

What does the research say?



## Research suggests:

- Inflammatory mediators have been found to be elevated in individuals with neck pain.
- Symptoms linked to high levels of inflammation may be improved with chiropractic care.
- The production of inflammatory mediators may be modulated in response to chiropractic care.
- Chiropractic adjustments delivered at different forces may influence the inflammatory mediators differently.

## Further reading in this area:

- 1. Teodorczyk-Injeyan, J. A., Triano, J. J., McGregor, M., Woodhouse, L., & H. Stephen Injeyan. 2011. Elevated Production of Inflammatory Mediators Including Nociceptive Chemokines in Patients With Neck Pain: A Cross-Sectional Evaluation. J Manipulative and Physiol Ther, 34(8), 498-505.
- 2. Pero, J. & Jockers, D. 2015. Improvement in Cervical Curvature and Health Outcomes in a Patient with Rheumatoid Arthritis Undergoing Chiropractic Care to Reduce Vertebral Subluxation. Ann Vert Sublux Res, 2015;77-81
- 3. Teodorczyk-Injeyan, J. A., Triano, J. J., Gringmuth, R., DeGraauw, C., Chow, A., & H. Stephen Injeyan. 2021. Effects of spinal manipulative therapy on inflammatory mediators in patients with non-specific low back pain: a non-randomized controlled clinical trial. Chiropr & Manual Ther, 29(1).
- 4. Felipe C.K. Duarte, Funabashi, M., Starmer, D., Partata, W. A., Daniel W.D. West, Kumbhare, D. A., & Injeyan, S. (2022). Effects of Distinct Force Magnitude of Spinal Manipulative Therapy on Blood Biomarkers of Inflammation: A Proof of Principle Study in Healthy Young Adults. J Manipulative and Physiol Thera, 45(1), 20-32.