapies, Temporomandibular Disorders, Pain, Mobility