

CranioSacral Therapy; Exploring the Evidence
Bibliography
Beyond the Dura 2019
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Biopsychosocial Model

- American Physical Therapy Association. Beyond Opioids: How Physical Therapy Can Transform Pain Management to Improve Health. An American Physical Therapy Association White Paper. Retrieved from:
http://www.apta.org/uploadedFiles/APTAorg/Advocacy/Federal/Legislative_Issues/Opioid/APTAOpioidWhitePaper.pdf. June 1, 2018. Accessed on March 3, 2019.
- Borrell-Carrió, F, Suchman AJ, Epstein RM. The biopsychosocial model 25 years later: principles, practice, and scientific inquiry. *Ann Fam Med*. 2004;2(6):576-82.
- Boston P, Bruce A. Palliative Care Nursing, Technology, and Therapeutic Presence: are they reconcilable? *J Palliat Care*. 2014;30:4:291-293.
- Cerritelli F, Chiacchiaretta P, Gambi F, Ferretti A. Effect of continuous touch on brain functional connectivity is modified by the operator's tactile attention. *Front Hum Neuroscience*. July 2017;11:368.
- Cohen J, Brown CS. *John Romano and George Engel: Their Lives and Work*. Rochester, NY: University of Rochester Press; 2010.
- Engel, G. The need for a new medical model: a challenge for biomedicine. *Science*. 1977;196(4286):129-136.
- Hall AM, et al. The influence of the therapist-patient relationship on treatment outcome: a systematic review. *Phys Ther*: 2019;90(8):1099-1110.
- InformedHealth.org [internet] 'The history of evidence-based medicine'. Updated September 8, 2016. Retrieved March 3, 2019.
- Johnson, H. Maintaining the Clinician's Therapeutic Presence. In: Psychosocial Elements of Physical Therapy. Thorofare, NJ: Slack Incorporated; 2018: 1-10.
- Jordan AG, Schneider MJ, Evans AW, King J, Eubanks JE. The biopsychosocial model and chiropractic: a commentary with recommendations for the chiropractic profession. *Chiropr Man Therap* 2017;25:16.

Lindau, ST, Laumann EO, Levinson W, Waite LJ. Synthesis of scientific disciplines in pursuit of health: the interactive biopsychosocial model. *Perspec Biol Med.* 2003;469 (3Suppl):S74-S86.

Menage TY. Reclaiming compassion as a core value in occupational therapy. *Br J Occup Ther.* 2016;79(1):3-4.

Salam M. (2017) 'The Opioid Epidemic: A crisis years in the making', *The New York Times*, 26 October.

Scurlock-Durana S. Full Body Presence. Novato, CA: New World Library; 2010.

Scurlock S. Interview. March 2019.

Tensegrity Model: manhattantoy.com Skwish – A Tensegrity Toy Invention \$13.60 to \$17.00 USD.

Upledger JE. Study Guides CST 1,2, SER 1,2. Upledger Institute.

Metrics

Tsai TC, Jha AK, Gawande AA, Huckman RS et al. Hospital board and management practices are strongly related to hospital performance on clinical quality metrics. *Health Aff (Millwood)*: 2015;34(8):1304-11

Genomic Expression

Bordoni B, Simonelli M. The awareness of the fascial system. *Cureus.* 2018 Oct 1;10(10):e3397.

Charras G, Yap AS. Tensile forces and mechanotransduction at cell-cell junctions. *Curr Bio.* 2018 Apr 23;28(8):R445-R457.

Chiquet M, Gelman L, Lutz R, Maier S. From mechanotransduction to extracellular matrix gene expression in fibroblasts. *Biochimica et Biophysica acta.* 2009;1793(5):911-920.

Ingber D. Tensegrity: the architectural basis of cellular mechanotransduction, *Annu Rev Physiol.* 1997;59:575-99.

Michopoulos V, Rothbaum AO, Jovanovic T, Almli LM, et al. Association of CRP genetic variation and CRP level with elevated PTSD symptoms and physiological responses in a civilian population with high levels of trauma. *Am J Psychiatry*. 2015; 172(4):353-62.

Miller MW, Maniates H, Wolf EJ, Logue MW, et al. CRP polymorphisms and DNA methylation of the AIM gene influence associations between trauma exposure, PTSD, and C-reactive protein. *Brain Behav Immun* 2018;(67):194-202.

Myers TW. Anatomy Trains. New York, NY. Churchill Livingstone; 2002. 41-49.

Tajick A, Zhang Y, Wei F, Sun J, Jia Q, Zhou W, et al. Transcription upregulation via force-induced direct stretching of chromatin. *Nat mater*. 2016;15(12):1287-1296.

Sadeh, N, Spieberg JM, Logue MW, Wolf EJ, et al. SKA methylation is associated with decreased prefrontal cortical thickness and greater PTSD severity among trauma-exposed veterans. *Mol Psychiatry*. 2016;21(3):367-63.

Shmoop.com. 'DNA Packaging'. Retrieved March 20, 2019.

Tajick A, Zhang Y, Wei F, Sun J, Jia Q, Zhou W, et al. Transcription upregulation via force-induced direct stretching of chromatin. *Nat mater*. 2016;15(12):1287-1296.

Tensegrity. In Wikipedia. Retrieved March 25, 2019 from en.wikipedia.org/wiki/Tensegrity.

University of Illinois at Urbana-Champaign. "Mechanical force triggers gene expression by stretching chromatin." *Science Daily*. 26 August 2016. Retrieved March 20, 2019.

Fascia

Adstrum S, Hedley G, Schleip R, Stecco C, Yucesoy CA. *J Bodyw Mov Ther*. 2017 Jan;21(1):173-177.

Barral JP, Crobier A. Manual Therapy for the Peripheral Nerves. New York NY Churchill Livingstone Elsevier; 2007.

Berrueta L, Bergholz J, Munoz D, Muskaj I, Badger GJ, Shukla A, Kim HJ, Zhaao JJ, Langevin HM. Stretching Reduces Tumor Growth in a Mouse Breast Cancer Model. *Sci Rep*. 2018;8(1):7864.

Erratum in: *Sci Rep.* 2018 Nov 16;8(1):17226.

Bordoni B, Marelli F, Morabito B, Sacconi B. The indeterminable resilience of the fascial system. *J Integr Med.* 2017;15(5):337-343.

Chaudhry H, Schleip R, Ji Z, Bukiet B, et al. three-dimensional mathematical model for deformation of human Fasciae in manual therapy. *J Am Osteopath Assoc.* 2008;108(8):379-90.

Findley TW. Fascia research from a clinician/scientist's perspective. *Int J Ther Massage Bodywork.* 2011;4(4):1-6.

Hall, M, Smith JC. The effects of an acute bout of foam rolling on hip range of motion on different tissues. *Int J Sports Phys Ther.* 2019;13(4):652-660.

Langevin HM, Bouffard NA, Fox JR, Palmer BM, et al. Fibroblast cytoskeletal remodeling contributes to connective tissue tension. *J Cell Physiol.* May 2011; 226(5):1166-1175.

Lesondak D. *Fascia What it is and why it matters.* East Lothian, Scotland: Handspring; 2018.

Schleip R. Fascial Plasticity – a new neurobiological explanation: part 1. *J Bodyw Move Ther.* 2003; 7(1):11-19.

Schleip R. Fascial Plasticity – a new neurobiological explanation: part 2. *J Bodyw Move Ther.* 2003;7(2):104-116.

Schleip R. Fascial Tonicity: from tissue contractures to hypermobility. *Proceedings from the fascia research congress.* 2007. Cambridge, MA.

Schleip R. 'Fascinating Fascia: Latest News. (lecture by Dr. to European Rolfers}. Youtube.com. Posted by Sue Miller 2018.

Stecco, C, Macchi V, Porzionatio A, Duparc F, De Caro R. The fascia: the forgotten structure. *Ital J Anat Embryol.* 2011;116(3);127-38.

Stecco L, Stecco C. *Fascial Manipulation Practical Part.* Padova, Italy: Piccini; 2009: 3-38.

Stecco, L. *Fascial Manipulation for Musculoskeletal Pain.* Padova, Italy: Piccini; 2004: 11-31, 154-155.

Stecco L, Stecco C. Fascial Manipulation Practical Part. Padova, Italy: Piccini: 2009: 3-16.

Vigotsky AD, Bruhns RP. The Role of Descending Modulation in Manual Therapy and its analgesic implications: a narrative review. *Pain Res Treat*. 2015;2015:292805.

Erratum in: *Pain Res Treat*. 2017:1535473.

Wilke J, Schleip R, Klingler W, Stecco C. The lumbodorsal fascia as a potential source of low back pain: a narrative review. *Biomed Res Int*. 2017:5349620

Wilke J, Schleip R, Yucesoy CA, Banzer W. Not merely a protective packing organ? A review of fascia and its force transmission capacity. *J Appl Physiol*. 2018; 1:124(1):234-244.

Cutaneous Nerves

Barral JP, Crobier A. Manual Therapy for the Peripheral Nerves. New York NY Churchill Livingstone Elsevier; 2007: 151-153.

Brazzini B, Ghersetich I, Hercogova J, Lotti T. The neuro-immuno-cutaneous-endocrine network: relationship between mind and skin. *Dermatol Ther*. 2003;16: 123-131.

Dycem: Resources Amazon.com, ebay.com, Walmart.com, ncmedical.com. \$23.79+USD depending on length and width of roll. Cut into slightly larger than your hand size, Dycem can eliminate sliding on the skin and increase the effectiveness of tractioning the cutaneous nerves during fascial glide. This was not covered during the presentation secondary to time constraints.

Erickson J. 'The Elegance of Dermoneuromodulation Touch rooted in modern neuroscience.' *Massage and Body Work* magazine. Associated Bodywork and Massage Professionals: May/June 2013:88-97.

Jacobs D. Dermo Neuro Modulating. Victoria, BC CA: Tellwell; 2016: v-vi, 3-13:203-283.

Stecco, C, Macchi V, Porzionatio A, Duparc F, De Caro R. The fascia: the forgotten structure. *Ital J Anat Embryol*. 2011;116(3):127-38.

Vigotsky AD, Bruhns RP. The Role of Descending Modulation in Manual Therapy and its analgesic implications: a narrative review. *Pain Res Treat.* 2015;2015:292805.

Wetzler G. Visceral Manipulation Curriculum: Listening Techniques 2 (LT2). Day 1: Personal Notes.

Technology

Duff J. The usefulness of quantitative EEG (qEEG) and neurotherapy in the assessment and treatment of post-concussion syndrome. *Clin EEG Neurosci.* 2004;35(4):198-209.

Duke SciPol, "Immediate Post-Concussion Assessment and Cognitive Testing ImPACT" available at: <http://scipol.duke.edu/content/immediate-post-concussion-assessment-and> cognitive-testing-impact (6/23/2017). Retrieved March 30, 2019.

Haneef Z, Levin HS, Frost JD Jr., Mizrahi EM. Electroencephalography and quantitative electroencephalography in mild traumatic brain injury. *J Neurotrauma.* 2013;30:653-656.

QEEG Cost \$1400.00 USD pre/post. victorzelek.com>staff. Retrieved April 2, 2019.

Schmitt S, Dichter MA. Electrophysiologic recordings in traumatic brain injury. *Handb Clin Neurol.* 2015;319-339.

SPECT Scan Cost \$3950.00 USD pre/post @Amen Clinics. Quora.com. Retrieved March 29, 2019. Price not disclosed on multiple websites.

Suleiman A, Lithgow B, Dastghieb, Mansouri B, Moussavi Z. Quantitative measurement of post-concussion syndrome using electrovestibulography. *Sci Rep.* 2017;27;7(1):16371:198-209.

Yang, S. Flores B, Magal R, Harris K, Gross J, et al. Diagnostic accuracy of tablet-based software for the detection of concussion. 2017: *PLoS ONE*:12(7):e0179352. Retrieved March 30, 2019.

CST Literature

Andrzejewska M, Sutkowska E, Kuciel N. The rehabilitation of a child with a Sotos syndrome: case report. *Wiad Lek.* 2018;71(9):1849-1853.

Haller H, Lauche R, Cramer H, Rampp T, Saha FJ, et al. Craniosacral Therapy for the treatment of chronic Neck pain: a randomized sham-controlled trial. *Clin J Pain.* 2016;32(5):441-9.

King HH. Craniosacral therapy shown beneficial in management of chronic neck pain. *J Am Osteopath Assoc.* 2016; 116(7):486-487.

Kratz SV, Kerr J, Porter L. The use of CranioSacral therapy for autism spectrum disorders: benefits from the viewpoint of parents, clients, and therapists. *J Bodyw Mov Ther.* Jan 2017;21(1):19-29.

Liddle SD, Pennick V. Interventions for preventing and treating low back and pelvic pain during pregnancy. *Cochrane Database Syst Rev.* 2015 30;(9):CD001139.

Quraishi K. Feeding in the NICU: a perspective from a craniosacral therapist. *Neonatal Netw.* 2016;35(2):105-7.

Wetzler G, Roland M, Fryer-Dietz S, Dettman-Ahern D. CranioSacral therapy and visceral manipulation: A new treatment intervention for concussion recovery. *Med Acupunct.* 2017;1;29(4):239-248.

Osteopathic Manipulative Treatment/CST

Bordoni B, Marelli, F, Morabito B, Sacconi B, Severino P. Post-sternotomy pain syndrome following cardiac surgery: case report. *J Pain Res.* 2017;10:1163-1169.

Castillo I, Wolf K, Rakowsky A. Concussions and osteopathic manipulative treatment: an adolescent case presentation. *J Am Osteopath Assoc.* 2016;116(3):178-181.

Guernsey DT 3rd, Leder A, Yao S. Resolution of concussion symptoms after osteopathic manipulative treatment: a case report. *J Am Osteopath Assoc* Mar 2016;116(3):e13-17.

Patel KG, Sabini RC. Safety of osteopathic cranial manipulative medicine as adjunct to conventional postconcussion symptom management: a pilot study. *J Am Osteopath Assoc.* Jun 2018;118(6):403-409.

Racca V, Bordoni B, Castiglioni P, Modica M, Ferratini M. Osteopathic manipulative treatment Improves heart surgery outcomes: a randomized controlled trial. *Ann Thorac Surg.* July 2017;104(1):145-152.

Transgenerational Epigenetic Inheritance

Dias BG, Ressler KJ. Parental olfactory experience influences behavior and neural structure in subsequent generations. *Nat Neurosci.* Jan 2014;17(1):89-96.

Hampton D. 'How Trauma Can Damage the Brain for Generations and Can be Reversed'. January 18, 2018. thebestbrainpossible.com/epigenetics-trauma-brain-reversed-mental-health. Retrieved March 31, 2019.

Yehuda R, Daskalakis NP, Bierer LM, Bader HN, et al. Holocaust exposure induced intergenerational effects on FKBP5 Methylation. *Bio Psychiatry.* Sep 2016;80(5):372-380.