# Lymphatic Training Resources

- Doreen's article: The Benefits of Skeletal Muscle for Cancer Prevention & Survival
- Immune system analogy- <u>"Activating the Immune System Against Cancer" by Melody Swartz</u>, PhD
- Book: Lymph & Longevity: The Untapped Secret to Health
- Book: The Book of Lymph: Self-Care Practices to Enhance Immunity, Health, and Beauty
- Lymph accounts to follow on IG: @LymphLoveClub, @BalanceWithBabzYoga
- <u>Cancer specific movement training</u>- Healthy Steps

### Lymphatics:

- Inflammation & lymphatic function (2019)
- <u>Circadian clocks control lymphatics</u> (2017)
- Social stress enhances sympathetic innervation of primate lymph nodes and implications in viral/immune responses (2007)
- <u>Lymphatic system: an active pathway for immune protection</u> (2015)
- ANS regulation of lymph vessels (2019)
- <u>Lymph node sensory innervation & immunomodulating potential (2021)</u>
- <u>Lymphatic remodeling</u> (2019)
- Lymph innervation (2021)
- <u>Sympathetic nerve distribution in lymph nodes</u> (2020)
- <u>Sensory nerve regulation of lymph nodes</u>(2021)
- <u>Control of lymph node activity by direct innervation</u> (2022)
- <u>A Distinct Role of the Autonomic Nervous System in Modulating the Function of Lymphatic Vessels under</u> <u>Physiological and Tumor-Draining Conditions (2019)</u>
- Microanatomy of the intestinal lymphatics (2010)
- Lymphatic pumping: mechanics, mechanisms and malfunction (2016)
- <u>Lymphatic Clearance of Immune Cells in Cardiovascular Disease</u> (2021)
- Lymphatic system flows (2018)
- Lymphatic system and sentinel lymph nodes (2022)
- Role of the lymphatic system in the pathogenesis of Crohn's disease (2011)
- <u>The Role of the Mesentery in Crohn's Disease: The Contributions of Nerves, Vessels, Lymphatics, and Fat to</u> <u>the Pathogenesis and Disease Course</u> (2016)
- Lymphoid Aggregates Remodel Lymphatic Collecting Vessels that Serve Mesenteric Lymph Nodes in Crohn Disease (2016)
- Intestinal lymphatic vasculature: structure, mechanisms and functions (2017)
- <u>The significance of respiration for thoracic duct flow in relation to other driving forces of lymph flow</u> (1978)
- Aqua lymphatic therapy for managing lower extremity lymphedema (2008)
- Resistance exercise and breast cancer–related lymphedema—a systematic review update and meta-analysis (2020)
- The Role of the Lymphatic System in Endometriosis: A Comprehensive Review of the Literature (2015)

### **Glymphatics:**

- <u>Glymphatics</u> (2015)

- The Glymphatic System: A Beginner's Guide (2015)
- <u>A mesothelium divides the subarachnoid space into functional compartments</u> (2023)
- Vasomotion as a driving force for paravascular clearance in the awake mouse brain (2020)
- <u>The Glymphatic System: A Novel Component of Fundamental Neurobiology</u> (2021)
- Achieving brain clearance and preventing neurodegenerative diseases—A glymphatic perspective (2021)
- <u>The glymphatic system and meningeal lymphatics of the brain: new understanding of brain clearance</u> (2021)
- Choroid plexus genes for CSF production and brain homeostasis are altered in Alzheimer's disease (2018)
- A dural lymphatic vascular system that drains brain interstitial fluid and macromolecules (2015)
- <u>Physiology, Cerebral Spinal Fluid</u> (2022)
- Immediate impact of yogic breathing on pulsatile cerebrospinal fluid dynamics (2022)
- Identification of the Upward Movement of Human CSF *In Vivo* and its Relation to the Brain Venous System (2017)
- <u>Respiratory effects on CSF flow</u> (2017)
- Breathing drives CSF: impacts on spaceflight disease (2019)
- Deep breathing couples CSF and venous flow dynamics (2022)
- Respiratory cerebrospinal fluid flow is driven by the thoracic and lumbar spinal pressures (2020)
- <u>Spinal CSF flow in response to forced thoracic and abdominal respiration</u> (2019)
- <u>Respiratory influence on cerebrospinal fluid flow</u> (2019)
- Deep breathing couples CSF and venous flow dynamics (2022)
- <u>Can meditation-based approaches improve the cleansing power of the glymphatic system?</u> (2022)
- <u>Clinically-derived vagus nerve stimulation enhances cerebrospinal fluid penetrance</u> (2020)
- Intermittent Fasting Protects against Alzheimer's Disease (2017)
- <u>Beneficial effects of low alcohol exposure, but adverse effects of high alcohol intake on glymphatic</u> <u>function</u> (2018)
- <u>Physical Exercise at Midlife and Risk of Dementia Three Decades Later</u> (2008)
- Voluntary Exercise Promotes Glymphatic Clearance of Amyloid Beta and Reduces the Activation of Astrocytes and Microglia in Aged Mice (2017)
- Voluntary running enhances glymphatic influx in awake behaving, young mice (2018)
- <u>Cerebral Arterial Pulsation Drives Paravascular CSF–Interstitial Fluid Exchange in the Murine Brain</u> (2013)
- Flow of cerebrospinal fluid is driven by arterial pulsations and is reduced in hypertension (2018)
- <u>Coupled electrophysiological, hemodynamic, and cerebrospinal fluid oscillations in human sleep</u> (2019)
- <u>Effect of sleep posture on glymphatic transport</u> (2015)
- Does sleep flush wastes from the brain (2021)
- The Sleeping Brain: Harnessing the Power of the Glymphatic System through Lifestyle Choices (2020)

### Lymphedema:

- Sleigh BC, Manna B. Lymphedema. [Updated 2022 Sep 18]. In: StatPearls [Internet]. Treasure Island (FL):
  StatPearls Publishing; 2022 Jan-. Available from: <u>https://www.ncbi.nlm.nih.gov/books/NBK537239/</u>
- 2. Rockson, S.G., Keeley, V., Kilbreath, S. et al. Cancer-associated secondary lymphoedema. Nat Rev Dis Primers 5, 22 (2019). https://doi.org/10.1038/s41572-019-0072-5
- 3. Semin Plast Surg. 2018 Feb; 32(1): 12–16. Published online 2018 Apr 9. doi: 10.1055/s-0038-1635117
- 4. Silent Waves Theory and Practice of Lymph Drainage Therapy : an Osteopathic Lymphatic Technique By Bruno Chikly · 2004
- 5. ANTICANCER RESEARCH 41: 3233-3246 (2021) doi:10.21873/anticanres.15109

- 6. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6107585/
- 7.<u>https://scholar.google.com/scholar?start=10&q=international+society+of+lymphology&hl=en&as\_sdt=0,</u>
  40&as\_vis=1
- 8. Janine T. Hidding, Peter B. Viehoff, Carien H.G. Beurskens, Hanneke W.M. van Laarhoven, Maria W.G. Nijhuis-van der Sanden, Philip J. van der Wees, Measurement Properties of Instruments for Measuring of Lymphedema: Systematic Review, Physical Therapy, Volume 96, Issue 12, 1 December 2016, Pages 1965–1981, https://doi.org/10.2522/ptj.20150412
- 9. Primary lymphedema French National Diagnosis and Care Protocol (PNDS; Protocole National de Diagnostic et de Soins) December 2021Orphanet Journal of Rare Diseases 16(1)
- https://link.springer.com/article/10.1186/s13023-020-01652-w
- 10. Bergmann A, Baiocchi JMT, de Andrade MFC. Conservative treatment of lymphedema: the state of the art. J Vasc Bras. 2021 Oct 11;20:e20200091. doi: 10.1590/1677-5449.200091. PMID: 34777487; PMCID: PMC8565523.
- 11. Wang D, Lyons D, Skoracki R. Lymphedema: Conventional to Cutting Edge Treatment. Semin Intervent Radiol. 2020 Aug;37(3):295-308. doi: 10.1055/s-0040-1713447. Epub 2020 Jul 31. PMID: 32773955; PMCID: PMC7394577.
- 12. Kareh AM, Xu KY. Surgical Management of Lymphedema. Mo Med. 2020 Mar-Apr;117(2):143-148. PMID: 32308240; PMCID: PMC7144713.
- 13. Au PC, Li HL, Lee GK, Li GH, Chan M, Cheung BM, Wong IC, Lee VH, Mok J, Yip BH, Cheng KK, Wu CH, Cheung CL. Sarcopenia and mortality in cancer: A meta-analysis. Osteoporos Sarcopenia. 2021
  Mar;7(Suppl 1):S28-S33. doi: 10.1016/j.afos.2021.03.002. Epub 2021 Mar 30. PMID: 33997306; PMCID: PMC8088991.
- 14. <u>https://www.nccn.org/professionals/physician\_gls/pdf/survivorship.pdf</u>
- 15. Saraswathi V, Latha S, Niraimathi K, Vidhubala E. Managing Lymphedema, Increasing Range of Motion, and Quality of Life through Yoga Therapy among Breast Cancer Survivors: A Systematic Review. Int J Yoga. 2021 Jan-Apr;14(1):3-17. doi: 10.4103/ijoy.IJOY\_73\_19. Epub 2021 Feb 5. PMID: 33840972; PMCID: PMC8023442.
- 16. Saraswathi V, Latha S, Niraimathi K, Vidhubala E. Managing Lymphedema, Increasing Range of Motion, and Quality of Life through Yoga Therapy among Breast Cancer Survivors: A Systematic Review. Int J Yoga. 2021 Jan-Apr;14(1):3-17. doi: 10.4103/ijoy.IJOY\_73\_19. Epub 2021 Feb 5. PMID: 33840972; PMCID: PMC8023442.
- 17. Scallan JP, Zawieja SD, Castorena-Gonzalez JA, Davis MJ. Lymphatic pumping: mechanics, mechanisms and malfunction. J Physiol. 2016 Oct 15;594(20):5749-5768. doi: 10.1113/JP272088. Epub 2016 Aug 2.
   PMID: 27219461; PMCID: PMC5063934.
- 18. https://pubs.rsc.org/en/content/articlehtml/2022/lc/d1lc00720c
- 19. Le CP, Sloan EK. Stress-driven lymphatic dissemination: An unanticipated consequence of communication between the sympathetic nervous system and lymphatic vasculature. Mol Cell Oncol. 2016 May 31;3(4):e1177674. doi: 10.1080/23723556.2016.1177674. PMID: 27652324; PMCID: PMC4972108.
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- 21. Shah C, Whitworth P, Valente S, Schwarz GS, Kruse M, Kohli M, Brownson K, Lawson L, Dupree B, Vicini FA. Bioimpedance spectroscopy for breast cancer-related lymphedema assessment: clinical practice guidelines. Breast Cancer Res Treat. 2023 Feb;198(1):1-9. doi: 10.1007/s10549-022-06850-7. Epub 2022 Dec 24. PMID: 36566297; PMCID: PMC9883343.
- 22. Gosain R, Gage-Bouchard E, Ambrosone C, Repasky E, Gandhi S. Stress reduction strategies in breast cancer: review of pharmacologic and non-pharmacologic based strategies. Semin Immunopathol. 2020

Dec;42(6):719-734. doi: 10.1007/s00281-020-00815-y. Epub 2020 Sep 18. PMID: 32948909; PMCID: PMC7704484.

- Exercises after breast cancer surgery by the American Cancer Society
- Resistance exercise and breast cancer related lymphedema a systematic review update (2019)
- Manual lymphatic drainage for lymphedema following breast cancer treatment (2015)
- <u>A HISTORICAL ACCOUNT OF THE ROLE OF EXERCISE IN THE PREVENTION AND TREATMENT OF</u> <u>CANCER-RELATED LYMPHEDEMA</u> (2020)
- <u>Exercise Guidelines for Cancer Survivors: Consensus statement from International Multidisciplinary</u> <u>Roundtable</u> (2019)

# Cancer:

- <u>Stress and cancer: The mechanisms of immune dysregulation and management</u> (2022)
- Reactivation of dormant tumor cells by modified lipids derived from stress-activated neutrophils (2020)
- <u>Chronic Stress Promotes Cancer Development</u> (2020)
- Stress and Cancer- National Cancer Institute
- <u>Physical Activity and Survival in Postmenopausal Women with Breast Cancer: Results from the Women's</u> <u>Health Initiative (2011)</u>
- <u>Relationship and interactions of curcumin with radiation therapy</u> (2016)
- <u>Cording: a treatable complication of breast cancer surgery (2019)</u>

# Other:

- <u>The Efficacy of Stretching Exercises on Arterial Stiffness in Middle-Aged and Older Adults: A Meta-Analysis</u> <u>of Randomized and Non-Randomized Controlled Trials</u> (2020)
- Physiotherapy advice after breast reconstruction surgery
- <u>A Sedentary and Unhealthy Lifestyle Fuels Chronic Disease Progression by Changing Interstitial Cell</u> <u>Behaviour: A Network Analysis</u> (2022)
- Macrophages and fibroblasts during inflammation and tissue repair in models of organ regeneration (2017)