

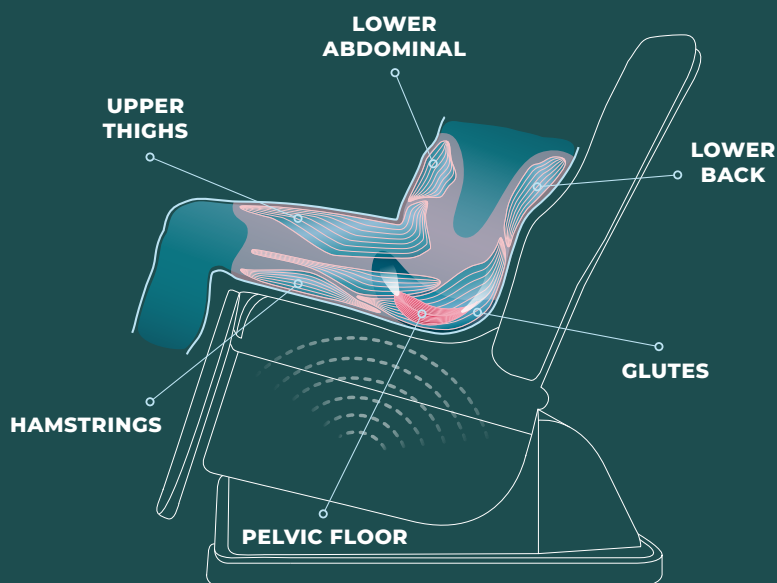


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PonteMed AG Switzerland



SCIENTIFIC STUDIES

MAGNETIC FIELD TRAINING



PONTEMED ACADEMY

The PonteMed Academy is an international circle of experts from both scientific and practical applications in the field of **"Functional Magnetic Stimulation (FMS)"**, which forms the basis of PelvicFMS™, PelviX™ and PelviPower™ Training. Other scientific names are: **"Repetitive Peripheral Muscle Stimulation (RPMS)"** or **"Pulsed Magnetic Stimulation (PMS)"**.

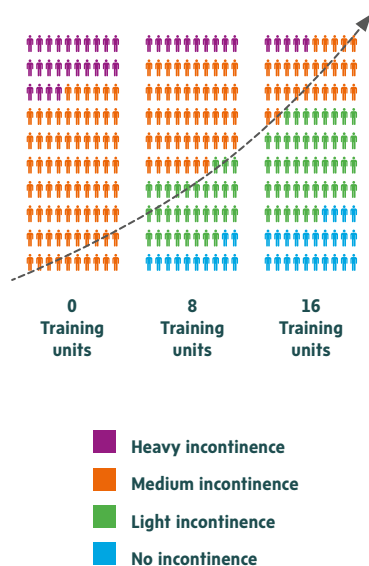
The PonteMed Academy is committed to continual analysis and review of research worldwide, and provides up to date, systematic results for the diverse applications of PelvicFMS™, PelviX™ and PelviPower™ Training in prevention and therapy.

APPLICATION EXAMPLES

PelvicFMS™, PelviX™ and PelviPower™ Training provide a non-invasive, neuro-muscular training by means of a magnetic field with the aim of improving the **overall function and strength of the pelvic floor** and surrounding musculature.

Studies show that magnetic stimulation improves the functionality of the pelvic floor and can be used for a variety of preventive and therapeutic applications and to increase quality of life.

Significant improvement
of severe and moderate incontinence
after only 8 weeks.



Voiding Dysfunction

Pulsed Magnetic Stimulation for Stress Urinary Incontinence: 1-Year Followup Results

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Abbreviations and Acronyms
 ICI = International Consultation on Incontinence
 ICI-Q/UISq = ICI Questionnaire-Lower Urinary Tract Symptoms Quality of Life
 ICI-Q/UISF = ICI Questionnaire for Urinary Incontinence-Short Form
 PFMT = pelvic floor muscle training
 PMS = pulsed magnetic stimulation
 SUI = stress urinary incontinence

Purpose: Despite significant differences in success rates between surgical and nonsurgical treatments for female stress urinary incontinence, a few cross-sectional surveys showed that most patients still prefer the latter. We evaluated the efficacy of the under studied nonsurgical treatment using pulsed magnetic stimulation for female stress urinary incontinence.

Materials and Methods: This randomized, double-blind, sham controlled study was performed in 120 female subjects at least 21 years old with stress urinary incontinence. Treatment involved pulsed magnetic stimulation for 2 sessions per week for 2 months (16 sessions). After 2 months, subjects could opt for 16 additional sessions regardless of initial randomization. The primary response criterion was a 5-point reduction in the ICI-Q/UISF (International Consultation on Incontinence Questionnaire for Urinary Incontinence-Short Form) score. Key secondary response criteria included objective and subjective cure, supplemented by other secondary criteria. Followups were performed at months 1, 2, 5, 8 and 14.

Results: At 2 months 45 of 60 subjects (75%) in the active arm vs 13 of 60 (21.7%) in the sham arm were treatment responders ($p < 0.001$). After 2 months 24 subjects (40%) in the active arm and 41 (68%) in the sham arm elected additional sessions of active pulsed magnetic stimulation had the highest percentage of treatment responders (18 of 24 or 75.0%), followed by those who received 16 sessions (26 of 36 or 72.2% and 28 of 41 or 68.3%) and those who did not receive any active pulsed magnetic stimulation (4 of 19 or 21.1%) ($p < 0.001$).

Conclusions: The encouraging long-term response rates show that pulsed magnetic stimulation is an attractive nonsurgical alternative for patients who do not want to undergo surgery.

Key Words: urinary bladder; urinary incontinence, stress; pelvic floor; magnetic field therapy; risk

STRESS urinary incontinence is a common and distressing condition.^{1,2} The 5th ICI advocated PFMT with success rates of 15% to 56% as the gold standard nonsurgical treatment.^{3,4} However, there is no

standardized PFMT regimen⁵ and the success of PFMT is often limited by poor compliance.^{6,7} Other nonsurgical options (eg biofeedback, vaginal cones and electrical stimulation) are limited by low success rates of 9% to 65%,

EXCERPT STUDY LIST

AREA: OVERALL PELVIC FLOOR FUNCTION & ACTIVITY

Płazkowski et al. (2020) observed increased pelvic floor activity using surface electromyography (sEMG) following magnetic stimulation training. Their study was a prospective, randomised, single-blind study with a sham intervention group, which showed that magnetic field training improves pelvic floor activity, control and functionality.

AREA: INCONTINENCE

Sun et al. (2021) conducted a high quality meta-analysis of randomized controlled trials on the use of magnetic stimulation for female stress urinary incontinence. It revealed that magnetic stimulation has a positive effect on stress urinary incontinence, with no adverse reactions across all studies.

He et al. (2019) show in a systematic review and meta-analysis that magnetic stimulation reduces symptoms and improves quality of life in all forms of urinary incontinence (stress-, urge- and mixed incontinence).

AREA: OVERACTIVE BLADDER

Bele et al. (2024) carried out a prospective, single-blinded, randomized, sham-controlled study that showed positive effects of magnetic stimulation as an addition to drug therapy for overactive bladder.

AREA: SEXUAL FUNCTION

Galimberti et al. (2024) conclude that treatment with a magnetic stimulation chair is a safe and effective way to improve erectile function.

González-Isaza et al. (2022) used a randomized controlled study design to look at the safety and efficacy of magnetic stimulation with a focus on health-related quality of life and sexuality in women with incontinence. They revealed a favourable impact on clinical outcomes, quality of life, and sexuality in the magnetic stimulation group.

AREA: BACK

Tammasse et al. (2021) showed that repetitive peripheral magnetic stimulation influences the improvement of insomnia and pain in chronic low back pain patients.

AREA: PROSTATE / PELVIC PAIN

de Pedro Negri et al. (2022) carried out a systematic review of randomised controlled trials on magnetic stimulation with chronic pelvic pain. They revealed positive effects, particularly finding positive results in a male population with chronic pelvic pain syndrome (chronic prostatitis).

Giannakopoulos et al. (2011) carried out a randomized controlled trial that showed significant improvements in the symptoms of clients with enlarged prostate in the magnetic stimulation group that persisted one year later! This was a stark contrast to the participants in the control group (drug therapy), who all had to undergo prostatectomy surgery after the completion of the study because of deteriorated symptoms and no change in prostate size.

AREA: SUPPORT FUNCTION OF THE PELVIC FLOOR / POSTNATAL RECOVERY

Xu et al. (2023) looked at the outcomes of clinical efficacy, pelvic floor muscle strength, pelvic organ prolapse degree and quality of life in patients with postpartum dysfunction. They found magnetic stimulation with pelvic floor muscle training (PFMT) to be significantly more effective and beneficial than PFMT alone across all outcomes.

AREA: POSTNATAL RECOVERY

Silanteva et al. (2020) show that magnetic stimulation was significantly more effective than electrical stimulation in improving symptoms of pelvic floor dysfunction in postpartum women. This significant difference was shown in the improvement of pelvic floor muscle contraction (electromyography) and also in the subjectively reported perceptions (a validated questionnaire).

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