

References used in the Foundations in Myofascial Release Seminar for Neck, Voice, and Swallowing Disorders

1. Angsuwarangsee T, Morrison M (2002) Extrinsic laryngeal muscular tension in patients with voice disorders. *Journal of Voice* : Official Journal of the Voice Foundation 16(3):333-343 DOI: 10.1016/S0892-1997(02)00105-4
 2. Asher, Benjamin (2013). Complementary and Integrative Treatments: The Voice. *Otolaryngologic Clinics of North America*, Volume 46, Issue 3, June 2013, Pages 437–445. <http://dx.doi.org/10.1016/j.otc.2013.02.008>
“Myofascial release and laryngeal massage are effective in improving vocal function and helping minimize throat pain.”
 3. Baggi, F., Santoro, L., Grosso, E., Zanetti, C., Boacossa, E., Sandrin, F., Simoncini, M. C. (2014). Motor and functional recovery after neck dissection: comparison of two early physical rehabilitation programmes. *Acta Otorhinolaryngologica Italica*, 34(4), 230–240.
 4. Bittar, C., Nascimento, O. (2014). Placebo and nocebo effects in the neurological practice. *Arq Neuropsiquiatr* 2015;73(1):58-63 . DOI: 10.1590/0004-282X20140180
 5. Bordoni, B, Zanier, E. (2013) Anatomic connections of the diaphragm: influence of respiration on the body system. *Journal of Multidisciplinary Healthcare* 2013:6 281–291. <http://dx.doi.org/10.2147/JMDH.S45443> (Full text: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3731110/>)
 6. Bordoni, B., Marelli, F., & Morabito, B. (2016). The tongue after whiplash: case report and osteopathic treatment. *International Medical Case Reports Journal*, 9, 179–182. <http://doi.org/10.2147/IMCRJ.S111147>
(Speaks to the utilization of myofascial release to the tongue in post-whiplash injuries) “The osteopathic (myofascial release) techniques led to a disappearance of pain and the complete recovery of the normal functions of the tongue, such as swallowing and mouth opening.”
 7. Bruno B, Fabiola M, Giovanni B (2016). A review of analgesic and emotive breathing: a multidisciplinary approach. *Journal of Multidisciplinary Healthcare* 2016:9 97–102 <http://dx.doi.org/10.2147/JMDH.S101208>
 8. Burks, M., Bailey, S., and Jefferson, Manual Therapy May Improve Swallowing Outcomes in Post-Treatment Head and Neck Cancer Patients. Poster presentation at 2014 Triological Society. <http://www.triomeetingposters.org/wp-content/uploads/2014/05/C100.pdf>
“The primary objective of this small case series was to demonstrate the potential application of myofascial release in the treatment of dysphagia in HNC survivors following definitive therapy.”

“Conclusion: Dysphagia is a common post-treatment sequela in HNC patients. Our descriptive observational data preliminarily suggests that the novel approach of manual therapy may have role for the treatment of HNC patient dysphagia. Future study will further investigate the effects, the long-term benefits, and ideal regimen of myofascial release in this patient population.”
 9. Calixtre, L. B., Moreira, R. F. C., Franchini, G. H., Albuquerque-Sendin, F., Oliveira, A.B. Manual therapy for the management of pain and limited range of motion in subjects with signs and symptoms of temporomandibular disorder: a systematic review of randomised controlled trials (2015). *Journal of Oral Rehabilitation*, 42(11) 847–861. DOI: 10.1111/joor.12321.
<http://onlinelibrary.wiley.com/doi/10.1111/joor.12321/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=>
“Myofascial release and massage techniques applied on the masticatory muscles are more effective than control (low to moderate evidence) but as effective as toxin botulinum injections (moderate evidence).”
 10. Chaitow, L., Lederman, E. (2011). Is a postural-structural-biomechanical model, within manual therapies, viable?: A JBMT debate on: The fall of the postural-structural- biomechanical model in manual and physical therapies: Exemplified by lower back pain. *Journal of Bodywork & Movement Therapies*15, 130-152. doi:10.1016/j.jbmt.2011.01.004
 11. Craig, J., Tomlinson, C., Stevens, K., Kotagal, K., Fornadley, J., Jacobson, B., Garrett, C.G., Francis, D.O. Combining voice therapy and physical therapy: A novel approach to treating muscle tension dysphonia. *J. of Communication Disorders*. 58, p. 169-178. doi:10.1016/j.jcomdis.2015.05.001.
<http://www.sciencedirect.com/science/article/pii/S0021992415000325>
“Manual physical therapy techniques consist of a combination of joint mobilizations, passive range of motion, contract-relax stretches, and myofascial release.” “This preliminary study suggests that physical therapy techniques may have a role in the treatment of a subset of MTD patients.”
- (Note: interventions suggested in this article required significant session numbers to achieve effects. I do not feel it necessary to provide so many sessions before change is noted.)**
12. Diwan, S. J., Bansal, A. B., Chovatiya, H., Kotak, D. & Vyas, N. (2014) Effect of anterior chest wall myofascial release on thoracic expansion in children with spastic cerebral palsy. *International Journal of Contemporary Pediatrics*, 1 (2), 94-99. doi:10.5455/2349-3291.ijcp20140802
<http://www.scopemed.org/?jft=119&ft=119-1408343476>
“Myofascial Release (MFR) is a form of soft tissue therapy used to treat somatic dysfunction and accompanying pain and restriction of motion. Hence some intervention is required to improve chest expansion. So this study was conducted in an effort to improve the chest expansion using MFR techniques to the respiratory muscles.” “Conclusion: The result shows that the chest expansion increased significantly at all the three levels. The expansion improved maximally at the nipple level.”
 13. Dunphy, C. (2013). Critical Review: The Hands On Approach: Perilaryngeal Manual Therapies in the Treatment of Muscle Tension Dysphonia. https://www.uwo.ca/fhs/lwm/ebp/reviews/2012-13/Dunphy_C.pdf
 14. Ercole B, Antonio S, Julie Ann D, Stecco C. (2010). How Much Time is Required to Modify a Fascial Fibrosis? *J Bodyw Mov Ther*. 14(4):318-25. doi: 10.1016/j.jbmt.2010.04.006.
 15. Fischera, M, Gutenbrunnera, G, Ptok, M. (2009). Intensified voice therapy: a new model for the rehabilitation of patients suffering from functional dysphonias. *Int J Rehab Research*, June, 2009, 348-355. DOI: 10.1097/MRR.0b013e32832c0d8f
 16. Gugliotti, M. (2011) The Use of Mobilization, Muscle Energy Technique, and Soft Tissue Mobilization Following a Modified Radical Neck Dissection of a Patient with Head and Neck Cancer. "Rehabilitation Oncology 29(1); . 2011. Retrieved April 01, 2016 from HighBeam Research: <https://www.highbeam.com/doc/1P3-2342376511.html>
“Manual therapy techniques such as joint mobilization, muscle energy technique, and soft tissue mobilization were safely and effectively applied to this patient with head and neck cancer.” “Soft tissue mobilization was chosen due to its reported ability to reduce pain and increase tissue extensibility.”
 17. Hojan, K., Milecki, P. Opportunities for rehabilitation of patients with radiation fibrosis syndrome (2014). *Reports on Oncology and Radiotherapy*, 19(1), 1-6. DOI: <http://dx.doi.org/10.1016/j.rpor.2013.07.007> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4056465/pdf/main.pdf>
[http://www.oncology-and-radiotherapy.com/marlin-prod.literatumonline.com/article/S1507-1367\(13\)01007-9/pdf](http://www.oncology-and-radiotherapy.com/marlin-prod.literatumonline.com/article/S1507-1367(13)01007-9/pdf)

“RFS (radiation fibrosis syndrome) may cause deformation and function disorders of the fascial system that exerts a crucial influence on the mobility of joints, abdominal and lumbar tissues, and consequently, of chest walls. The fascial techniques consisting in expanding the skin, subcutaneous connective tissue and deep fascia make it possible to restore normal shifting of particular layers of soft tissues. The myofascial relaxation was found to influence the general homeostasis thanks to the loosening of tense soft tissues enabling to reduce pain and improve circulation in the region with RFS.”

18. Holzman Wepler, C. and Magnusson, S. P. (2010) Increasing Muscle Extensibility: A Matter of Increasing Length or Modifying Sensation? *Phys Ther.* 90:438-449. doi: 10.2522/ptj.20090012

19. Howard, J.M., Howard, Howard, J.M., & M., J. (2014). Postural and Spinal Disorders: Do They Affect the Normal Swallow? http://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1088&context=gs_rp

20. Krisciunas, G.P., Golan, H., Marinko, L.N., Pearson, W., Jalisi, S. and Langmore, S.E. (2016), A novel manual therapy programme during radiation therapy for head and neck cancer – our clinical experience with five patients. *Clinical Otolaryngology.* doi: 10.1111/coa.12535 <http://onlinelibrary.wiley.com/doi/10.1111/coa.12535/abstract>

“SLP Treatment Protocol Overview:

- 1. MyoFascial Release on muscles of mastication.***
- 2. Lateral tongue stretch pulling the hyoid down and push to contralateral side.***
- 3. Geniohyoid and posterior mylohyoid (from body of hyoid laterally to mandible) are especially targeted.***

In contrast to concerns that manual therapy would be painful/intolerable during radiation therapy, all patients felt that manual therapy lessened their throat pain.”

“Collectively, this suggests that clinicians properly trained in manual therapy techniques, who also have significant experience with head and neck cancer patients, can deliver such treatment during radiation therapy.”

“Overall, this clinical experience demonstrated that manual therapy during radiation therapy can be tolerated by patients, and that it attenuated generalized neck/throat pain during the course of each treatment session.”

21. Lemley, D. (2014). . Master’s Thesis. OCLC #907648851

“Findings from this investigation suggest that myofascial release reduces muscle activity resulting in decreased tension noted on videostroboscopy, EMG measures, and perceptual ratings of the participant’s voice. Results from this case study indicate that MFR is a viable treatment modality for voice clinicians when treating MTD”

“Based on the results of this study, it can be concluded that MFR improved MTD symptoms in this case study.”

22. Lewit, K., Olsanska, S. (2004). Clinical importance of active scars: abnormal scars as a cause of myofascial pain. *J Manipulative Physiol Ther* 27(6), 399-402. <http://www.eugenept.com/pdfs/clinicaimprtnce.pdf>

23. Mancinia, F., Beaumont, A., Huc, L., Haggardb, P., Iannetta, G. (2015). Touch inhibits subcortical and cortical nociceptive responses. *www.painjournalonline.com*, 10(156); 1936-1944. <http://dx.doi.org/10.1097/j.pain.0000000000000253>

24. Marszalek, S. (2008). Estimation of influence of myofascial release techniques on esophageal pressure in patients after total laryngectomy. *European Archives of Oto-Rhino-Laryngology*, 266(8), 1305-1308. Doi: 10.1007/s00405-008-0861-z <http://link.springer.com/article/10.1007%2Fs00405-008-0861-z?LI=true#page-1>

“The application of myofascial manual techniques decreases esophageal pressure, thus allowing patients to learn esophagus speech at a faster pace.”

25. Marszalek, S., Niebudek-Bogusz, E., Woznicka, E., Malinska, J., Golusinski, W., & Sliwinska-Kowalska, M. (2012). Assessment of the influence of osteopathic myofascial techniques on normalization of the vocal tract functions in patients with occupational dysphonia. *International Journal of Occupational Medicine and Environmental Health*, 25(3), 225-235. doi: 10.2478/S13382-012-0041-7 (osteopathic myofascial rehabilitation)

“The voice therapy, scheduled and supervised by a laryngologist-phoniatrician and conducted by a speech-language pathologist, was supplemented with osteopathic myofascial rehabilitation of the larynx.”

“Conclusion: The use of osteopathic (myofascial) therapy helps significantly improve the functions of the vocal tract in patients with occupational dysphonia.”

26. Marszalek S., Pienkowski P., Golusinski P., Pazdrowski J., Szewczyk M., Luczewski L., Szybiak B., Golusinski W. (2015). Evaluation of manual myofascial release techniques in head and neck cancer patients with trismus following extensive surgical treatment. http://www.fasciacongress.org/2015/Abstracts/95_Marszalek.pdf

“Conclusions: The use of myofascial release techniques in patients with disorders of the masticatory apparatus significantly increased the range of mandible opening.”

27. Matheson, L., Hirani, S., Epstein, R., Baken, R., Wood, G., & Rubin, J. (2009). Laryngeal manual therapy: a preliminary study to examine its treatment effects in the management of muscle tension dysphonia. *J Voice*, 23(3):353-66. Epub 2007 Nov 26. DOI: 10.1016/j.jvoice.2007.10.002

28. Mathieson, L. (2011) The evidence for laryngeal manual therapies in the treatment of muscle tension dysphonia. *Curr Opin Otolaryngol Head Neck Surg.* 2011 Jun;19(3):171-6. doi: 10.1097/MOO.0b013e3283448f6c.

29. Pittman, E (2007). A History of Manipulative Therapy. *The Journal of Manual & Manipulative Therapy* Vol. 15 No. 3 (2007), 165–174.

30. Lau, A (2010). Effects of Massage Therapy on Vocal Tract Discomfort Associated with Muscle Tension Dysphonia: A Case Study. *Clinical Case Report Competition West Coast College of Massage Therapy: A Preliminary Study to Examine its Treatment Effects in the Management of Muscle Tension Dysphonia.* *Journal of Voice* , 353-366. DOI: 10.1016/j.jvoice.2007.10.002

“Thus, the removal of myofascial trigger points would reduce cervical tension and also allow for better breath support in phonation.”

31. Roy N, Leeper HA. (1993) Effect of the manual laryngeal musculoskeletal tension reduction technique as a treatment for functional voice disorders: perceptual and acoustic measures. *J Voice* 1993;7:242–9.

32. Roy, N., Bless, D., Heisey, D., and Ford, C. (1997). Manual Circumlaryngeal Therapy for Functional Dysphonia: An Evaluation of Short- and Long-Term Treatment Outcomes. *Journal of Voice*, 11(3); 321-331. DOI: 10.1016/S0892-1997(97)80011-2

“Briefly, this treatment involved kneading the extralaryngeal musculature in an anterior-posterior direction at specific locations while exerting a downward pull on the larynx. Target voice stimuli were presented concurrently while changes in voice quality were noted. The assessment and treatment protocol were completed in a single session that ranged in duration from 50 minutes to 3 hours.”

“(iv) Manual circumlaryngeal therapy (the manual laryngeal musculoskeletal tension reduction technique) was undertaken according to the description of Aronson (3): (a) the hyoid bone was encircled with the thumb and index finger, which were worked posteriorly until the tips of

the major horns were felt; (b) light pressure was exerted with the fingers in a circular motion over the tips of the hyoid bone; (c) the procedure was repeated beginning from the thyroid notch and working posteriorly; (d) the posterior borders of the thyroid cartilage just medial to the sternocleidomastoid muscles were located and the procedure was repeated; (e) with the fingers over the superior borders of the thyroid cartilage, the larynx was worked downward, and moved laterally at times;"

(Roy describes techniques and methodologies that are nearly identical to many aspects of myofascial release in the neck region. The difference appears to be the titled given the work. This is the case in many forms of manual therapy, massage, and myofascial release in the physical therapy/massage therapy communities.)

33. Roy, N. (2008). Assessment and treatment of musculoskeletal tension in hyperfunctional voice disorders. *Int J of Speech Lang Pathol.*, 10(4): 195-209. DOI: 10.1080/17549500701885577
34. Rushton A, Rivett D, Carlesso L, Flynn T, Hing W, Kerry R. (2012). International Framework for Examination of the Cervical Region for potential of Cervical Arterial Dysfunction prior to Orthopaedic Manual Therapy Intervention. www.ifompt.org
35. Schneider, S., Sataloff, R. (2007) Voice Therapy for the Professional Voice, *Otolaryngol Clin N Am* 40 (2007) 1133–1149. doi:10.1016/j.otc.2007.05.013
36. Směkal, D., Velebová, K., Hanáková, D., Lepšíková, M., The effectiveness of specific physiotherapy in the treatment of temporomandibular disorders. (2008) *Acta Universitatis Palackianae Olomucensis. Gymnica* . 2008, Vol. 38 Issue 2, p 45-53. <http://www.gymnica.upol.cz/pdfs/gym/2008/02/05.pdf>
"Utilizing a physiotherapy protocol that included myofascial release, it was found that after treatment (t)he range of mouth opening increased significantly (from 37.3 mm to 41.3 mm, p < 0.001).. The finding shows that this state was maintained two months later... mouth opening (p < 0.003). Pain was ameliorated, the intensity of sounds reduced, and the range of movement significantly improved after specific physiotherapy."
37. Stepp, C, Heaton, J., Braden, M., Jetté, M., Stadelman-Cohen, T., and Hillman, R. (2012). Comparison of neck tension palpation rating systems with surface electromyographic and acoustic measures in vocal hyperfunction. *J Voice*. 2011 January ; 25(1): 67–75. doi:10.1016/j.jvoice.2009.08.001.
38. Such, G. Manual care of the hyoid complex (2016) *Topics in Clinical Chiropractic* Sept. 2002: 54+. Academic OneFile. Web. 8 Sept. 2016.
39. Tacani, R.E., Machado, A.F.P., Goes, J.C.G.S., Marx, A.G., Franceschini, J.P. & Tacani, P.M., (2014). Physiotherapy on the Complications of Head and Neck Cancer: Retrospective Study. *International Journal of Head & Neck Surgery*, 5(3), p.112. DOI: 10.5005/jp-journals-10001-1195
<http://www.jaypeejournals.com/eJournals/ShowText.aspx?ID=7008&Type=FREE&TYP=TOP&IN=-/eJournals/images/JPLOGO.gif&IID=526&isPDF=YES>
40. Tacani, P.M, Franceschini, J.P., Tacani, R.E., Machado, A.F., Montezello, D., Góes, J.C., Marx, A. (2016) Retrospective study of the physical therapy modalities applied in head and neck lymphedema treatment. *Head Neck*. 38(2):301-8. doi: 10.1002/hed.23899. Epub 2015 Jun 16.
<http://www.ncbi.nlm.nih.gov/pubmed/25332118>
41. Taylor AJ, Kerry R, A 'system based' approach to risk assessment of the cervical spine prior to manual therapy, *Int J Osteopath Med* (2010), doi:10.1016/j.ijosm.2010.05.001
42. Threlkeld, J. (1992). The effects of manual therapy on connective tissue. *Physical Therapy*, 72(12); 893-901.
<http://ptjournal.apta.org/content/ptjournal/72/12/893.full.pdf>
43. Tomlinson C, Coon K, MacKenzie A, Archer K. (2013) Improving outcomes in patients with muscle tension dysphonia: A myofascial release and exercise program. *Journal of Orthopaedic & Sports Physical Therapy*, 43 (1), A1–A15 DOI:10.2519/jospt.2013.43.1.A1
<http://www.jospt.org/doi/pdf/10.2519/jospt.2013.43.1.A64>
- "Conclusion: Results demonstrate a 10-session MFR+Ex (myofascial release plus exercise) program is feasible in patients with MTD. Furthermore, preliminary findings suggest that the MFR+Ex intervention improves patient outcomes related to pain, functional status, voice-specific QOL, and ROM."***
- "Clinical Relevance: Preliminary evidence suggests that physical therapists can implement the MFR skills necessary to effect improvements in outcomes for patients with MTD. Recommendation for expanding physical therapy practice includes patient referral from an outpatient voice center. Physical therapists interested in improving outcomes in patients with MTD should consider incorporating MFR techniques into standard practice."***
44. Tomlinson, C., Archer, K (2015). Manual Therapy and Exercise to Improve Outcomes in Patients With Muscle Tension Dysphonia: A Case Series. *Physical Therapy* 95 (1) 117-128; DOI: 10.2522/ptj.20130547
45. Van Lierke, K. M., De Ley, S., Clement, G., De Boldt, M., & Van Cauwenberge, P. (2004). Outcome of laryngeal manual therapy in four Dutch adults with persistent moderate-to-severe vocal hyper function: A pilot study. *Journal of Voice*, 18(4), 467-474, DOI: [10.1016/j.jvoice.2004.02.003](https://doi.org/10.1016/j.jvoice.2004.02.003)
46. Warpenburg, M. J. (2014). Deep Friction Massage in Treatment of Radiation-induced Fibrosis: Rehabilitative Care for Breast Cancer Survivors. *Integrative Medicine: A Clinician's Journal*, 13(5), 32–36.
47. Bourgeois JF, Gourgou S, Kramer A, Lagarde JM, Guillot B. (2008). A randomize, prospective study using the LPG technique in treating radiation-induced skin fibrosis: clinical and profilometric analysis. *Skin Res Technol*, 14(1), 71-6. DOI: [10.1111/j.1600-0846.2007.00263.x](https://doi.org/10.1111/j.1600-0846.2007.00263.x)
48. (Low level evidence) Heo, S. Y., & Kim, K. M. (2015). Immediate effects of Kinesio Taping on the movement of the hyoid bone and epiglottis during swallowing by stroke patients with dysphagia. *Journal of Physical Therapy Science*, 27(11), 3355–3357. <http://doi.org/10.1589/jpts.27.3355>
49. Borgini E, Stecco A, Day J, Stecco C. (2010). How much time is required to modify a fascial fibrosis? *Journal of Bodywork & Movement Therapies* 14, 318-325. doi:10.1016/j.jbmt.2010.04.006
50. da Silva, et al. (2013). Increase of lower esophageal sphincter pressure after osteopathic intervention on the diaphragm in patients with gastroesophageal reflux. *Dis Esophagus*. 26(5), 451-6, doi: 10.1111/j.1442-2050.2012.01372x
51. Braga, D, et al. 2016. Manual therapy in diaphragm muscle: effect on respiratory muscle strength and chest mobility. *Man Ther, Postur, & Rehab J*. 14, 302. doi: <http://dx.doi.org/10.17784/mtprehabjournal.2016.14.302>
52. Nee, R., Butler, D. (2006). Management of peripheral neuropathic pain: Integrating neurobiology, neurodynamics, and clinical evidence. *Phys Ther in Sport*, 7(1) 36-49. DOI: <http://dx.doi.org/10.1016/j.ptsp.2005.10.002>
53. Nee, R., Gwendolen, A.J., Vicenzino, B., Coppielters, M. (2012). The validity of upper-limb neurodynamic tests for detecting peripheral neuropathic pain. *J Orthop Sports Phys Ther*. 2012 May;42(5):413-24. doi: 10.2519/jospt.2012.3988
Updated 02/05/17

54. Cruz-Montecinos, C et al. (2017) The immediate effect of soft tissue manual therapy intervention on lung function in severe chronic obstructive pulmonary disease. *Int J of COPD*, 2017;12 691-696. doi <http://dx.doi.org/10.2147/COPD.S127742>
“A single application of an STMP appears to have the potential to produce immediate clinically meaningful improvements in lung function in patients with severe and very severe COPD.”
55. Baisakhiya, Nitish, et.al. (2017). Study the effect of osteopathic manipulation treatment in globus pharyngeus patients. *Int J Otorhinolaryngol Head Neck Surg*. 2017 Oct;3(4):957-961. DOI: <http://dx.doi.org/10.18203/issn.2454-5929.ijohns20174314>
“The study suggested that globus pharyngeus is not a single identity but it only represent one of the symptoms of the hyoid bone somatic disorder. GERD was the most common associated condition with globus. PPI is only taking care oesophageal symptoms but for the extra-oesophageal symptoms we require OMT (MFR). It is one of the most effective and less expensive methods to treat the condition. Sensation of a lump in the throat was the symptoms which responded to treatment completely and just after 2-3 sitting of OMT. After full treatment patients requirement to PPI were reduced remarkably. Whenever there is a stress full situation in the life symptoms recur and require antipsychotic treatment along with OMT.”
56. Ankyloglossia (2014). Evidence-based Practice Center Systematic Review Protocol. Project Title: Ankyloglossia. Agency for Healthcare Quality research. https://ahrq-ehc-application.s3.amazonaws.com/media/pdf/ankyloglossia_research-protocol.pdf
57. Cardoso, R., R. and Lumini-Oliveira, J. (2017). The Effectiveness of Physiotherapy and Complementary Therapies on Voice Disorders: A Systematic Review of Randomized Controlled Trials. *Front Med (Lausanne)*. 2017; 4: 45. Published online 2017 Apr 24. doi: [10.3389/fmed.2017.00045](https://doi.org/10.3389/fmed.2017.00045)
58. Roy, Nelson. (2008). Assessment and treatment of musculoskeletal tension in hyperfunctional voice disorders. *International Journal of Speech-Language Pathology*, 2008; 10(4): 195–209. DOI: 10.1080/17549500701885577
59. Fernandez, Lecrissa Hyacinta. (2017). Efficacy of myofascial release technique on anterior chest wall muscles in children with restrictive lung diseases on spirometric parameters and quality of life-A randomized controlled trial. <http://182.48.228.33:8080/jspui/handle/123456789/2584>
“Conclusion: MFR is a beneficial and an efficient technique in the treatment of RLD’s (Restrictive Lung Disease) in children. It significantly increased the chest expansion due to release of the fascial restrictions and improved the lung function which was evident through significant increase in the spirometric parameters. The QoL improved significantly in these children”
60. Silvério KCA, Brasolotto AG, Siqueira LTD, Carneiro CG, Fukushiro AP, de Jesus Guirro RR. Effect of application of transcutaneous electrical nerve stimulation and laryngeal manual therapy in dysphonic women: clinical trial. *J Voice*(2015) 29(2):200–8. doi:10.1016/j.jvoice.2014.06.003
“After LMT (Laryngeal Manual Therapy), there was improvement of the “sore throat,” significantly lower incidence of pain in the anterior neck, and the pain intensity in the posterior neck decreased.”
61. Gupta, A., Arora, B., Rishi, P. (2017) *Int. J Yoga, Physiotherapy, and Phys. Ed.* 2017 2(5): 126-131. Recovery from temporomandibular joint dysfunction: An overview of different physiotherapy approaches. http://scholar.google.com/scholar_url?url=http://www.sportsjournal.in/download/164/2-4-17-677.pdf&hl=en&sa=X&scisig=AAGBfm1Hwrj5Qj4_mnqdlFO5WrX9sbzaZw&nossl=1&oi=scholaralrt
“Results of the study includes the 3 weeks of treatment program resulted in significant improvement in reduction of pain (NPRS p<0.05) & increase in mouth opening (p<0.05) & increase the functional status in TMJD patients. However, was found to be more clinically effective compared to MFR (Myofascial Release) in all outcome scores. Conclusions of the study is that both MFR & PRT (Positional Release Technique) are effective in reducing pain and increasing mouth opening in TMJD subjects. However MFR was found to be superior to PRT.”
62. Pearson, W.G., Langmore, S. E., Zumwalt, A. C. (2011). Evaluating the Structural Properties of Suprahyoid Muscles and their Potential for Moving the Hyoid. *Dysphagia*. 2011 December ; 26(4): 345–351. doi:10.1007/s00455-010-9315-z.
63. German, R. Z., Campbell-Malone, A.W., et al (2011). The Concept of Hyoid Posture. *Dysphagia* (2011) 26:97–98 DOI 10.1007/s00455-011-9339-z. (A counterpoint to article #62.)
64. Russell, B.A. (2010). Using Manual Tension Reduction Treatment in treating Pediatric Functional Dysphonia. *Contemp. Issues Commun. Science and Disorders*. 37, 131-140 Fall 2010, <https://www.asha.org/uploadedFiles/asha/publications/cicsd/2010F-Using-Manual-Tension-Reduction-Treatment.pdf>.
63. Diener, I., Kargela, M., Louw, A. (2016). Listening is therapy: Patient interviewing from a pain science perspective. *Physiotherapy Theory and Practice*. <http://dx.doi.org/10.1080/09593985.2016.1194648>.
64. Alghadir AH, Zafar H, Al-Eisa ES, Iqbal ZA. Effect of posture on swallowing. *Afri Health Sci*. 2017;17(1): 133-137. <https://dx.doi.org/10.4314/ahs.v17i1.17>. Demonstrates how changes in posture as a treatment strategy influences swallowing.
“Postural modification may help in rehabilitation of patients with dysphagia by affecting bolus flow to improve speed and safety of swallowing by closure of airways to prevent aspiration.”
65. Lumau, A., Schinocca, L., Chessa, G. (2011). Influence of posture on swallowing. *Europ J of Paediatric Dentistry*. 12(3), 171-174, 2011. This paper reverses the usual relationship, postulating from their findings that improving tongue position and swallowing will allow better body/head position posture to be seen. In a bit of a reversal from traditional reasoning, this small study sets a tone for tongue corrections as a basis for overall change.
“This study showed that swallowing is able to modulate postural control and it can be a determining factor in postural syndromes that, if not promptly intercepted, may evolve into full-blown and irreversible musculoskeletal disorders for which treatment often proves ineffective.”
66. von Piekartz, H.J.M., Coppeters, M.W., De Weerd, W.J., (2002). A Proposed Neurodynamic test of the Mandibular Nerve. Reliability and Reference Values. Published in *Manuelle Therapie*, June 2002, Thieme. <https://crafta.net/artikel/art4.pdf>
67. Aterias, B., von Piekartz, H. (2017). Integration of a neurodynamic approach into the treatment of dysarthria for patients with idiopathic Parkinson's disease: A pilot study. *Journal of Bodywork & Movement Therapies xxx* (2017) 1e9. <https://doi.org/10.1016/j.jbmt.2017.12.004>. This study is the first to introduce concepts of neurodynamic testing/treatment into the speech language pathology world. Its methods and manner of presentation is to be applauded, as unlike many papers that mention a style/type/brand of manual therapy, much is left to the imagination as to just what was done to constitute the study. This particular paper shows in great detail much of the hands-on work, as well as speak to specific nerves in terms of distribution/innervation as well as how best to access/treat it, from a neurodynamic technique perspective. This paper fits my bias, hence the enthusiasm, in that addressing dysfunction from models that are explained from narratives more acceptable to the wider scientific community may be less fitting the older *rabbit hole* narratives of tissue-specific change and effects.
“The rationale for the integration of neurodynamics into standard treatment is, that it may directly affect the peripheral nervous system, resulting in improved efficiency of the region treated. After a short neural mobilization, the clinician observes an obvious improvement in speech motor skills, e.g. a clearer speaking voice. With the improved speech skills, the subsequent speech therapy exercises can be carried out in a more intensive and more effective manner. Therefore, a speech therapy treatment with the integration of neurodynamic techniques may lead to better results than the same treatment without neurodynamics.”
- “The additional neurodynamic treatment in the IG included mobilization and palpation of peripheral nerves. Palpation and mobilization of***

the peripheral nerves are painless manual techniques, which may be used as physical examination but also as treatment techniques. Superficial peripheral nerves may be palpated by gentle lateral pulling of the nerve with the fingertip (like plucking a guitar string) (Butler, 2006). The purpose of mobilization of the nervous system supports normal functional movement of peripheral neural tissues, like gliding and stretching without discomfort, and treatment of non-neural structures surrounding the nervous system, like joints, muscles or even scar tissue (Coppieters and Butler, 2008). Detailed palpation and mobilization techniques have been described by Butler (1995, 2006), Maitland (2004), and specifically for cranial nerves by Piekartz von (2007). The following cranial nerves supply the muscles involved in speech: trigeminal nerve (V), facial nerve (VII), glossopharyngeal nerve (IX), vagus nerve (X), accessory nerve (XI), and hypoglossal nerve (XII) (Wendler et al., 2005; Ziegler, 2006; Ziegler and Vogel, 2010). In addition, motor innervation of the respiratory muscles is effected through the phrenic nerve, the intercostal nerves IeXI, and branches from the cervical and the brachial plexus (Larsen and Ziegenfub, 2012; Schulte et al., 2007; Ziegler, 2006; Ziegler and Vogel, 2010). As part of the clinical reasoning process, the particular choice of which nerves were treated was derived from the outcome of the first evaluation sheet of the BoDyS. The neurodynamic techniques described below were integrated into the standard dysarthria treatment. To improve respiration, thoracic mobilization was performed (Butler, 2006; Jeangros, 2011; Piekartz von, 2011) to mobilize the intercostal nerves. Likewise, palpation and mobilization of the cervical plexus, brachial plexus, and accessory nerve (Butler, 1995, 2006; Shacklock, 2008) were implemented for the treatment of speech-related breathing. Palpation and mobilization of the vagus nerve (Maitland, 2004; Piekartz, 2015) were the neurodynamic treatment techniques used to improve vocal function. Similarly, in patients with articulation disorders, palpation techniques alone were used for the facial nerve (Fig. 2), whereas mobilization and palpation techniques were used for the trigeminal (Fig. 3), hypoglossal, and glossopharyngeal nerves (Butler, 2006; Piekartz von, 2007). The neurodynamic maneuvers within the context of dysarthria treatment are summarized in Table 2.”

68. Khoddami, Seyyede Maryam et al. (2015). Review on Laryngeal Palpation Methods in Muscle Tension Dysphonia: Validity and Reliability Issues Journal of Voice , Volume 29 , Issue 4 , 459 – 468. DOI: <https://doi.org/10.1016/j.jvoice.2014.09.023>.

“There were five main as well as miscellaneous palpation methods that were different according to target anatomical structures, judgment or grading system, and using tasks. There were only a few scales available, and the majority of the palpatory methods were qualitative. Most of the palpatory methods evaluate the tension at both static and dynamic tasks. There was little information about the validity and reliability of the available methods.”

69. Seffinger, M. A., Najm, W., Mishra, S. I., Adams, A., Dickerson, V. M., Murphy, L. S., Reinsch, S. (2004). Reliability of Spinal Palpation for Diagnosis of Back and Neck Pain: A Systematic Review of the Literature. Spine: October 1st, 2004 - Volume 29 - Issue 19 - p E413-E425
doi: 10.1097/01.brs.0000141178.98157.8e

“Conclusion: The quality of the research on interreliability and intrareliability of spinal palpatory diagnostic procedures needs to be improved. Pain provocation tests are most reliable. Soft tissue paraspinous palpatory diagnostic tests are not reliable.”

70. Dworkin, S. F., LeResche, L., DeRouen, T., Von Korff, M. (1990). Assessing clinical signs of temporomandibular disorders: Reliability of clinical examiners. The Journal of Prosthetic Dentistry. Volume 63, Issue 5, May 1990, Pages 574-579. [https://doi.org/10.1016/0022-3913\(90\)90079-R](https://doi.org/10.1016/0022-3913(90)90079-R).

“many clinical signs important in the differential diagnosis of subtypes of TMD were not measured with high reliability. In particular, assessment of pain in response to muscle palpation and identification of specific temporomandibular joint sounds seemed to be possible only with modest, sometimes marginal, reliability. These modest reliabilities could arise from examiner error because the clinical signs are themselves unreliable, changing spontaneously over time and making it difficult to find the same sign on successive examinations. The finding that, without calibration, experienced clinicians showed low reliability with other clinicians suggests the importance of establishing reliable clinical standards for the examination and diagnostic classification of TMD.”

71. Hsieh, C.J., Hong, C.Z., Adams, A.H., Platt, K.J., Danielson, C.D., Hoehler, F.K., Tobis, J.S. (2000). Interexaminer Reliability of the Palpation of Trigger Points in the Trunk and Lower Limb Muscles. Arch Phys Med Rehabil 2000;81:258-64. DOI: [https://doi.org/10.1016/S0003-9993\(00\)90068-6](https://doi.org/10.1016/S0003-9993(00)90068-6)

“Conclusions: Among nonexpert physicians, physiatric or chiropractic, trigger point palpation is not reliable for detecting taut band and local twitch response, and only marginally reliable for referred pain after training.”

72. Chapelle, Susan L. Understanding and Approach to Treatment of Scars and Adhesions. Full text link: <http://www.squamishintegratedhealth.com/wp-content/uploads/Evidence-Based-Scars-Adhesions.pdf>

72. Broom, Brian. (2016). Naming what we do. Europ J for Person Centered Healthcare 4(2), 265-270. <http://wholeperson.healthcare/wp-content/uploads/2016/10/Naming-what-we-do-a-512-BROOM-v3.pdf>

73. Bialosky, J.E., Bishop, M.D., Cleland J.A. (2010). Individual Expectation: An overlooked, but Pertinent, Factor in the Treatment of Individuals Experiencing Musculoskeletal Pain. Phys Ther. 90(9) 2010; 1345-1355. Doi: 10.2522/ptj.20090306.

General references/more information:

A. Myofascial release: an evidence-based treatment approach? By [Lars Remvig](#); [Richard M. Ellis](#); [Jacob Patijn](#)
<http://www.manevonline.com/doi/abs/10.1179/175361408X293272>

B. For a list of published studies on myofascial release, please refer to the Myofascial Resource website:
<http://www.waldfritzseminars.com/myofascialresource/resources/research>

C. If we can't stretch fascia, what are we doing, by Alice Sanvito. <http://www.massage-stlouis.com/if-we-cannot-stretch-fascia-what-are-we-doing>

D. The Basic Science of Myofascial Release, by Mark Barnes.

http://www.lebauerpt.com/uploads/1/3/9/4/1394925/mark_barnes_the_basic_science_of_mfr.pdf

E. Fibromyalgia, by John F. Barnes, PT <http://mfr-reclaimyourhealth.com/wp-content/uploads/2013/05/Fibromyalgia-article.pdf>52. The John F. Barnes Myofascial Release Approach, http://perthmfr.com.au/pdf/JFBApproach_part2.pdf

F. Freeing Emotions and Energy Through Myofascial Release, by Noah Karrasch.

G. [Understanding the Process of Fascial Unwinding](#), by Budiman Minasny <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3091471/pdf/ijitmb-2-3-10.pdf>

H. [Three-Dimensional Mathematical Model for Deformation of Human Fasciae in Manual Therapy](#). Hans Chaudhry, PhD; Robert Schleip, MA; Zhiming Ji, PhD; Bruce Bukiet, PhD; Miriam Maney, MS; Thomas Findley, MD, PhD

- I. Fascia: The Tensional Network of the Human Body, 1st Edition, by Schleip, Findley, Chaitow, and Huijing.
- J. For information on neurodynamic technique, please refer to texts by David Butler, PT, such as “Mobilisation of the Nervous System”, and Michael Shacklock’s “Clinical Neurodynamics: A New System of Neuromusculoskeletal Treatment”.
- K. General explanations for myofascial release may be found at: http://en.wikipedia.org/wiki/Myofascial_release
- L. Ingner, DE. (2006). Cellular mechanotransduction: putting all the pieces together again. *FASEB J*. 2006 May;20(7):811-27. DOI: 10.1096/fj.05-5424rev
- M. For hundreds of research citations on myofascial release and related topics: <http://www.waldfritzseminars.com/myofascialresource/resources/research>
- N. One older published article on the science behind myofascial release: http://www.lebauerpt.com/uploads/1/3/9/4/1394925/mark_barnes_the_basic_science_of_mfr.pdf
- O. Diane Jacobs, PT; originator of DNM, <http://www.dermoneuromodulation.com/>
<http://humanantigravitysuit.blogspot.com/>
- P. A few excellent texts on neurodynamics and tunnel syndromes:
Clinical Neurodynamics: A New System of Musculoskeletal Treatment, by Michael O. Shacklock · Elsevier Butterworth-Heinemann (2005)
Tunnel Syndromes by Marko M. Pecina, Andrew D. Markiewitz and Jelena Krmpotic-Nemanic (Oct 2, 1991)
- Q. Modality Empires, by Paul Ingraham. <http://saveyourself.ca/articles/modality-empires.php>
- R. Does Fascia Matter? By Paul Ingraham. <https://www.painscience.com/articles/does-fascia-matter.php>
- S. Functional Atlas of the Human Fascial System, by Carla Stecco, which presents extensive cadaveric dissection studies of fascia throughout the body, but with little mention of the nerves.
- T. [Fascial mechanoreceptors and their potential role in deep tissue manipulation](#). By Robert Schleip.
- U. Myofascial Release, by Keith Eric Grant and Art Riggs. http://order.deeptissuemassage.com/Riggs_Grant.pdf
- V. Fascia defined: <http://en.wikipedia.org/wiki/Fascia>
- W. Fascial plasticity – a new neurobiological explanation, Parts I and II, by Robert Schleip. <http://www.somatics.de/schleip2003.pdf>
- X. [Effectiveness of myofascial release: systematic review of randomized controlled trials](#). Ajimsha MS1, Al-Mudahka NR2, Al-Madzar JA2. *J Bodyw Mov Ther*. 2015 Jan;19(1):102-12. Doi: 10.1016/j.jbmt.2014.06.001. Epub 2014 Jun 13.
- Y. [Myofascial release as a treatment for orthopaedic conditions: a systematic review](#). McKenney K1, Elder AS, Elder C, Hutchins A. *J Athl Train*. 2013 Jul-Aug;48(4):522-7. Doi: 10.4085/1062-6050-48.3.17. Epub 2013 Apr 3.
- Z. [How to Simplify Chronic Pain Puzzles](#), by Paul Ingraham. <https://www.painscience.com/articles/occams-razor-for-chronic-pain.php>
- AA. The Science of Placebo, by Todd Hargrove. <http://www.bettermovement.org/blog/2014/the-science-of-placebo>
- BB. Soft Tissue Mobilization to Resolve Chronic Pain and Dysfunction Associated With Postoperative Abdominal and Pelvic Adhesions: A Case Report. <http://www.jospt.org/doi/abs/10.2519/jospt.2015.5766>
- CC. The effects of manual therapy on connective tissue: <http://ptjournal.apta.org/content/72/12/893.long>
- DD. A critical review of the trigger point phenomenon: <http://rheumatology.oxfordjournals.org/content/early/2014/12/03/rheumatology.keu471.full.pdf?keytype=ref&ijkey=hShg4fj4QoqzNx>
- EE. Referral pain of peripheral nerve origin: an alternative to the “myofascial pain” construct: <http://www.pain-education.com/referred-pain.html>
- FF. The fall of the postural-structural-biomechanical model?
http://www.cpdo.net/Lederman_The_fall_of_the_postural-structural-biomechanical_model.pdf
- GG. Pain and the neuromatrix of the brain: <http://www.jdentaled.org/content/65/12/1378.long>
- HH. The frictional properties at the thoracic skin-fascia interface: implications in spine manipulations: <http://www.ncbi.nlm.nih.gov/pubmed/12034123>
- II. A meta-analysis of massage therapy research: https://www.researchgate.net/publication/8922944_A_Meta-Analysis_of_Massage_Therapy_Research
- JJ. The top ten most-cited massage therapy articles. <https://massagetherapyresearchandeducation.wordpress.com/2015/09/02/updated-the-top-ten-most-cited-massage-therapy-research-articles/>
- KK. Training principles for fascial connective tissues: scientific foundations and suggested practical applications. <http://www.ncbi.nlm.nih.gov/pubmed/23294691>
- LL. Visceral mobilizations can lyse and prevent peritoneal adhesions in a rat model: <http://www.squamishintegratedhealth.com/wp-content/uploads/Adhesion-paper.pdf>
- MM. How to Simplify Chronic Pain Puzzles: <https://www.painscience.com/articles/occams-razor-for-chronic-pain.php>
- NN. A meta-analytic review of the hypoalgesic effects of exercise. Exercise is helpful for pain, but is weakness the cause of pain? No. <http://www.ncbi.nlm.nih.gov/pubmed/23141188>
- OO. Exercise therapy for chronic musculoskeletal pain: Innovation by altering pain memories. <http://tinyurl.com/hvznk6x>
- PP. Alternative Medicine and Common Errors of Reasoning
http://journals.lww.com/academicmedicine/Fulltext/2001/03000/Alternative_Medicine_and_Common_Errors_of.9.aspx
- QQ. A meta-analytic review of the hypoalgesic effects of exercise. <http://www.ncbi.nlm.nih.gov/pubmed/23141188>
- RR. Exercise therapy for chronic musculoskeletal pain: Innovation by altering pain memories. <http://www.ncbi.nlm.nih.gov/pubmed/25090974>
- SS. Conditioned pain modulation predicts exercise-induced hypoalgesia in healthy adults. <http://www.ncbi.nlm.nih.gov/pubmed/24870571>
- TT. Dose-response of strengthening exercise for treatment of severe neck pain in women. <http://www.ncbi.nlm.nih.gov/pubmed/23478473>
- UU. Exercise, not to exercise, or how to exercise in patients with chronic pain? Applying science to practice. <http://www.ncbi.nlm.nih.gov/pubmed/24662498>
- VV. Manual therapy and exercise for neck pain: a systematic review
<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0029773/>
- UU. [Neuroimaging Placebo Effects: New Tools Generate New Questions](#)
- WW. [How Placebos Change the Patient’s Brain](#)
- XX. Understanding and approach to the treatment of scars and adhesions. <http://www.squamishintegratedhealth.com/wp-content/uploads/Evidence-Based-Scars-Adhesions.pdf>

YY. Ideomotor Movement in Pain Management, by Luke Rickard. www.lukerickardsosteopath.net/wp-content/uploads/2014/04/Ideomotor-Movement-in-Pain-Management.pdf

ZZ. Myofascial Release Approach, by John Barnes. perthmfr.com.au/pdf/JFBApproach_part2.pdf

AB. From the Barrel Institute website: Mechanical Signaling Through Connective Tissue: A Mechanism for the Therapeutic Effect of Acupuncture. <http://tinyurl.com/gtsp95t>

AC. Increasing Muscle Extensibility: A Matter of Increasing Length or Modifying Sensation? <http://www.pgedf.ufpr.br/downloads/Artigos%20PS%20Mest%202014/Anna%20Raquel/Weppler%20&%20Magnusson%20PHYS%20THER-2010.pdf>

AD. Translating fascia research into techniques you can use (Part II). http://www.advanced-trainings.com/articles/FascScience&LBP.pt2.AMT_20110517.pdf

AE. The Role of Descending Modulation in Manual Therapy. <https://www.hindawi.com/journals/prt/2015/292805/>

AF. Affective massage therapy. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3091449/>

AG. What effect can manual therapy have on pain experience. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4976880/>

AH. Reconceptualising manual therapy skills in contemporary practice. <https://www.ncbi.nlm.nih.gov/pubmed/28286240>

AI. The Mechanisms of Manual Therapy in the Treatment of Musculoskeletal Pain: A Comprehensive Model. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2775050/#?po=3.42466>

AJ. Cutaneous afferent regulation of motor function. <http://www.zbunto.ane.pl/pdf/7416.pdf>

AK. McKenzie K, Elder AS, Elder C, Hutchins A (2013). Myofascial Release as a Treatment for Orthopaedic Conditions: A Systematic Review. Journal of Athletic Training; 48(4):522–527 doi: 10.4085/1062-6050-48.3.17

AL. Emotional and physiological responses to touch massage. <http://umu.diva-portal.org/smash/get/diva2:568111/FULLTEXT01.pdf>