

Effectiveness of physical therapy interventions in the treatment of urinary incontinence in older women: a systematic review

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References

1. Merriam-Webster Dictionary. Urge incontinence. Merriam-Webster Web site. <https://www.merriam-webster.com/dictionary/urge%20incontinence>. Updated 2020. Accessed September 20, 2019.
2. National Association for Continence. Urinary incontinence overview. National Association for Continence Web site. <https://www.nafc.org/urinary-incontinence>. Updated 2018. Accessed September 20, 2019.
3. D'Ancona Carlos, Haylen Bernard, Oelke Matthias, et al. An international continence society (ICS) report on the terminology for adult male lower urinary tract and pelvic floor symptoms and dysfunction
. <https://doi.org/10.1002/nau.23897>. Updated 2019. Accessed January 22, 2020.
4. Jahromi MK, Talebizadeh M, Mirzaei M. The effect of pelvic muscle exercises on urinary incontinency and self-esteem of elderly females with stress urinary incontinency, 2013. *Glob J Health Sci.* 2014;7(2):71-79. doi:10.5539/gjhs.v7n2p71. Accessed September 17, 2019.
5. Sherburn M, Bird M, Bø K, Galea MP. Incontinence improves in older women after intensive pelvic floor muscle training: an assessor-blinded randomized controlled trial. *Neurourol Urodyn.* 2011;30(3):317-324. <https://doi.org/10.1002/nau.20968>. Accessed September 18, 2019.
6. Lehmann C, Zipponi I, Baumann MU, Radlinger L, Mueller MD, and Kuhn A. Standardized pelvic floor exercises improve stress urinary incontinence in women with intrinsic sphincter deficiency. *Neurourol Urodyn.* 2016;35(6):711-716. <https://doi-org.libproxy.misericordia.edu/10.1002/nau.22779>. Accessed September 17, 2019.
7. Radziminska A, Weber-Rajek M, Straczynska A, et al. The impact of pelvic floor muscle training on the myostatin concentration and severity of urinary incontinence in elderly women with stress urinary incontinence- a pilot study. *Clin Interv Aging.* 2018;13:1893-1898. <https://doi.org/10.2147/CIA.S177730>. Accessed September 14, 2019.
8. Weber-Rajek M, Radziminska A, Straczynska A, et al. A randomized-controlled trial pilot study examining the effect of pelvic floor muscle training on the irisin concentration in overweight or obese elderly women with stress urinary incontinence. *Biomed Res Int.* 2019;(2019):1-8.
9. Kim H, Yoshida H, Suzuki T. The effects of multidimensional exercise treatment on community-dwelling elderly Japanese women with stress, urge, and mixed urinary incontinence: a randomized controlled trial. *Int J Nurs Stud.* 2011;48:1165-1172. <https://doi.org/10.1016/j.ijnurstu.2011.02.016>. Accessed September 15, 2019.

10. Virtuoso JF, Menezes EC, Mazo GZ. Effect of weight training with pelvic floor muscle training in elderly women with urinary incontinence. *Res Q Exerc Sport*. 2019;90(2):141-150. <https://doi.org/10.1080/02701367.2019.1571674>. Accessed September 15, 2019.
11. Talley K, Wyman JF, Bronas U, Olson-Kellogg BJ, McCarthy TC. Defeating urinary incontinence with exercise training: results of a pilot study in frail older women. *J Am Geriatr Soc*. 2017; 65(6): 1321–1327. <https://doi.org/10.1111/jgs.14798>. Accessed September 16, 2019.
12. Wagg A, Chowdhury Z, Galarneau JM, et al. Exercise intervention in the management of urinary incontinence in older women in villages in Bangladesh: a cluster randomised trial. *Lancet Glob Health*. 2019;(7):923-931. [https://doi.org/10.1016/S2214-109X\(19\)30205-0](https://doi.org/10.1016/S2214-109X(19)30205-0). Accessed September 18, 2019.
13. Leong BS, Mok NW. Effectiveness of a new standardised Urinary Continence Physiotherapy Programme for community-dwelling older women in Hong Kong. *Hong Kong Med J*. 2015;21(1):30-7. doi:[10.12809/hkmj134185](https://doi.org/10.12809/hkmj134185). Accessed September 18, 2019.
14. Singh N, Arya KN. Effectiveness of bladder rehabilitation program in the management of urge urinary incontinence in older women. *Indian J Physiother Occup Ther*. 2011;5(3): 96-99.
15. Correia GN, Pereira VS, Hirakawa HS, Driusso P. Effects of surface and intravaginal electrical stimulation in the treatment of women with stress urinary incontinence: randomized controlled trial. *Eur J Obstet Gynecol Reprod Biol*. 2013;173:113-118. <https://doi.org/10.1016/j.ejogrb.2013.11.023>. Accessed September 17, 2019.
16. Schreiner L, dos Santos TG, Knorst MR, da Silva Filho IG. Randomized trial of transcutaneous tibial nerve stimulation to treat urge urinary incontinence in older women. *Int Urogynecol J*. 2010;(21):1065-1070. doi:[10.1007/s00192-010-1165-6](https://doi.org/10.1007/s00192-010-1165-6). Accessed September 17, 2019.
17. Weber-Rajek M, Radzimska A, Straczynska A, et al. A randomized-controlled trial pilot study examining the effect of extracorporeal magnetic innervation in the treatment of stress urinary incontinence in women. *Clin Interv Aging*. 2018;13:2473-2480. <http://dx.doi.org/10.2147/CIA.S176588>. Accessed September 18, 2019.
18. Weber-Rajek M, Straczynska A, Strojek K, et al. Assessment of the effectiveness of pelvic floor muscle training (PMFT) and extracorporeal magnetic innervation (ExMI) in treatment of stress urinary incontinence in women: a randomized controlled trial. *Biomed Res Int*. 2020;(2020):1-7. doi: 10.1155/2020/1019872.
19. Neville CE, Beneciuk J, Bishop M, Alappattu M. Analysis of physical therapy intervention outcomes for urinary incontinence in women older than 65 years in outpatient clinical settings. *Top Geriatr Rehabil*. 2016;32(4):251-257. doi:[10.1097/TGR.000000000000119](https://doi.org/10.1097/TGR.000000000000119). Accessed September 14, 2019.