**Mobility|WOD**

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**REFERENCES:**

Starrett K, Cordoza G. Becoming a Supple Leopard 2nd Edition, The Ultimate Guide to Resolving Pain, Preventing Injury, and Optimizing Athletic Performance. Victory Belt Publishing; 2015.

<http://www.hopkinsmedicine.org/johns_hopkins_bayview/_docs/medical_services/gynecology_obstetrics/bladder_irritants.pdf>

Stein A. Heal Pelvic Pain: The Proven Stretching, Strengthening, and Nutrition Program for Relieving Pain, Incontinence & I.B.S, and Other Symptoms Without. McGraw Hill Professional; 2008.

Lee DG. The Pelvic Girdle, An integration of clinical expertise and research. Elsevier Health Sciences; 2011.

Nitti, V. W. (2001). The Prevalence of Urinary Incontinence. Reviews in Urology, 3(Suppl 1), S2–S6.

Sims ST, Yeager S. ROAR, How to Match Your Food and Fitness to Your Female Physiology for Optimum Performance, Great Health, and a Strong, Lean Body for Life. Rodale; 2016.

Anatomical landmark asymmetry assessment in the lumbar spine and pelvis: a review of reliability.

(PMID:20129513)

Stovall BA, Kumar S.

PM R [2010]

Yang, P. J., Pham, J., Choo, J., & Hu, D. L. (2014). Duration of urination does not change with body size. Proceedings of the National Academy of Sciences of the United States of America, 111(33), 11932–11937. http://doi.org/10.1073/pnas.1402289111

Sartori, D. V., Gameiro, M. O., Yamamoto, H. A., Kawano, P. R., Guerra, R., Padovani, C. R., & Amaro, J. L. (2015). Reliability of pelvic floor muscle strength assessment in healthy continent women. BMC Urology, 15, 29. <http://doi.org/10.1186/s12894-015-0017-6>

Recognition and management of nonrelaxing pelvic floor dysfunction.

(PMID:22305030)

Faubion SS, Shuster LT, Bharucha AE.

Mayo Clin. Proc. [2012]

Post-operative guidelines following hip arthroscopy.

(PMID:22361976)

Edelstein J, Ranawat A, Enseki KR, Yun RJ, Draovitch P.

Curr Rev Musculoskelet Med [2012]

Musculoskeletal causes of chronic pelvic pain: what a gynecologist should know.

(PMID:23635629)

Gyang A, Hartman M, Lamvu G.

Obstet Gynecol [2013]

Concentration of non-steroidal anti-inflammatory drugs in the pelvic floor muscles: an experimental comparative rat model.

(PMID:24954342)

Chin HY, Changchien E, Lin MF, Chiang CH, Wang CJ.

Yonsei Med. J. [2014]

Physiotherapy for women with stress urinary incontinence: a review article.

(PMID:25276044)

Ghaderi F, Oskouei AE.

J Phys Ther Sci [2014]

1. Kao A, PhD., Binik YM, PhD., Kapuscinski A, B.A., Khalifé S, MD. Dyspareunia in

postmenopausal women: A critical review. *Pain Research & Management : The Journal of the Canadian Pain Society*. 2008;13(3):243-54.

2. Fisher KA. Management of dyspareunia and associated levator ani muscle overactivity. *Phys Ther*. 2007;87(7):935-41.

3. Heim LJ. Evaluation and differential diagnosis of dyspareunia. *Am Fam Physician*

2001;63:1535–44.

4. American College of Obstetricians and Gynecologists. *Sexual dysfunction*. Technical

bulletin no. 211. Washington, DC: ACOG, 1995.

5. Ryan L, Hawton K. Female dyspareunia. *BMJ*. 2004;328:1357.

6. Glatt AE, Zinner SH McCormack WM, The prevalence of dyspareunia. *Obstetrics and Gynecology*. 1990; 75:433-436.

7. Jamieson DF, Steege JF. The prevalence of dysmenorrheal, dyspareunia, pelvic pain,

and irritable bowel syndrome in primary care practices. *Obstetrics and Gynecology*. 1996:87:55-58.

8. Matthias, S. Kupperman, M. et al. Chronic pelvic pain: prevalence, health related quality of life, and economic correlates. *Journal of Obstetrics and Gynecology*. 1996; 87(3) 321-327.

9. Verit FF, Verit A, Yeni E. The prevalence of sexual dysfunction and associated risk factors in women with chronic pelvic pain: A cross-sectional study. Arch Gynecol Obstet 2006;274:297–302.

10. Montenegro ML, Mateus-Vasconcelos EC, Rosa e Silva JC, et al. Importance of pelvic muscle tenderness evaluation in women with chronic pelvic pain. *Pain Med*. 2010; 11:224 –228.

11. Vleeming A, Albert HB, Östgaard HC, Sturesson B, Stuge B. European guidelines

for the diagnosis and treatment of pelvic girdle pain. European Spine Journal. 2008;17(6):794-819.

12. Brauer M, ter Kuile MM, Janssen SA, Laan E. The effect of pain-related fear on sexual arousal in women with superficial dyspareunia. *Eur J Pain*. 2007;11:788 –798.

13. Messelink, B, Benson, T,Berghmans, B, Bo, K, et al, Standardization of Terminology of Pelvic Floor Muscle Function and Dysfunction; Report From the Pelvic Floor Clinical Assessment Group of the International Continence Society, Neurology and Urodynamics, 2005, 24:374-380

14. Rosenbaum TY. Physiotherapy treatment of sexual pain disorders. *J Sex Marital Ther.* 2005;31:329 –340.

15. Simons DG, Travell JG, Simons LS. Travell & Simons' Myofascial Pain and Dysfunction:Upper half of body. Lippincott Williams & Wilkins; 1999.

16. Bø, Karin, Bary Berghmans, Marijke. Van Kampen, Siv Morkved, Evidence BasedTherapy for the Pelvic Floor, Bridging Science and Clinical Practice, 2007, Elsevier.

17*. Guide to Physical Therapist Practice*. 2nd ed. Alexandria, VA: American Physical Therapy Association; 2001.

18. Butler DS, Moseley GL. Explain Pain. Orthopedic Physical Therapy Products (OPTP); 2003.

19. Payne S. Sex, gender, and irritable bowel syndrome: Making the connections. *Gend Med.* 2004, 1:18-28.

20. Alappattu MJ, Bishop MD. Psychological factors in chronic pelvic pain in women:

Relevance and application of the fear-avoidance model of pain. *Phys Ther*. 2011;91(10):1542-50.

21. George SZ, Wittmer VT, Fillingim RB, Robinson ME. Sex and pain-related psychological variables are associated with thermal pain sensitivity for patients with chronic low back pain rehabilitation. *J. Pain.* 2007; 8: 2-10.

22. Kwan KS, Roberts LJ, Swalm DM. Sexual dysfunction and chronic pain: The role of

psychological variables and impact on quality of life. *Eur J Pain*. 2005;9:643–52.

23. Bergeron S, Binik YU, Khalife S. In favor of an integrated pain-relief treatment approach for vulva vestibulitis syndrome. *Journal of Pschyosomatic Obstetrics and Gynecology.* 2002;23(1):5-6.

24. Bergeron S, Binik YU, Khalife S. A randomized comparison of group cognitive-behavioral therapy, surface electromyographic biofeedback, and vestibulolectomy in the treatment of dyspareunia resulting from vulvar vestibulitis. *Pain*. 2001; 91(3):297-306.

25. Rogers RG, Kammerer-Doak D, Villarreal A, Coates K, Qualls C. A new instrument to measure sexual function in women with urinary incontinence or pelvic organ prolapse *Am J Obstet Gynecol.* 2001;184:552-8.

26. Peschers Um, Gingelmaier A, Jundt K, et al. Evaluation of pelvic floor strength using four different techniques. *Int Urogynecology Journal of Pelvic Floor dysfunction*. 2001; 12:27-30.

27. Bo, K, and Sherburn, M. Evaluation of Female Pelvic-Floor Muscle Function and Strength. *Physical Therapy*, 2005; 85:269-282.

28. Laycock, J and Jerwood, D ‘Pelvic floor muscle assessment: The PERFECT Scheme’, *Physiotherapy*, 2001. 87; 12, 631-642.

29. Lindh-Astrand L, Nedstrand E, Wyon Y, Hammar M. Vasomotor symptoms and quality of life in previously sedentary postmenopausal women randomised to physical activity or oestrogen therapy. *Maturitas* 2004; 48: 97-105.

30. Aiello EJ, Yasui Y, Tworoger SS, et al. Effect of a yearlong, moderate-intensity exercise intervention on the occurrence and severity of menopause symptoms in postmenopausal women. *Menopause*. 2004; 11: 382-88.

31. Hartmann D, Strauhal MJ, Nelson CA. Treatment of women in the United States with localized, provoked vulvodynia: practice survey of women’s health physical therapists. *Journal of Women’s Health Physical Therapy*. 2007;31(3):5.

32. Sapsford RR, Hodges PW. Contraction of the pelvic floor muscles during abdominal

maneuvers. *Arch Phys Med Rehabil*. 2001:82(8): 1081-1088.

33. Sapsford R. Rehabilitation of pelvic floor muscles utilizing trunk stabilization. *Manual Therapy.* 2004:9(1): 620-630.

34. Hodges PW, Gandevia SC. Changes in intra-abdominal pressure during postural and

respiratory activation of the human diaphragm. *J Appl Physiol*. 2000;89(3):967-976.

35. Talasz H, Kremser C, Kofler M, Kalchschmid E, Lechleitner M, Rudisch A. Phase-locked parallel movement of diaphragm and pelvic floor during breathing and coughing--a dynamic MRI investigation in healthy females. *International Urogynecology Journal.* 2011;22(1):61-8.

36. Bo, K, SherburnM, Allen,T, Transabdominal measurement of pelvic floor muscle activity patterns when activated directly or via a transversus abdominus contraction. *Neurology and Urodynamics*, 2003, 22 (6): 582-8.

37. Glazer H, Rodke G, Swencionis C et al, Treatment of vulvar vestibulitis syndrome with electromyographic biofeedback of pelvic floor musculature. *Journal of Reproductive* *Medicine.* 1995; 40(4):283-290.

38. Dines, K., Cotter, M., & Cameron, N. Effectiveness of natural oils as sources of gamma-linolinic acid to correct peripheral nerve conduction velocity abnormalties in diabetic rats: Modulation by thromboxane A2 inhibition. *Prostaglandins, Leukotrienes, and Essential Fatty Acids*, 1996.55(3), 159-165.

39. Dizon, D., Wiggins, D. Dyspareunuia and vaginal dryness after breast cancer treatment. *Sexuality, Reproduction, & Menopause*, 1998.6(3), 18-22.

40. Feldhaus-Dahir M. Treatment options for female sexual arousal disorder: Part II. *Urologic Nursing*. 2010;30(4):247-51.

41. Bo K, and Stien R. Needle EMG registration of striated urethral wall and pelvic floor muscle activity patterns during cough, Valsalva, abdominal, hip adductor, and gluteal muscle

contractions in nulliparous health females. *Neurourology and Urodynamics*. 1994;13(1):35-41.

42. Jeffries SA, Robinson JW, Craighead PS, Keats MR. An effective group psychoeducational intervention for improving compliance with vaginal dilation: a randomized controlled trial. *Int J Radiat Oncol Biol Phys. 2006;* 65(2):404–411.

43. Oyama I, Rejba A, Lukban J, et al. Modified thiele massage as therapeutic intervention for female patients with interstitial cystitis and high-tone pelvic floor dysfunction. *Urology.*2004; 64(5):862-865.