

---

## HIFEM TECHNOLOGY IN THE TREATMENT OF SEXUAL DYSFUNCTION: A NARRATIVE REVIEW OF CLINICAL EVIDENCE

---

SHARI CAPLAN<sup>1</sup>, CAROLYN A. DELUCIA<sup>2</sup>, PATRICIA WALLACE<sup>3</sup>, JUDSON BRANDEIS<sup>4</sup>

<sup>1</sup> VitalityMD, Integrative Medical Center, Toronto, Canada\*, <sup>2</sup>. Gynecological Solution, Hillsborough, NJ, USA, <sup>3</sup>. Female Pelvic Medicine & Reconstructive Surgery, Center for Pelvic Health and Wellness, Mission Viejo, CA, USA, <sup>4</sup>. BrandeisMD, San Ramon, CA, USA  
VitalityMD, Integrative Medical Center, 1769 Avenue Rd, Toronto, ON M5M 3Y8, Canada  
<sup>1</sup>. [sharicaplan@me.com](mailto:sharicaplan@me.com)\*, <sup>2</sup>. [vivagyn@yahoo.com](mailto:vivagyn@yahoo.com), <sup>3</sup>. [pwallace@pelvichealthwellness.com](mailto:pwallace@pelvichealthwellness.com), <sup>4</sup>. [judson@brandeismd.com](mailto:judson@brandeismd.com)

\*Corresponding Author: Shari Caplan email: [sharicaplan@me.com](mailto:sharicaplan@me.com)

---

### Abstract

Sexual dysfunction is a prevalent and distressing condition that affects both men and women. The pelvic floor muscles play a crucial role in maintaining normal sexual function, and their weakness or dysfunction has been associated with a broad spectrum of sexual health disorders. This narrative review evaluates current clinical evidence on the efficacy of HIFEM technology in the treatment of sexual dysfunction in both men and women. Relevant articles were identified through a literature search of PubMed and Google Scholar using keywords related to HIFEM and sexual dysfunction. Additional studies were included through manual screening. Eligible studies met the following criteria: conducted on human subjects, published in English, and involved HIFEM-based therapy with described treatment protocols. For each study, data on design, sample size, population characteristics, treatment parameters, outcome measures, and reported adverse events were extracted. Six studies involving a total of 147 patients were identified. In female patients, improvements were reported in sexual satisfaction and desire (76%), orgasm frequency (61%), and vaginal lubrication (52%). Partner intimacy improved by up to 44%, while emotional comfort during sexual activity improved in up to 33% of participants. In male patients, erection maintenance improved by 37%, and penile tissue density increased by 69%. Current evidence indicates that HIFEM therapy can enhance sexual function in both men and women. Improvements were observed in multiple domains.

**Key words:** Sexual dysfunction, Pelvic floor muscles, Sexual function, HIFEM, Sexual satisfaction, Orgasm

### 1. INTRODUCTION

Sexual dysfunctions (SD) represent one of the most prevalent and distressing categories of sexual health disorders, affecting individuals across all genders.(1) A meta-analysis of studies

conducted between 2017 and 2022 reported a prevalence of 31% in men and 41% in women.(2) In both sexes, SD encompasses a wide spectrum of conditions, including disorders of desire, arousal, orgasm, ejaculation, and pain, which can significantly impact quality of life and

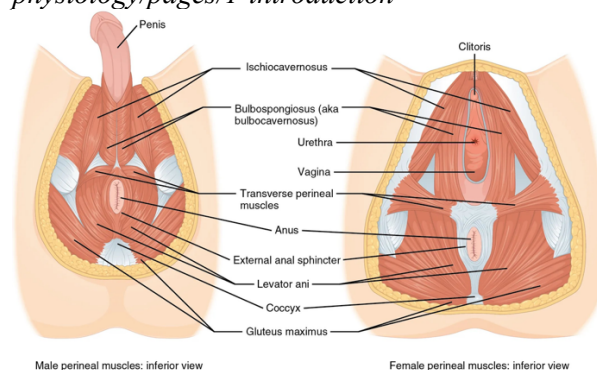
interpersonal relationships. Despite their high prevalence, help-seeking remains low, particularly among women, and sexual dysfunction is widely considered underreported due to shame and stigma.(3,4)

In women, SD may manifest as decreased libido, arousal difficulties, orgasmic dysfunction, dyspareunia, or vaginal laxity. Epidemiological studies have demonstrated that female sexual dysfunction (FSD) affects a substantial proportion of women, with higher prevalence noted among those with pelvic floor disorders (PFDs) and postmenopausal women.(5) In men, common forms of SD include erectile dysfunction, premature ejaculation, and reduced orgasmic intensity. The etiology of SD is multifactorial and includes physiological, psychological, relational, and sociocultural dimensions. Contributing factors include chronic illnesses (e.g., vascular, neurological), age-related hormonal decline, menopause-associated estrogen deficiency, adverse effects of medications, and psychological conditions such as depression, anxiety, and negative body image.(6)

Pelvic floor muscles (PFMs) contribute to sexual function in both sexes through their voluntary and involuntary rhythmic contractions. The urogenital diaphragm works together with these muscles as a key physiological component of this function (see Figure 1). In women, they support pelvic organs, maintain continence, and facilitate vaginal tone, responsiveness, genital arousal, and orgasmic function.(7) Effective contraction of these muscles promotes enhanced blood flow to the genital region, which is essential for tissue oxygenation, lubrication, and sensory responsiveness. Conversely, impaired pelvic floor strength and reduced vascular perfusion may contribute to vaginal dryness, decreased sensation, and difficulty achieving arousal or orgasm. Optimal neuromuscular control of the pelvic floor is also required during sexual activity, in fact, the ability to contract these muscles appropriately during intercourse has been directly linked to orgasmic potential in women. Hence, pelvic floor integrity and function play a central role in optimizing female sexual health.(8–10)

In men, PFMs are involved in erectile rigidity, ejaculation, and orgasmic function.(11–13) Weakness or dysfunction of these muscles has been associated with a range of sexual disorders, including diminished arousal, reduced genital sensitivity, and performance-related issues such as delayed ejaculation in men.(14) Additionally, pelvic floor dysfunction may impair neurovascular mechanisms essential for sexual responsiveness in both genders.(14) If the PFMs become hypotonic and lax due to the factors described above, urinary incontinence (UI) may occur during sexual intercourse or orgasm.(7) The relationship between UI and sexual activity is also shaped by psychological factors, as many women with UI avoid or hesitate to engage in sexual activity due to fear of urinary leakage during intercourse or orgasm.(15)

**Figure 1.** Male and female perineal muscles: inferior view. Source: Access for free at <https://openstax.org/books/anatomy-and-physiology/pages/1-introduction>



Traditional management strategies for SD have primarily focused on pharmacological, hormonal, and psychotherapeutic approaches.(16,17) However, there is a growing interest in non-invasive technologies that use electromagnetic stimulation to target the neuromuscular integrity of the pelvic floor. A major advantage of such therapies is their ability to directly strengthen and rehabilitate underlying muscular dysfunction. PFM reinforcement is not only essential for addressing SD but is also critically important for individuals suffering from UI.(18,19) Evidence supports pelvic floor rehabilitation as an effective approach to enhance both sexual health and UI.(20)

HIFEM technology is a non-invasive modality that strengthens the PFM through deep neuromuscular stimulation.(21) HIFEM delivers focused electromagnetic fields to induce rapid depolarization of motor neurons, generating electric currents that penetrate up to 10 cm into pelvic tissues. Unlike electrical stimulation, where the electric charge flows directly through electrode-tissue to the surface, HIFEM bypasses the skin, thereby avoiding the risk of surface heating commonly associated with electrode-based methods. As the magnetic field passes through the tissue layer without attenuation, it produces supramaximal, brain-independent muscle contractions, far more intense than those achieved through voluntary muscle activation.(22,23) These contractions facilitate neuromuscular re-education, ultimately strengthening and restoring function to the pelvic floor.(24) Animal studies of HIFEM technology have demonstrated its ability to induce both muscle hypertrophy and hyperplasia, a unique effect, as current evidence suggests no other non-invasive method can achieve these two adaptations simultaneously.(25)

This narrative review aims to summarize current clinical evidence on the efficacy of HIFEM technology in the treatment of female and male SD.

## 2. METHODS

A comprehensive narrative review was conducted to evaluate the current clinical evidence on the use of HIFEM therapy (Emsella, BTL Industries Inc., Boston, MA) in the treatment of SD. A literature search was conducted in June 2025 using the PubMed database and Google Scholar to identify relevant clinical studies published up to this date (*Figure 2*). Google Scholar was included as a supplementary source to ensure comprehensive retrieval of studies that may not be indexed in PubMed. The search strategy incorporated combinations of controlled vocabulary, using Boolean operators as follows: (“HIFEM” OR “Emsella”) and (“sexual dysfunction”). Additional sources were identified through manual screening or by reviewing the reference lists of included articles. To provide a broader clinical perspective, one unpublished abstract

presented at the World Congress of the International Master Course on Aging Science (IMCAS) 2020 was included because of its direct clinical relevance to the topic, and also clinically meaningful outcome data were available.

Studies were eligible for inclusion if they met the following criteria: involving human subjects, reported treatment with HIFEM technology, included outcomes related to sexual function in women, men, or mixed populations, described treatment parameters within the manuscript, and were published in English. Studies were excluded if they were preclinical, investigated non-HIFEM interventions, were published in a language other than English, or were abstracts lacking sufficient clinical detail, except for the IMCAS 2020 abstract, which was included due to the availability of relevant outcome data.

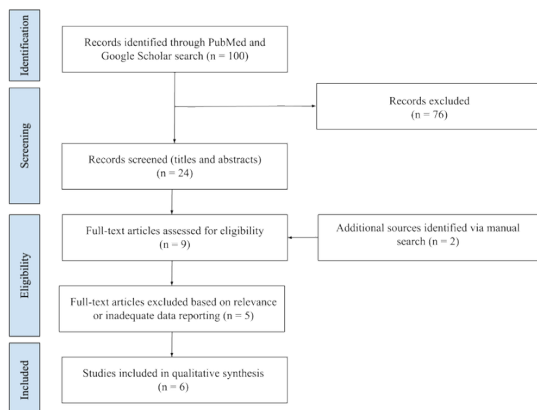
All titles and abstracts were initially screened for relevance. Full-text articles of eligible studies were retrieved and assessed against the predefined inclusion criteria. For each study, the following data were collected: study design, sample size, population characteristics, HIFEM treatment protocol (number of sessions, duration), and primary and secondary outcome measures, including any reported adverse events.

In total, 100 records were identified through database searching and manual screening. Of these, 76 were excluded during the initial screening for not meeting the inclusion criteria. The remaining 24 articles underwent title and abstract review, leading to 9 full-text articles assessed for eligibility. Two additional articles were identified through manual searching. Of the 11 full-text articles reviewed, 5 were excluded due to a lack of relevance or insufficient data reporting. Ultimately, 6 studies met the criteria and were included in the final narrative synthesis. A summary of the selection process is presented in *Figure 2*.

Given the narrative design of this review, no formal risk-of-bias or quality assessment was conducted. Instead, the available evidence was examined qualitatively to contextualize the findings while maintaining an appropriate level of methodological rigour for a narrative synthesis.

The studies were then summarised narratively and grouped by population type (female, male, or mixed) and outcome domain. This approach facilitated the identification of consistent trends and clinically relevant patterns across the evidence base.

**Figure 2.** Flow diagram of study identification and selection



### 3. RESULTS

#### *Clinical Evidence of HIFEM in Female Sexual Function*

Several clinical studies have investigated the effects of HIFEM technology in improving sexual function among women, either as a primary endpoint or within the broader context of pelvic floor therapy. Across these studies, consistent improvements were observed in key domains such as sexual desire, arousal, orgasm frequency, lubrication, and overall sexual satisfaction.

**Study 1: The Use of HIFEM Technology in the Treatment of Pelvic Floor Muscles as a Cause of Female Sexual Dysfunction: A Multi-Center Pilot Study(5)**

A retrospective, multicenter, single-arm, pilot study evaluated the effects of HIFEM treatment in 30 women presenting with impaired sexual function. Participants underwent six treatment sessions administered twice weekly. At the three-month post-treatment, most patients reported substantial improvement in multiple aspects of sexual function, as measured by the Female

Sexual Function Index (FSFI). The most pronounced changes were observed in sexual satisfaction and sexual desire (76%), orgasm frequency (60%), arousal (54%), and lubrication (44%). All participants experienced at least some degree of benefit, suggesting HIFEM stimulation may offer broad therapeutic potential in women with FSD.

**Study 2: Prospective Multi-Center Study on Long-term Effectiveness of HIFEM Procedure for Treatment for Urinary Incontinence and Female Sexual Dysfunction(7)**

This prospective multicenter study investigated long-term outcomes in 31 women with PFM weakness and coexisting UI and SD. All participants received six HIFEM treatments over three weeks. Due to variable follow-up durations, subjects were divided into Group A (n=31, 6-month follow-up) and Group B (n=18, 12-month follow-up).

In Group A, analysis revealed improvements in orgasm frequency (60%), lubrication (52%), and arousal (51%), as measured by the FSFI. The Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12) further demonstrated a 32% improvement in the emotive domain, indicating reduced anxiety, embarrassment, and emotional discomfort related to sexual activity, and a 23% improvement in the physical domain, reflecting decreased pain, less urinary leakage during intercourse, and a greater physical comfort during sexual activity.

Group B demonstrated sustained benefits at one year, with improvements in orgasm frequency (62%), lubrication (46%), and sexual satisfaction (48%) according to the FSFI. Consistent with these findings, the PISQ-12 Emotive domain improved by 34%, indicating ongoing reductions in psychological barriers to sexual intimacy. The partner-related domain improved by 25%, reflecting better communication, reduced tension between partners, and greater mutual enjoyment, thereby supporting the long-term efficacy of HIFEM treatment in enhancing both physical and relational aspects of female sexual health.

**Study 3: The Non-invasive HIFEM Procedure for Improvement of Women's Sexual Function(26)**

A smaller prospective study of 15 women reported improvements in partner intimacy,

emotional comfort, orgasm intensity, and overall sexual excitement on the PISQ-12 following HIFEM therapy. Post-treatment, the greatest improvements were observed in domains related to partner interaction (44%) and emotional well-being (33%). The authors noted that participants with more severe baseline dysfunction appeared to derive the greatest benefit from the treatments.

### ***Clinical Evidence of HIFEM in Male Sexual Function***

To date, two clinical studies have investigated the effects of HIFEM therapy in men with SD. Both studies assessed post-treatment changes in physiological and subjective sexual function parameters following a standardized course of pelvic floor stimulation. Reported endpoints included erectile performance, orgasmic function, ejaculatory parameters, and penile vascular characteristics. The following paragraphs summarize the main outcomes.

#### **Study 1: Improving Male Pelvic Health: Efficacy of HIFEM Muscle Stimulation for Urinary Function and Sexual Dysfunction in Men(27)**

An observational pilot study evaluated HIFEM in 20 adult male participants with urinary symptoms and comorbidity of erectile dysfunction (ED). Following six treatment sessions, participants experienced significant improvements in the ability to maintain an erection (37%), intercourse satisfaction (24%), orgasm frequency (19%), and ejaculatory frequency (11%), as measured by the International Index of Erectile Function (IIEF-15).

These functional improvements were accompanied by a 69% increase in penile tissue segment density (TSD) on ultrasound, suggesting improved penile vascularization and neovascularization of the corpus cavernosum. These physiological changes were consistent with enhanced penile hemodynamics and may contribute to the observed improvements in erectile function.

#### **Study 2: Pelvic Floor HIFEM in Men Improves Ejaculation(28)**

This prospective study investigated the impact of HIFEM stimulation on ejaculatory function in 12 male participants using the IIEF-15

questionnaire. Outcomes included subjective assessments of ejaculatory volume, force, duration, and intensity. Additionally, the overall sexual performance score increased, including a 6-point gain in validated assessments. These findings suggested that HIFEM therapy may positively influence both orgasmic and erectile parameters in men with pelvic floor dysfunction.

### ***Clinical Evidence of HIFEM in Both Male and Female Sexual Function***

#### **Study: The Improvement in Quality of Life and Core Muscle Strength in Elderly Patients by Simultaneous Application of HIFEM with Synchronized Radiofrequency(29)**

This prospective study evaluated the combined use of HIFEM and a device utilizing HIFEM and synchronized RF (Emsculpt Neo, BTL Industries, Inc., Boston, MA) in a mixed-gender population of older adults. A total of 39 participants (26 females, 13 males) underwent four HIFEM+RF sessions and six HIFEM sessions.

Treatments were administered consecutively without any reported discomfort, confirming the tolerability of this dual application. The study reported that over 50% of participants experienced improvements in sexual performance and functional independence, indicating a broader impact on quality of life and core muscle strength, as measured by the Subject Satisfaction and Experience Questionnaire.

### ***Broader Clinical Context: HIFEM and Comorbid Conditions***

#### **Urinary incontinence**

A prospective study by Samuels et al.(30) evaluated symptom changes in 75 patients undergoing HIFEM treatment for UI. At the 3-month follow-up, 81% of participants (61 out of 75) reported a reduction in symptoms. Quantitative scores improved by 64% from baseline. Additionally, 70% of patients reduced their use of continence pads, the proportion of those experiencing leakage during sleep decreased by 64%, and leakage during physical activity was reduced by 58%.

#### **Quality of life**

A prospective study by Duncan et al.(29) showed that consecutive treatments with HIFEM+RF and

standalone HIFEM technology strengthened core musculature and enhanced quality of life. Similarly, a prospective multi-center study by Guerette et al.(31) reported clinically significant improvements in quality of life that persisted even one year post-treatment. A separate prospective study by Singhal et al.(32) also observed meaningful enhancements in quality of life. These findings are particularly relevant given the anatomical integration of the pelvic floor within the core muscle system, which collectively contributes to trunk stability, balance, and postural control. Strengthening the pelvic floor, therefore, may lead to broader functional improvements that extend beyond the pelvic region.

Patients reported high satisfaction with the treatment results, specifically, 92% of subjects would recommend this treatment to family and friends. More than 85% of subjects felt improved overall body movement and could get up more easily from a sedentary position. Improved flexibility and reduced back discomfort were reported by more than 75% of subjects. Better posture and stability were experienced by more than 70% of subjects. Additionally, more than 60% reported less discomfort while carrying things, could walk longer distances, and could stand for longer periods of time. A 34% increase in core muscle strength was also observed.(29)

#### **4. DISCUSSION**

This literature review summarizes the clinical evidence on the efficacy of HIFEM technology in the treatment of SD in both men and women through PFM stimulation (see Table 1). The reviewed data support the therapeutic utility of HIFEM as a non-invasive intervention targeting neuromuscular deficits commonly associated with impaired sexual function.

Across all studies, including women, HIFEM treatment consistently demonstrated improvements in multiple domains of sexual function. The most pronounced improvements were reported in sexual satisfaction (76%), sexual desire (76%), and orgasm frequency (60-62%). Emotional comfort and partner-related aspects of sexual relationships also improved, with reported

gains of up to 34% and 44%, respectively. These results suggest that HIFEM-induced pelvic floor stimulation has the potential to meaningfully enhance both physical and psychosocial components of female sexual function. Notably, the intervention appeared particularly beneficial in women presenting with baseline dysfunction or coexisting UI.

In men, HIFEM therapy was associated with improved erectile maintenance, increased orgasmic and ejaculatory function, and enhanced overall sexual satisfaction. One study additionally reported a 69% increase in penile tissue segment density on ultrasound, suggesting enhanced penile vascularization and neuromuscular engagement. These benefits are particularly relevant in men with coexisting urinary symptoms and erectile dysfunction, patient populations for whom standard treatments may be less effective or poorly tolerated.

Beyond enhancements in sexual function, several studies reported reductions in UI symptoms, including leakage during activity, nocturnal incontinence, and pad use. Over 80% of patients demonstrated a clinically meaningful improvement in continence-related parameters. Another study reported enhanced quality of life outcomes, including postural stability, musculoskeletal comfort, and increased core strength. Weak and dysfunctional PFMs, which contribute to UI, can lead to nocturia or fear of leakage, both of which disrupt sleep. Strengthening the PFMs may improve bladder control and, consequently, sleep quality, factors that support healthy aging.(33,34) There is also an important connection to sarcopenia, a major contributor to nursing home admissions due to its impact on mobility, balance, and continence.(35,36) By strengthening both the core and pelvic floor, as demonstrated in the study conducted by Duncan(37), two key sarcopenia-related risk factors are addressed: loss of muscle strength and incontinence-related loss of independence. Pelvic floor muscle stimulation therefore highlights its broader physiological benefits in aging or deconditioned populations.(38)

In parallel, pelvic floor muscle neuromuscular stimulation technologies such as HIFEM may offer significant benefit in postpartum rehabilitation, providing a non-invasive option to support early restoration of continence and pelvic floor function following childbirth. Targeted strengthening in the early postpartum period may reduce the risk of long-term dysfunction and improve overall quality of life.(39)

Supramaximal muscle contractions produced by HIFEM technology strengthen the pelvic floor muscles, thereby potentially contributing to improvements in sexual function. The underlying mechanisms include enhanced muscle strength, increased blood flow, and improved neuromuscular coordination. Stronger PFMs, particularly those activated through supramaximal contractions, are associated with improved arousal and orgasmic function.(40) These contractions may also increase genital blood flow, promoting tissue health, lubrication, and arousal. In addition, they enhance muscle recruitment and coordination, contributing to better control during sexual activity.(41,42)

Although there is a lack of direct studies examining the relationship between PFM strength and sexual function, the outcomes observed in HIFEM studies are consistent with previously reported findings in related areas. Martinez et al.(43) demonstrated that women with higher PFM strength scored significantly better in sexual desire, excitement, and orgasmic function. Bø et al.(44) reported a significant reduction in sexual complaints after six months of structured pelvic floor training. Similarly, a retrospective cohort of 176 women found that those with stronger PFMs exhibited significantly higher sexual function scores.(45) These findings support the use of neuromuscular strategies aimed at strengthening pelvic floor muscles as a means of enhancing sexual function.

Pharmacologic therapies for SD may offer symptom relief but do not target the underlying neuromuscular mechanisms contributing to pelvic floor dysfunction. Surgical interventions, while effective in specific anatomical indications, carry higher risks and recovery demands. Furthermore, pharmacologic and surgical

approaches are associated with varying degrees of non-adherence and dropout, particularly due to adverse effects.(46) HIFEM therapy, by contrast, delivers supramaximal contractions of the pelvic floor without the need for active patient participation, and without the risks associated with surgery or systemic medications. Across studies included in this review, no serious adverse events were reported. While direct comparisons with pharmacologic or surgical modalities are lacking, the safety profile sets HIFEM as a viable alternative in the non-invasive management of SD.(47)

The strengths of this literature review include the synthesis of existing research and a comprehensive overview of the current state of knowledge on the topic. In addition, it presents a theoretical framework that connects the reported findings to the relevant anatomical context. However, this work also has several limitations, primarily due to the limited number of studies specifically assessing the effectiveness of HIFEM in treating SD. In addition, most of the studies originate from overlapping research groups and rely on small, uncontrolled samples. This may weaken the overall strength of the evidence, and the findings should therefore be considered preliminary. Future research should include well-designed, two-arm studies with larger sample sizes, longer follow-up periods, a greater representation of male participants, and studies evaluating outcomes in both male and female participants. Despite these limitations, HIFEM technology appears to offer a safe and well-tolerated non-invasive option for patients with pelvic floor-related SD, with particular potential in those experiencing coexisting urinary symptoms.

**Table 1.** Summary table of clinical outcomes in participants treated with HIFEM.

Abbreviations: FSFI - Female Sexual Function Index; PISQ-12 - Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire; IIEF - International Index of Erectile Function

| Popul<br>ation | Stu<br>dy                                   | Sam<br>ple<br>Siz<br>e | Study<br>Design                                          | Outc<br>ome<br>Meas<br>ure                                                     | Main<br>Improvemen<br>ts                                                                   |
|----------------|---------------------------------------------|------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Wom<br>en      | Hla<br>vin<br>ka<br>et<br>al.<br>(20<br>19) | 30                     | Retrospect<br>ive, single-<br>arm, pilot<br>study        | FSFI                                                                           | Sexual<br>Satisfaction<br>and Desire<br>(76%),<br>Orgasm<br>(60%)                          |
|                | Eva<br>ns<br>et<br>al.<br>(20<br>23)        | 31                     | Prospectiv<br>e, single-<br>arm, observa<br>tional study | FSFI<br>+<br>PISQ-<br>12                                                       | Orgasm<br>(62%),<br>Lubrication<br>(52%)                                                   |
|                | Bad<br>er<br>et<br>al.<br>(20<br>20)        | 15                     | Prospectiv<br>e, single-<br>arm study                    | PISQ-<br>12                                                                    | Partner-<br>related<br>domain<br>(44%),<br>Emotive<br>domain<br>(33%)                      |
| Men            | Bra<br>nde<br>is et<br>al.<br>(20<br>24)    | 20                     | Prospectiv<br>e, single-<br>arm, pilot<br>study          | IIEF,<br>penile<br>ultras<br>ound<br>scans                                     | Erection<br>maintenance<br>(37%),<br>Orgasm<br>(19%),<br>Tissue<br>density<br>(69%)        |
|                | Lu<br>et<br>al.<br>(20<br>22)               | 12                     | Prospectiv<br>e, single-<br>arm, observa<br>tional study | IIEF-<br>15                                                                    | Increase in<br>ejaculatory<br>function                                                     |
| Both           | Du<br>nca<br>n et<br>al.<br>(20<br>23)      | 39                     | Prospectiv<br>e, single-<br>arm, observa<br>tional study | Subje<br>ct Satisf<br>action<br>and<br>Exper<br>ience<br>Quest<br>ionnai<br>re | Improvement<br>in sexual<br>performance<br>and<br>functional<br>independence<br>(over 50%) |

## 5. CONCLUSION

HIFEM technology may represent a promising non-invasive treatment of SD in both men and women. Its therapeutic effects are based on the neuromuscular strengthening of the pelvic floor muscles, achieved without surgical intervention,

underscoring its potential utility in clinical practice. Early clinical studies have demonstrated consistent improvements in female sexual satisfaction, sexual desire, and orgasm frequency, male erectile function, ejaculatory control, and penile vascularity, as well as symptoms of urinary incontinence. HIFEM treatment may be particularly beneficial for women with postpartum or postmenopausal symptoms, individuals with coexisting urinary incontinence, and men experiencing mild-to-moderate erectile dysfunction or ejaculatory concerns related to pelvic floor weakness. However, larger randomized trials are warranted.

## Funding

This article did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Conflicts of Interest

All authors serve as speakers for BTL Industries and act as clinical investigators. However, no funding or financial support was received for the research, authorship, or publication of this article.

## Data availability statement

All sources are cited; no primary data were generated.

## References

1. Simons J, Carey MP. Prevalence of Sexual Dysfunctions. Arch Sex Behav. 2001 Apr;30(2):177–219.
2. Ramírez-Santos J, Cristóbal-Cañadas D, Parron-Carreño T, Lozano-Paniagua D, Nievas-Soriano BJ. The problem of calculating the prevalence of sexual dysfunction: a meta-analysis attending gender. Sex Med Rev. 2024 Apr 1;12(2):116–26.
3. Kronthaler SM, Oesterling CF, Beier KM, Hatzler L. (028) SEXUAL DYSFUNCTION AND GENDER DIFFERENCES IN HEALTHCARE NEEDS: A POPULATION-BASED ANALYSIS HIGHLIGHTING WOMEN'S NEEDS IN GERMANY. J Sex Med. 2025 Apr 1;22(Supplement\_1):qdaf068.028.
4. Ramlachan P, Campbell MM. An integrative treatment model for patients with sexual

- dysfunctions. *South Afr Med J Suid-Afr Tydskr Vir Geneeskde*. 2014 Jun;104(6):445.
5. Hlavinka T, Turcan P, Bader A. The Use of HIFEM Technology in the Treatment of Pelvic Floor Muscles as a Cause of Female Sexual Dysfunction: A Multi-Center Pilot Study. *J Womens Health Care* [Internet]. 2019 [cited 2025 Jun 18];08(01). Available from: <https://www.omicsonline.org/open-access/the-use-of-hifem-technology-in-the-treatment-of-pelvic-floor-muscles-as-a-cause-of-female-sexual-dysfunction-a-multicenter-pilot-s-2167-0420-1000455-108003.html>
  6. Faubion SS, Rullo JE, Clinic M. Sexual Dysfunction in Women: A Practical Approach. *Am Fam Physician*. 2015;92(4):281–8.
  7. Evans KL, Berenholz J, Samuels JB, Pezzella A, DeLucia CA. Prospective Multi-Center Study on Long-term Effectiveness of HIFEM procedure for Treatment for Urinary Incontinence and Female Sexual Dysfunction. *J Womens Health Care*. 2023 Feb 1;12(2):1–6.
  8. Ma Y, Qin H. Pelvic floor muscle exercises may improve female sexual function. *Med Hypotheses*. 2009 Feb 1;72(2):223.
  9. Faucher S, Déry-Rouleau G, Bardin M, Morin M. Investigating the role of the pelvic floor muscles in sexual function and sexual response: a systematic review and meta-analysis. *J Sex Med*. 2024 Mar 1;21(3):217–39.
  10. Gao L, Xie B, Zhu H, Zhang D, Fu X, Li H, et al. Association between pelvic floor muscle strength and sexual function based on PISQ-12—an analysis of data from a multicenter cross-sectional study on 735 nulliparae during pregnancy. *Front Med* [Internet]. 2023 Apr 25 [cited 2025 Aug 14];10. Available from: <https://www.frontiersin.org/journals/medicine/articles/10.3389/fmed.2023.1093830/full>
  11. Graber B, Kline-Graber G. Female orgasm: role of pubococcygeus muscle. *J Clin Psychiatry*. 1979 Aug;40(8):348–51.
  12. Shafik A. Vagino-levator reflex: description of a reflex and its role in sexual performance. *Eur J Obstet Gynecol Reprod Biol*. 1995 Jun;60(2):161–4.
  13. Shafik A. The role of the levator ani muscle in evacuation, sexual performance and pelvic floor disorders. *Int Urogynecol J Pelvic Floor Dysfunct*. 2000 Dec;11(6):361–76.
  14. Ashton-Miller JA, DeLancey JOL. Functional anatomy of the female pelvic floor. *Ann N Y Acad Sci*. 2007 Apr;1101:266–96.
  15. Nilsson M, Lalos O, Lindkvist H, Lalos A. How do urinary incontinence and urgency affect women's sexual life? *Acta Obstet Gynecol Scand*. 2011;90(6):621–8.
  16. Weinberger JM, Houman J, Caron AT, Anger J. Female Sexual Dysfunction: A Systematic Review of Outcomes Across Various Treatment Modalities. *Sex Med Rev*. 2019 Apr 1;7(2):223–50.
  17. Kingsberg SA, Althof S, Simon JA, Bradford A, Bitzer J, Carvalho J, et al. Female Sexual Dysfunction—Medical and Psychological Treatments, Committee 14. *J Sex Med*. 2017 Dec 1;14(12):1463–91.
  18. Zoumpas I. (003) New Treatment Approach for Female Sexual Dysfunction by Transvaginal Shockwave Therapy (TVST). *J Sex Med*. 2023 May 1;20(Supplement\_1):qdad060.003.
  19. Moraes AVG de, Costa-Paiva L, Machado H da C, Pedro AO. Sexual function after treatment with non-invasive radiofrequency device for improvement of the genitourinary syndrome of menopause: A multi-arm randomized clinical trial. *Eur J Obstet Gynecol Reprod Biol*. 2025 Mar 1;306:117–24.
  20. Rosenbaum TY. Pelvic Floor Involvement in Male and Female Sexual Dysfunction and the Role of Pelvic Floor Rehabilitation in Treatment: A Literature Review. *J Sex Med*. 2007 Jan 1;4(1):4–13.
  21. Singh CK, Deshpande J. Emsella: A breakthrough, non invasive technology for treatment of incontinence. *Indian J Obstet Gynecol Res*. 2023 May 28;10(2):224–6.
  22. Silantyeva E, Zarkovic D, Astafeva E, Soldatskaia R, Orazov M, Belkovskaya M, et al. A Comparative Study on the Effects of High-Intensity Focused Electromagnetic Technology and Electrostimulation for the Treatment of Pelvic Floor Muscles and Urinary Incontinence in Parous Women: Analysis of Posttreatment

- Data. *Female Pelvic Med Reconstr Surg*. 2021 Apr 1;27(4):269–73.
23. Elena S, Dragana Z, Ramina S, Evgeniia A, Orazov M. Electromyographic Evaluation of the Pelvic Muscles Activity After High-Intensity Focused Electromagnetic Procedure and Electrical Stimulation in Women With Pelvic Floor Dysfunction. *Sex Med*. 2020 Jun 1;8(2):282–9.
  24. Samuels JB, Guerette N. HIFEM technology – The non-invasive treatment of urinary incontinence. In: *Energy-based Medicine and Science*. 2018. p. S43–S43.
  25. Duncan D, Dinev I. Noninvasive Induction of Muscle Fiber Hypertrophy and Hyperplasia: Effects of High-Intensity Focused Electromagnetic Field Evaluated in an In-Vivo Porcine Model: A Pilot Study. *Aesthet Surg J*. 2020 Apr;40(5):568–74.
  26. Bader A, Papadopoulou M. The Non-invasive HIFEM Procedure for Improvement of Women's Sexual Function. In Paris, FR; 2020.
  27. Brandeis J. Improving Male Pelvic Health: Efficacy of HIFEM Muscle Stimulation for Urinary Function and Sexual Dysfunction in Men. *Reprod Syst Sex Disord Curr Res*. 2024 Mar 1;13(1):1–6.
  28. Brandeis J, Lu S. 133 Pelvic Floor HIFEM in Men Improves Ejaculation. *J Sex Med*. 2022 Apr 1;19(Supplement\_1):S69.
  29. Duncan D. The Improvement in Quality of Life and Core Muscle Strength in Elderly Patients by Simultaneous Application of HIFEM with Synchronized Radiofrequency. *J Geriatr Med Gerontol*. 2023 Sep 11;9(2):151.
  30. Samuels JB, Pezzella A, Berenholz J, Alinsod R. Safety and Efficacy of a Non-Invasive High-Intensity Focused Electromagnetic Field (HIFEM) Device for Treatment of Urinary Incontinence and Enhancement of Quality of Life. *Lasers Surg Med*. 2019;51(9):760–6.
  31. Guerette N, Molden S, Gopal M, Kohli N. Randomized Trial of HIFEM Pelvic Floor Stimulation Device Compared with Pelvic Floor Exercises for Treatment of Urinary Incontinence. *J Womens Health Care*. 2023;12(9).
  32. Singhal D, Gopal M. HIFEM procedure for Treatment of Persistent Urinary Incontinence Post Pelvic Organ Prolapse and Anti-Incontinence Surgery. *J Womens Health Care*. 2023 Dec 27;12(12):1–5.
  33. Azevedo C, Mata LRF da, Izidoro LC de R, Moura C de C, Araújo BBA, Pereira MG, et al. Effectiveness of auricular acupuncture and pelvic floor muscle training in the management of urinary incontinence following surgical treatment for prostate cancer: A randomized clinical trial. *Eur J Oncol Nurs [Internet]*. 2024 Feb 1 [cited 2025 Aug 14];68. Available from: [https://www.ejncologynursing.com/article/S1462-3889\(23\)00224-7/abstract](https://www.ejncologynursing.com/article/S1462-3889(23)00224-7/abstract)
  34. Fitz FF, Costa TF, Yamamoto DM, Magalhães Resende AP, Stüpp L, Ferreira Sartori MG, et al. Impact of pelvic floor muscle training on the quality of life in women with urinary incontinence. *Rev Assoc Médica Bras Engl Ed*. 2012 Mar 1;58(2):155–9.
  35. Silva RRL, Coutinho JFV, Vasconcelos CTM, Neto JAV, Barbosa RGB, Marques MB, et al. Prevalence of sarcopenia in older women with pelvic floor dysfunction. *Eur J Obstet Gynecol Reprod Biol*. 2021 Aug 1;263:159–63.
  36. Shao FX, Luo WJ, Lou LQ, Wan S, Zhao SF, Zhou TF, et al. Associations of sarcopenia, obesity, and metabolic health with the risk of urinary incontinence in U.S. adult women: a population-based cross-sectional study. *Front Nutr [Internet]*. 2024 Oct 14 [cited 2025 Aug 14];11. Available from: <https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2024.1459641/full>
  37. Duncan D. Reduction of Sarcopenia Using HIFEM and RF in Two Age Stratified Cohorts: A Prospective Clinical Trial. *Am J Biomed Sci Res*. 2023 Mar 30;18(3):222–7.
  38. Kobayashi T, China T, Takazawa N, Shimizu F, Fink J, Horie S, et al. Therapeutic Effect of Magnetic Stimulation Therapy on Pelvic Floor Muscle Dysfunction [Internet]. 2021. 128 p. Available from: <https://www.intechopen.com/chapters/78192>
  39. Silantyeva E, Zarkovic D, Soldatskaia R, Astafeva E, Mekan O. Electromyographic Evaluation of the Pelvic Muscles Activity After High-Intensity Focused Electromagnetic

Procedure and Electrical Stimulation in Women With Pelvic Floor Dysfunction. *Sex Med.* 2020 Jun 1;8(2):282–9.

40. Stamos D, Sapouna V, Astraka KM, Thanopoulou S, Giannakis I, Pantou A, et al. Female Sexual Function and Pelvic Floor Muscle Training: A Narrative Review. *Cureus* [Internet]. 2025 Jun 11 [cited 2025 Dec 12];17(6). Available from: <https://cureus.com/articles/376937-female-sexual-function-and-pelvic-floor-muscle-training-a-narrative-review>
41. Hwang UJ, Kwon OY, Lee MS. Effects of surface electrical stimulation during sitting on pelvic floor muscle function and sexual function in women with stress urinary incontinence. *Obstet Gynecol Sci.* 2020 May;63(3):370–8.
42. Lowenstein L, Gruenwald I, Gartman I, Vardi Y. Can stronger pelvic muscle floor improve sexual function? *Int Urogynecology J.* 2010 May 1;21(5):553–6.
43. Martinez CS, Ferreira FV, Castro AAM, Gomide LB. Women with greater pelvic floor muscle strength have better sexual function. *Acta Obstet Gynecol Scand.* 2014 May;93(5):497–502.
44. Bø K, Talseth T, Vinsnes A. Randomized controlled trial on the effect of pelvic floor muscle training on quality of life and sexual problems in genuine stress incontinent women. *Acta Obstet Gynecol Scand.* 2000;79(7):598–603.
45. Lowenstein L, Gruenwald I, Gartman I, Vardi Y. Can stronger pelvic muscle floor improve sexual function? *Int Urogynecology J.* 2010 May 1;21(5):553–6.
46. Blanco-Ratto L, Ramírez-García I, Kauffmann S, Farrés MG. Effectiveness of physiotherapy and its impact on the quality of life of patients compared to other therapeutic approaches in the management of female sexual dysfunction in non-menopausal adult population: a systematic review. *Sex Med Rev.* 2025 Jul 1;13(3):338–46.
47. Boris DA, Apolikhina IA, Evstegneeva AS. Features of development of pelvic floor dysfunction in women and possibilities of its correction with the help of focused electromagnetic field. *WOMENS Health Reprod.* 2024;4(65).