**Article**: Zoete A, Rubinstein S, de Boer M, Ostelo R, Underwood M, Hayden J, Buffart L, et al. The Effect of Spinal Manipulative Therapy on Pain Relief and Function in Patients with Chronic Low Back Pain: An Individual Participant Data Meta-Analysis. Physiotherapy*.* 2021 September; 112: 121–34. <https://doi.org/10.1016/j.physio.2021.03.006>.

**Study Design**: Systematic Review and Meta-Analysis

**Abstract:**

Background - A 2019 review concluded that spinal manipulative therapy (SMT) results in similar benefit compared to other interventions for chronic low back pain (LBP). Compared to traditional aggregate analyses individual participant data (IPD) meta-analyses allows for a more precise estimate of the treatment effect.

Purpose - To assess the effect of SMT on pain and function for chronic LBP in a IPD meta-analysis.

Data sources - Electronic databases from 2000 until April 2016, and reference lists of eligible trials and related reviews.

Study selection - Randomized controlled trials (RCT) examining the effect of SMT in adults with chronic LBP compared to any comparator.

Data extraction and data synthesis - We contacted authors from eligible trials. Two review authors independently conducted the study selection and risk of bias. We used GRADE to assess the quality of the evidence. A one-stage mixed model analysis was conducted. Negative

point estimates of the mean difference (MD) or standardized mean difference (SMD) favors SMT.

**NIH Risk Bias**: 7/8 (Low risk of bias)

**Key Findings of Study**:

1. Spinal manipulative therapy (SMT) appears to be a good option for the treatment of low-back pain (LBP)
2. SMT provides similar outcomes to recommended interventions for pain relief and improvement of functional status in patients with LBP
3. Moderate quality evidence that SMT has similar effects as spinal mobilization

**Reviewer Summary**: This systematic review and meta-analysis has a low-risk bias. The use of individual participant data (IPD) meta-analysis made the selection of the randomized controlled trials more rigorous and allowed for a more accurate estimate of the treatment effect. This meta-analysis once again displays evidence that SMT is effective in treatment of chronic LBP.