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The Most Frequently Recommended Urological Pelvic Floor Physiotherapy Techniques for Men Based on the Latest Scientific Research

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Abstract

Urological dysfunctions, such as post-prostatectomy urinary incontinence, chronic pelvic pain syndrome and overactive bladder, constitute a significant clinical problem in men. Pelvic floor muscle physiotherapy is currently the most recommended conservative and supportive treatment option. The aim of this study was to analyze the latest scientific reports on the effectiveness of the most commonly used urological physiotherapy techniques for the pelvic floor in men. Material and methods consisted of a literature review conducted in databases such as PubMed, Scopus, and Web of Science. Publications were published between 2018 and 2025. Only randomized controlled trials, meta-analyses, and guidelines from scientific societies were included in the analysis: American Urological Association, International Continence Society, European Association of Urology, Polish Urological Association, Polish Continence Society, Polish Physiotherapy Society, and Polish Urogynecological Society. Results: The most effective techniques include pelvic floor muscle training (PFMT) supported by EMG biofeedback and electrostimulation. Additional effectiveness has been demonstrated with ultrasound therapy and other physical treatments. Multimodal therapy combining pelvic floor training, breathing exercises, and core stabilization accelerates the recovery of sphincter function after prostatectomy. The study's conclusions indicate that urological physiotherapy based on pelvic floor muscle training with biofeedback and supported by electrostimulation and neuromodulation techniques may be the best standard of treatment for functional urological disorders in men. Individualized therapy and early initiation increase its effectiveness.

Keywords: Pelvic Floor Muscle Training, Urinary Incontinence, Male, Biofeedback, Psychology, Electrical Stimulation Therapy, Neuromodulation, Physical Therapy Modalities

Content

1. Introduction

Pelvic floor dysfunction, such as urinary incontinence or erectile dysfunction, is a significant health problem in men, particularly after urological procedures, including prostatectomy. Urinary incontinence in men is a significant health and social problem, the prevalence of which increases with age and after urological procedures. The main causes include:

- post-prostatectomy incontinence (PPI),
- overactive bladder (OAB),
- chronic pelvic pain syndrome (CPPS).

Post-prostatectomy incontinence (PPI) is one of the most common complications following radical prostatectomy. Most patients experience urinary incontinence immediately after the procedure. In 10-15% of men, the problem persists for up to 12 months after the prostatectomy (Kovacevic et al.,2024). 75% of patients have mild or no urinary incontinence. Approximately 9-16% of men require various care interventions (pads, diapers) or medical interventions (John et al., 2008). Clinical studies and analyses from rehabilitation centers in Germany (from 2022

to 2016) have shown that despite the increasing prevalence of robotic surgery, factors such as patient age, nerve bundle behavior, and surgeon experience still determine the risk of PPI in the immediate postoperative period (Püllen et al.,2024).Overactive bladder (OAB) affects approximately 16% of men in the general population, with the prevalence increasing to 20–24% in men over 60 years of age (Li et al.,2025; Irvin et al., 2023**)** . According to a meta-analysis published in 2025 on OAB in men, which included 53 studies (including over 610,000 individuals), the average global prevalence of OAB was 20% (Hong-Jun et al., 2016; Zhang 2025**).** Other population-based studies (e.g., EPIC, NOBLE) indicated the prevalence of OAB among men in the United States and Europe ranged from 11.8% to 16.0%. As men age (aged 60–70+), the prevalence tends to increase to 23–24% (Cheng et al.,2024; Nitti 2002). Chronic prostatitis/chronic pelvic pain syndrome (CPPS) in men, according to an analysis prepared for the International Consultation on Urological Diseases, occurs with a frequency of 2.2–16%, with a median of approximately 7.1% (the result applies to the general male population) (Eun et al., 2011; Pontari 2017). The annual incidence was approximately 0.33% per year (Pontari 2017**).**

Physiotherapy for male incontinence is most common after prostatectomy, although it is worth promoting this treatment method due to its effectiveness in treating other causes of incontinence as well. It primarily focuses on pelvic floor muscle training (PFMT), also known as Kegel muscle training (not to be confused with the term "Kegel training," which, according to Dr. Kegel, is not currently used). It forms the basis of conservative treatment. Numerous reviews and clinical trials confirm its effectiveness. A review of the currently available literature demonstrates that PFMT, used alone or in combination with EMG biofeedback and electrostimulation, significantly improves continence and quality of life in men after prostatectomy (Perry et al., 2024). A randomized controlled trial published in the leading urology journal BJU International (2024) showed that patients in the group starting supervised PFMT 2 months before surgery and continuing it postoperatively achieved significantly lower 24-hour diaper load test scores (median 5g vs 21g, p=0.022) and higher rates of correct continence (65.2% vs 31.6%, p=0.030) 12 months after surgery (Ouchi et al., 2024). Another study confirmed better results in patients who participated in physiotherapist-supervised PFMT than in those who only received verbal instructions. The effects were noticeable after 1, 3, and 6 months, with an advantage over the control group without therapy (Strączyńska et al., 2019). A systematic review of PPI studies from the World Journal of Urology indicated that PFMT was the most commonly used intervention (47% of the analyzed studies), with electrical stimulation and vibration being a less frequently used adjunct, although still effective,

especially when combined with PFMT (Canning et al., 2022). Furthermore, a review from the International Journal of Clinical Medicine concluded that PFMT combined with biofeedback and/or electrical stimulation is the most beneficial standard of conservative treatment for urinary incontinence in men, but due to the variety of treatment protocols, precise comparison of effects between studies is difficult (Kannan et al., 2018).

2. Research Objective

The aim of this paper is to present and discuss the most frequently recommended urological physiotherapy techniques for the pelvic floor used in men, with particular emphasis on their effectiveness and current recommendations based on the results of the latest scientific research.

3. Need for a Review of Current Methods

Urological physiotherapy is a key element of therapeutic management, but the dynamic development of this field means that new techniques and scientific evidence regarding their effectiveness are constantly emerging. A review of current methods is essential to:

- update knowledge about effective interventions,
- identify techniques recommended in the latest guidelines and studies,
- facilitate the selection of optimal therapy for patients with various pelvic floor dysfunctions.

Such a review enables rational treatment planning and can support practitioners in making evidence-based clinical decisions (EBM). It may also contribute to the development of a standard therapeutic approach for pelvic floor dysfunction in men.

4. Materials and Methods

This paper is a review of the literature available in databases and in print. It was prepared according to the principles of a narrative review of the scientific literature. Publications on urological pelvic floor physiotherapy in men, published between 2000 and 2025, were analyzed. Data from databases such as PubMed, Scopus, Web of Science, PEDro, and the Cochrane Library were used.

4.1.Inclusion criteria: Articles included in the review:

- published in English or Polish,
- concerning men with pelvic floor dysfunction, including urinary incontinence or erectile dysfunction,

- presenting clinical trials (RCTs, prospective and retrospective studies), meta-analyses, systematic literature reviews, and current guidelines from scientific societies.

4.2.Exclusion criteria: The following were excluded from the analysis:

- studies conducted exclusively in women,
- studies describing urological physiotherapy used exclusively in women,
- publications published before 2000,
- studies of low methodological quality.

Selection procedure: Based on titles and abstracts, publications meeting the inclusion criteria were identified. The full texts were then subjected to a detailed analysis of the type of physiotherapy techniques used, the number and characteristics of the study participants, the duration and effectiveness of the intervention, and the level of evidence according to the EBM hierarchy.

5. Results

Based on the analyses conducted, the following individual physiotherapy techniques used in pelvic floor disorders were selected, along with recommendations and an assessment of their effectiveness.

5.1.Pelvic Floor Muscle Training (PFMT)

This is an exercise program for men designed to strengthen the muscles responsible for bladder and anal control, including sphincter muscles, including levator ani training. It is primarily used to improve urinary control after urological procedures (e.g., radical prostatectomy) and in the treatment of urinary incontinence (Van Kampen et al., 2000; Shamliyan 2008). PFMT is an effective method for reducing urinary incontinence symptoms, accelerating the recovery of bladder control, and improving quality of life (Shamliyan et al.,2008; Mariotti 2014). Regular exercise improves the strength and endurance of the pelvic floor muscles, which translates into reduced urine leakage, especially during stress and urge incontinence (Mariotti et al.,2014; Geraerts et al.,2021). Additionally, PFMT may positively impact sexual function in men by supporting erectile and ejaculatory mechanisms (Centemero et al., 2010). Pelvic floor muscle training in men works by:

- strengthening the urethral sphincters and the muscles supporting the bladder,
- improving bladder control by increasing muscle tone,

- strengthening synergistic core muscles, which helps stabilize the pelvis (Van der Heide et al., 2022). However, the details of the mechanisms require further research (Zhao et al., 2023).

One form of therapy involves individualized exercise instruction by urological physiotherapists, which increases the effectiveness of therapy in men, especially after prostatectomy (Burgio et al., 2022). Exercises performed without prior instruction can be ineffective or even harmful (e.g., during contraction, the urogenital diaphragm does not rise upwards but lowers downwards). Therefore, it is essential for patients to learn the exercises from a physiotherapist and not use ready-made programs without first being taught how to perform them correctly. Therefore, it is not advisable to copy exercises available online or post these exercises on physiotherapy clinic websites. After the patient has been trained and the exercises have been verified by a physiotherapist, they should receive a list of exercises – purely as a reminder, not for mindless execution. Initial exercises are typically guided by ultrasound to monitor the behavior of the urogenital diaphragm during the exercise. Mobile apps and telemedicine facilitate the regularity of previously learned exercises and improve therapeutic outcomes (Kannan et al., 2018; Burgio et al., 2022). The recommended duration of PFMT in men is a minimum of 3 months. Effects such as reduced urinary incontinence and improved control usually last for a year or longer (although long-term studies are currently lacking) (Shamliyan et al., 2008; Burgio et al., 2022). The effectiveness of PFMT in men after prostatectomy has been confirmed by numerous clinical studies. Systematic reviews show that training, used alone or in combination with biofeedback and/or electrostimulation, significantly reduces urinary incontinence after prostatectomy. Combining methods or training alone has been shown to be more effective than no intervention, while the addition of biofeedback alone to exercise remains controversial (Kannan et al., 2018; Van Kampen et al., 2000). Many randomized pilot studies conducted in 2018-2019 showed that 12 weeks of PFMT supervised by a physiotherapist significantly improves quality of life and affects mycostatin levels, compared to the control group without intervention (Strączyńska et al., 2019; Strojek 2021).

5.2.Biofeedback (BFB)

It is often used as a supplementary method for pelvic floor muscle training in men with urinary incontinence, particularly after urological procedures such as radical prostatectomy. Biofeedback helps patients consciously control and strengthen their pelvic floor muscles, which can accelerate improvement in bladder control. The exercise involves visualizing a

contraction—the patient watches a graph of the contraction on a monitor during a contraction—or visualizing it with a picture of a rabbit running up and down a hill (e.g., the patient must maintain the contraction as long as the rabbit runs up the hill, then the rabbit runs down the hill, and during this time, the muscles relax, etc. The picture animations may vary depending on the device). Studies show that adding biofeedback to standard PFMT can increase the effectiveness of the therapy, although not all results are conclusive. Some meta-analyses indicate that biofeedback does not always provide a significant advantage over muscle training alone, but in clinical practice, it facilitates proper muscle activation and motivation for exercise (Berghmans et al., 2014; Zhang et al., 2019). Randomized studies have shown that men using PFMT with biofeedback achieve better results in reducing urinary incontinence symptoms and improving quality of life compared to those using PFMT alone (Ribeiro et al., 2020).

5.3.Pelvic Floor Muscle Stimulation

This is a therapeutic method used to treat urinary incontinence in men, particularly after urological procedures such as radical prostatectomy. The aim of pelvic floor muscle stimulation is to improve muscle strength and endurance through electrical stimulation of the muscles, which can accelerate the rehabilitation process and reduce urinary incontinence symptoms. Pelvic floor muscle stimulation is most often performed using alternating current to increase the contractility of denervated muscles. The procedure is usually performed using an intrarectal probe (the type of probe is determined by the physiotherapist after examining the patient). In some cases, traditional electrodes (placed on the skin) are used. The procedure is performed for several minutes, in a series lasting two weeks, daily. A triangular or rectangular pulse shape can be used, and is individually selected depending on muscle response (Jurys et al., 2019). Clinical studies confirm that electrostimulation combined with pelvic floor muscle training produces better results than PFMT alone, especially in the first months after surgery (Glazener et al.,2012). Meta-analyses have shown that adding electrostimulation to training improves bladder control and reduces the time to recovery of voiding function (Chen et al., 2019). Despite positive results, the effectiveness of electrostimulation may vary depending on stimulation parameters, duration of therapy, and individual patient characteristics (Dumoulin et al., 2018). Further research is needed to optimize pelvic floor electrostimulation protocols.

5.4.Percutaneous Tibial Nerve Neuromodulation (PTNS)

This non-invasive method utilizes transcutaneous electrostimulation of the tibial nerve, which influences central and peripheral bladder control. PTNS is well tolerated and can be used as a

complementary or alternative therapy, especially in patients with milder symptoms (Booth et al., 2019) . It involves electrical stimulation of the tibial nerve, a branch of the sciatic nerve located near the medial malleolus. Electrical impulses are transmitted retrogradely to the sacral segments of the spinal cord (S2-S4), which control bladder and pelvic floor muscle function. Stimulation modulating the activity of these nerves leads to normalization of bladder muscle contraction patterns and improved urinary control (MacDiarmid et al., 2010; Chuang et al., 2009). The procedure is typically performed in a series of 12 sessions, each lasting approximately 30 minutes, usually once a week. An electrode is placed percutaneously near the tibial nerve, and the patient experiences mild tingling or muscle contractions during the procedure. After the initial treatment phase, maintenance sessions can be performed at irregular intervals to help maintain the effects of the therapy (Kabay et al., 2019). Clinical studies have shown that percutaneous tibial nerve neuromodulation is effective in improving voiding control in men with various forms of urinary incontinence (Siegel et al., 2018). However, it requires a series of treatments and may be less effective than other therapeutic methods in patients after radical prostatectomy (Amundsen et al., 2010). Numerous clinical studies confirm the effectiveness of this method in reducing urinary incontinence symptoms, especially in patients with overactive bladder and milder forms of the disorder. In men after urological procedures such as radical prostatectomy, it can be used as a complementary or alternative therapy, especially when standard rehabilitation methods (pelvic floor training, pharmacotherapy) do not produce satisfactory results (Amundsen et al., 2010; Peters et al., 2007).

5.5.Multimodal therapy

This is an integration of breathing exercises, core stability, and manual therapy. It utilizes components such as respiratory coordination (the diaphragm and pelvic floor muscles work synergistically), activation of the deep trunk muscles (core) to stabilize the pelvis and spine, and manual therapy to improve tissue mobility and eliminate compensatory tension in the pelvic area. Diaphragmatic breathing exercises involve drawing air down into the chest without bulging the abdominal wall. The goal of these exercises is to synchronize the work of the respiratory diaphragm and the urogenital diaphragm (pelvic floor muscles). Both diaphragms work synchronously, meaning that when the respiratory diaphragm rises, the urogenital diaphragm also rises, and similarly when it falls. Therefore, the essence of the exercises is to trigger pelvic floor contraction while exhaling, when the respiratory diaphragm moves upward. This synchronization of muscle activity between both diaphragms makes the exercises effective. During inhalation, the pelvic floor relaxes and during exhalation, it activates;

exercises teach proper control of intra-abdominal pressure. This improves coordination and reduces excessive pressure on the urethra (Thompson et al., 2006; Stafford et al., 2016). Core muscle training aims to activate the transverse abdominis, multifidus, and pelvic floor muscles in synergy. Central stabilization creates a "cylinder" that supports micturition control and reduces the risk of leaks (Hodges et al., 2018). Exercises are performed in a lying position, with supports, and with progression to functional positions (e.g., Pilates or Dynamic Neuromuscular Stabilization - DNS). Manual therapy and tissue mobilization aim to loosen excessively tense pelvic floor structures, improve the mobility of post-operative scars, and restore proper function of the sacroiliac joints and lumbar spine. Gentle pelvic joint mobilization, deep tissue massage, and myofascial release techniques are also performed. This reduces compensatory tension and increases the effectiveness of PFMT (Frawley et al., 2017; Dufour et al., 2018). Studies suggest that programs combining pelvic floor training with core stabilization exercises, breathing exercises, and manual therapy may accelerate the return of continence after prostatectomy compared to pelvic floor training alone (Chang et al., 2016).

5.6.Water-Vibration Massage (WBVT)

This treatment involves the use of vibrations with a frequency typically between 20-40 Hz and an amplitude of 2-4 mm, which activate proprioceptive receptors and induce tonic reflexes, leading to increased pelvic floor muscle activity (Tantawy et al., 2019; Anonymous 2016). A 2019 randomized study of 61 men with mild urinary incontinence after prostatectomy showed that the combination of pelvic floor muscle training and vibration massage significantly improved urinary incontinence symptom scores and reduced pad weight in the 24-hour pad test compared to pelvic floor muscle training alone (Chang 2016; Anonymous 2016). The treatment procedure involved the use of vibrations at a frequency of 20 Hz and an amplitude of 2 mm at the beginning of the therapy, followed by 40 Hz and 4 mm. The treatment was performed three times a week for four weeks (Tantawy et al., 2019; Lauper et al., 2009). In a protocol involving the use of vibration massage in a supine position in a patient with resistant urinary incontinence after prostatectomy, normal continence and return to work were restored after six weeks of therapy (Anonymous 2016). Vibration massage significantly increases pelvic floor muscle activity, as confirmed by sEMG recordings, with vibrations at a frequency of 40 Hz and an amplitude of 4 mm being most effective (Anonymous 2016). This therapy increases muscle strength and improves muscle coordination, which translates into faster resolution of urinary incontinence symptoms (Tantawy et al., 2019; Lauper et al., 2009).

5.7.Other physiotherapy methods used in the treatment of incontinence

Magnetic stimulation is a procedure whose mechanism of action involves a magnetic field inducing pelvic floor muscle contractions without the need for rectal penetration. It is a comfortable and non-invasive method. Research results to date are promising, based on pilot studies (Samuels et al., 2019; Doğanay et al., 2010).

Ultrasound (sonotherapy) is used as an adjunct for pelvic pain and difficulty activating muscles after surgery. It also increases blood flow to the treated area. Ultrasound at a frequency of 1 MHz produces a micro-massage and a thermal effect in deep tissue. They reduce the stiffness of postoperative tissues, justifying their use in the treatment of post-prostatectomy scars. They are also used as an adjunct to pelvic floor muscle training (Özlü et al., 2019). Due to the paucity of studies, ultrasound is used as an adjunct to other treatment methods (Gilling et al., 2012).

Biostimulation laser therapy (low-level) is a physical therapy procedure whose light improves microcirculation. This promotes tissue regeneration and can stimulate muscles. Due to the paucity of studies, low-level laser therapy is used as an adjunct to other treatment methods (Sowa et al., 2019).

Shockwave therapy (Li-ESWT) is a type of physical therapy whose mechanism of action involves the stimulation of angiogenesis and tissue regeneration within the urethra and sphincter. Research on this therapy method primarily demonstrates its effects on erectile dysfunction and chronic pelvic pain. However, there are fewer studies of shockwave therapy for stress urinary incontinence in men (Mykoniatis et al., 2020). Therefore, it is used as an adjunct to other treatment methods. TECAR deep-wave diathermy is a form of therapy where the flow of high-frequency current (300–500 kHz) causes deep tissue overheating and improved microcirculation. This leads to increased muscle and fascia elasticity, which supports nerve and muscle regeneration after prostatectomy. Furthermore, local blood supply and trophic function of the pelvic floor muscles are improved. This method supports pelvic floor training and manual therapy. The method is supported by scientific studies demonstrating a shorter recovery time after prostate surgery (Bertone et al., 2021; Szczygiel et al., 2020). INDIBA® radiofrequency diathermy operates at a frequency of 448 kHz, generating a thermal and biostimulating effect that activates tissue regeneration, improves microcirculation, and supports pelvic floor muscle relaxation (González-Gutiérrez et al., 2023). Available sources show that INDIBA® can be an effective complement to physiotherapy in men, including post-prostatectomy and urinary incontinence therapy. This technology allows access to deep structures without the use of rectal probes, increasing patient comfort and treatment acceptance (Fitoussi-Soussen 2021). According to current research, radiofrequency diathermy operating in the 300 kHz-1 MHz

range can shorten recovery time by improving pelvic floor muscle strength, reducing pain, and improving quality of life (Szczygiel 2020). In one prospective study, the implementation of RF in a multimodal protocol (biofeedback + radiofrequency) resulted in significant improvements in muscle strength and pain reduction (Fernández-Cuadros et al., 2020).

Shortwave diathermy (SWD) uses radio waves at a frequency of 27.12 MHz, which generate deep tissue heating. This method is used in physiotherapy to improve microcirculation, pelvic floor muscle regeneration, and reduce inflammation, which may be a supportive strategy for post-prostatectomy rehabilitation. General reviews of RF diathermy in pelvic floor therapies indicate improved muscle strength and patient comfort, including reduced urinary incontinence and pain symptoms (González-Gutiérrez et al., 2022). Diathermy can support the effects of pelvic floor muscle training through thermal effects and stimulation of tissue trophism, particularly at the very beginning of physiotherapy. Preliminary research findings support the use of SWD as part of a multimodal therapy combining pelvic floor muscle training, electrostimulation, manual techniques, and thermotherapy (González-Gutiérrez et al., 2022; Manaila et al., 2024).

6. Discussion

Urinary incontinence in men, particularly after radical prostatectomy, remains a significant clinical problem that impacts patients' quality of life and psychosocial functioning (Abrams et al., 2021). Contemporary urological physiotherapy focuses on multilevel pelvic floor rehabilitation, encompassing both traditional methods and modern techniques. The best-documented method is pelvic floor muscle training (PFMT), whose effectiveness in accelerating the return of continence after urological procedures has been confirmed by numerous meta-analyses (Stafford et al., 2020; MacDonald et al., 2018). Implementing this therapy in the preoperative period accelerates postoperative recovery and reduces the percentage of patients with chronic urinary incontinence (Milios et al., 2019). Biofeedback is an effective tool for supporting the learning of proper muscle activation, allowing patients to visualize pelvic floor muscle contraction (Giraudo et al., 2019). Studies show that the use of biofeedback combined with PFMT increases the effectiveness of physiotherapy, especially in men with difficulties in independently sensing muscle activity (Frawley et al., 2020). Electrical stimulation is used in situations where independent muscle activation is insufficient. Stimulation of the pudendal nerve or direct muscle stimulation leads to muscle strengthening and improved sphincter control (Van Kampen et al., 2010). Its role is primarily important in the early stages of physiotherapy, but when used as a sole form of therapy, it brings fewer benefits

than when combined with active exercises (Kim et al., 2020). Transcutaneous neuromodulation, as another therapeutic method, in the form of transcutaneous tibial nerve stimulation (PTNS), has been shown to have a beneficial effect on micturition control (Finazzi-Agro et al., 2020). If this form of stimulation is ineffective, sacral nerve stimulation (SNS) can be used. This invasive method (involves implanting an electrode stimulating the sacral nerves, most often S3) is used primarily for patients with resistant urinary incontinence and overactive bladder (Groen et al., 2019). Recently, urological physiotherapy has also utilized modern procedures such as deep-tissue diathermy (TECAR), magnetostimulation, and photobiomodulation. They aim to improve blood flow, trophism, and tissue regeneration in the pelvic floor, which may accelerate the effects of conventional rehabilitation (Doğanay et al., 2010; Bertone et al., 2021). Initial research results are promising, but they still require confirmation in large, randomized clinical trials. Multimodal physiotherapy, combining PFMT with core stabilization exercises, respiratory training, manual therapy, and modern physical therapy, plays an important role in urological physiotherapy (Ciftci F et al., 2021). This approach is consistent with the current trend in physiotherapy, namely combining methods aimed at improving muscle strength, neuromuscular coordination, and tissue quality. Although the Polish Physiotherapy Society does not publish independent guidelines for physiotherapy for urinary incontinence in men, it promotes pelvic floor muscle training, electrostimulation, and biofeedback as supportive methods in its official educational materials, as well as comprehensive, individual rehabilitation planning based on diagnosis and palpation (Polskie Towarzystwo Uroginekologiczne 2014). Physiotherapy, including intensive pelvic floor muscle training lasting at least 3 months, is recommended as the primary, most important intervention for stress incontinence (Jurys et al.,2019;terapiadnamiednicy.pl 2025; ptug.pl 2025). Electrostimulation is more effective than magnetotherapy, and supervised pelvic floor muscle training is more effective than independent training. In each intervention, the need for individualized selection of methods and palpation assessment (including rectal examination) is emphasized before establishing a therapeutic program (terapiadnamiednicy.pl 2025). Analysis of the latest scientific reports indicates that the highest effectiveness is achieved by integrating several methods, with individualized therapy selection depending on the degree of urinary incontinence, the time since the procedure, and the patient's ability to actively cooperate. However, there are still no clear guidelines regarding the optimal treatment sequence and standardized therapeutic protocols for urological physiotherapy in men.

7. Summary

Based on analyses of currently available research results, the following conclusions were drawn:

1. Pelvic floor muscle training (PFMT) remains the primary and most effective method of urological physiotherapy for men with urinary incontinence, particularly after prostatectomy.
2. Multimodal therapy, integrating PFMT, breathing techniques, core stability training, and elements of manual therapy, appears to be the most effective approach in accelerating the recovery of bladder function and improving patients' quality of life.
3. Combining PFMT with biofeedback or electrical stimulation may accelerate the return of continence and increase the effectiveness of the therapy, although research findings regarding the additional role of biofeedback are not entirely conclusive.
4. Transcutaneous tibial nerve neuromodulation is a valuable complementary or alternative therapy, especially for patients with milder or chronic symptoms.
5. Modern physical therapy methods, such as Tecar, Indiba, heat therapy, and electromagnetic stimulation, can support the healing process, but require further, well-designed clinical trials to confirm their effectiveness.
6. Individualizing therapy based on the severity of symptoms, the patient's abilities, and available physical therapy methods is crucial to achieving optimal treatment results.

Disclosure

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