



Cochrane
Library

Cochrane Database of Systematic Reviews

Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women (Review)

Dumoulin C, Hay-Smith EJC, Mac Habée-Séguin G

Dumoulin C, Hay-Smith EJC, Mac Habée-Séguin G.

Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women.

Cochrane Database of Systematic Reviews 2014, Issue 5. Art. No.: CD005654.

DOI: [10.1002/14651858.CD005654.pub3](https://doi.org/10.1002/14651858.CD005654.pub3).

www.cochranelibrary.com

Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women (Review)

Copyright © 2014 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

WILEY

[Intervention Review]

Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women

Chantale Dumoulin¹, E. Jean C Hay-Smith², Gabrielle Mac Habée-Séguin³

¹School of Rehabilitation, Faculty of Medicine, University of Montreal, Montreal, Canada. ²Rehabilitation Teaching and Research Unit, Department of Medicine, University of Otago, Wellington, New Zealand. ³Centre de recherche de l'Institut, Universitaire de gériatrie de Montréal, Montreal, Canada

Contact address: Chantale Dumoulin, School of Rehabilitation, Faculty of Medicine, University of Montreal, C.P.6128 Succ. Centre-ville, Montreal, Quebec, H3C 3J7, Canada. chantal.dumoulin@umontreal.ca.

Editorial group: Cochrane Incontinence Group.

Publication status and date: New search for studies and content updated (no change to conclusions), published in Issue 5, 2014.

Citation: Dumoulin C, Hay-Smith EJC, Mac Habée-Séguin G. Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women. *Cochrane Database of Systematic Reviews* 2014, Issue 5. Art. No.: CD005654. DOI: [10.1002/14651858.CD005654.pub3](https://doi.org/10.1002/14651858.CD005654.pub3).

Copyright © 2014 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

ABSTRACT

Background

Pelvic floor muscle training is the most commonly used physical therapy treatment for women with stress urinary incontinence (SUI). It is sometimes also recommended for mixed and, less commonly, urgency urinary incontinence.

Objectives

To determine the effects of pelvic floor muscle training for women with urinary incontinence in comparison to no treatment, placebo or sham treatments, or other inactive control treatments.

Search methods

We searched the Cochrane Incontinence Group Specialised Register, which contains trials identified from the Cochrane Central Register of Controlled Trials (CENTRAL) (1999 onwards), MEDLINE (1966 onwards) and MEDLINE In-Process (2001 onwards), and handsearched journals and conference proceedings (searched 15 April 2013) and the reference lists of relevant articles.

Selection criteria

Randomised or quasi-randomised trials in women with stress, urgency or mixed urinary incontinence (based on symptoms, signs, or urodynamics). One arm of the trial included pelvic floor muscle training (PFMT). Another arm was a no treatment, placebo, sham, or other inactive control treatment arm.

Data collection and analysis

Trials were independently assessed by two review authors for eligibility and methodological quality. Data were extracted then cross-checked. Disagreements were resolved by discussion. Data were processed as described in the *Cochrane Handbook for Systematic Reviews of Interventions*. Trials were subgrouped by diagnosis of urinary incontinence. Formal meta-analysis was undertaken when appropriate.

Main results

Twenty-one trials involving 1281 women (665 PFMT, 616 controls) met the inclusion criteria; 18 trials (1051 women) contributed data to the forest plots. The trials were generally small to moderate sized, and many were at moderate risk of bias, based on the trial reports. There was considerable variation in the interventions used, study populations, and outcome measures. There were no studies of women with mixed or urgency urinary incontinence alone.

Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women (Review)

Copyright © 2014 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

Women with SUI who were in the PFMT groups were 8 times more likely than the controls to report that they were cured (46/82 (56.1%) versus 5/83 (6.0%), RR 8.38, 95% CI 3.68 to 19.07) and 17 times more likely to report cure or improvement (32/58 (55%) versus 2/63 (3.2%), RR 17.33, 95% CI 4.31 to 69.64). In trials in women with any type of urinary incontinence, PFMT groups were also more likely to report cure, or more cure and improvement than the women in the control groups, although the effect size was reduced. Women with either SUI or any type of urinary incontinence were also more satisfied with the active treatment, while women in the control groups were more likely to seek further treatment. Women treated with PFMT leaked urine less often, lost smaller amounts on the short office-based pad test, and emptied their bladders less often during the day. Their sexual outcomes were also better. Two trials (one small and one moderate size) reported some evidence of the benefit persisting for up to a year after treatment. Of the few adverse effects reported, none were serious.

The findings of the review were largely supported by the summary of findings tables, but most of the evidence was down-graded to moderate on methodological grounds. The exception was 'Participant perceived cure' in women with SUI, which was rated as high quality.

Authors' conclusions

The review provides support for the widespread recommendation that PFMT be included in first-line conservative management programmes for women with stress and any type of urinary incontinence. Long-term effectiveness of PFMT needs to be further researched.

PLAIN LANGUAGE SUMMARY

Pelvic floor muscle training versus no treatment for urinary incontinence in women

Stress incontinence is the involuntary leakage of urine with a physical activity such as coughing or sneezing. Urgency leakage occurs with a strong need to urinate, but the person cannot make it to the toilet in time. A combination of stress and urgency leakage is called mixed incontinence.

The review of trials found that pelvic floor muscle training (muscle-clenching exercises) helps women cure and improve stress urinary incontinence in particular, and all types of incontinence.