

# Pelvic floor physical therapy: More than Kegels

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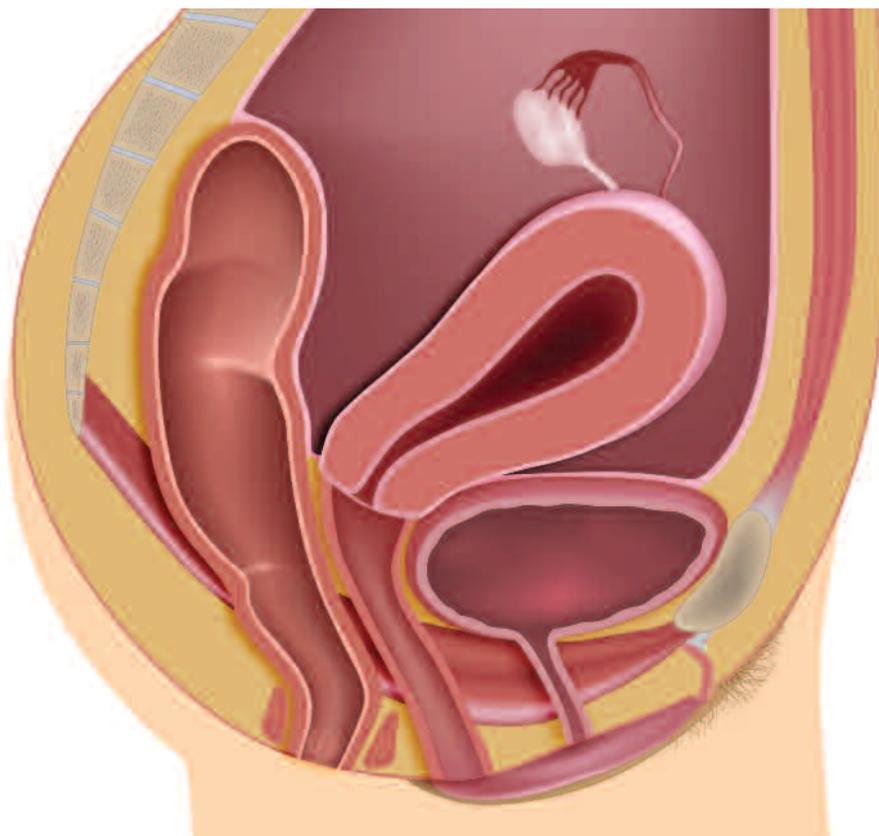
Nurse practitioners commonly see patients with disorders or symptoms related to pelvic floor muscle (PFM) dysfunction who may be candidates for pelvic floor physical therapy. In this article, the authors discuss their approach to the evaluation and treatment of these patients. The aim of this collaboration between NP and pelvic floor physical therapist is to improve health outcomes and quality of life for women with PFM dysfunction.

**KEY WORDS:** pelvic floor physical therapy, pelvic floor muscle dysfunction, pelvic pain, urinary dysfunction, bowel dysfunction

Nurse practitioners (NPs) who provide care for women see many patients who have symptoms that are related, at least in part, to dysfunction of the pelvic floor muscles (PFMs). Understanding of the pelvic floor structure, and how dysfunction of the muscles in this area contributes to gynecologic, urinary, and gastrointestinal problems, is important in both making diagnoses and formulating treatment plans. In these cases, a physical therapist who specializes in pelvic floor dysfunction can be a valuable partner in both confirming the diagnosis and providing therapy. Collaboration between NP and physical therapist can improve health outcomes and quality of life (QOL) for women who have discomfort, pain, and interruption of activities of daily living because of PFM dysfunction.

## Pelvic floor physical therapy

The pelvic floor consists of a group of muscles that work to provide support to visceral organs, resistance to intra-abdominal pressure, maintenance of continence, and performance of sexual functions.<sup>1,2</sup> The levator ani and coccygeus make up the deep pelvic floor (*Figure 1*), which acts like a hammock, attaching from the pubic bone and slinging back to the coccyx and sacrum. The rectum, urethra, and vagina all pass through the pelvic floor; dysfunction in the PFMs can affect any or all of these structures (*Figure 2*). Females of any age and in any life stage, including pregnant women,<sup>3</sup> postpartum women,<sup>4</sup>



elderly women,<sup>5</sup> and even girls,<sup>6</sup> can experience PFM dysfunction. Many females with PFM dysfunction can benefit from pelvic floor physical therapy (PT).\*

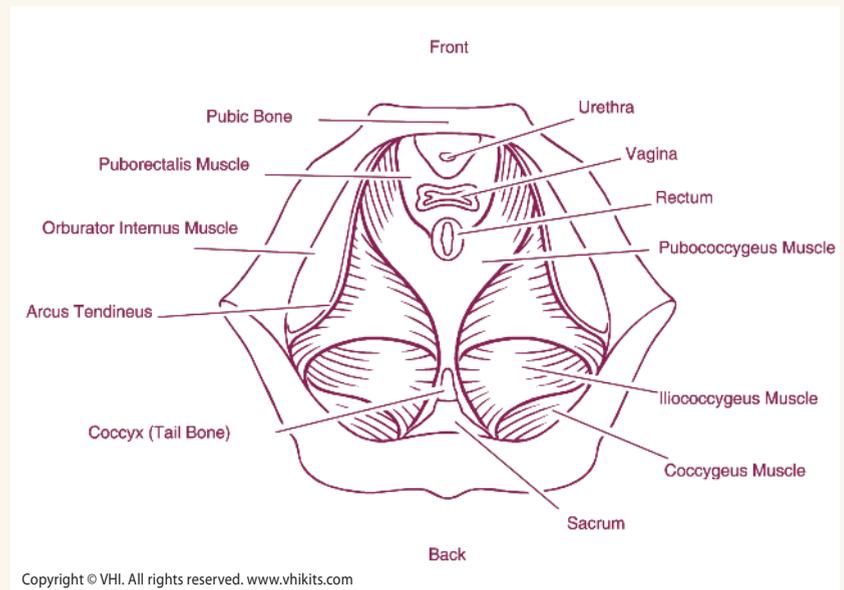
Pelvic floor PT addresses the muscles, ligaments, connective tissues, lymphatic system, and joints inside and surrounding the pelvic girdle, often in intimate regions that few people associate with muscles. Pelvic floor PT is similar to other types of PT in that the focus is on movement disorders such as hypermobility and hypomobility. The main goal of pelvic floor PT is to promote maximal function and QOL, specifically pertaining to muscles that can influence basic activities of daily life such as urination, defecation, and sexual activity.<sup>7</sup>

### Common diagnoses warranting referral to pelvic floor physical therapists

Pelvic floor physical therapists assess and treat a variety of conditions, including urinary/fecal urgency, frequency, and incontinence; constipation; pelvic organ prolapse; and prenatal and postpartum conditions such as low back pain, sacroiliac pain, and diastasis recti. In addition, they can treat pain in the abdomen, low back, or pelvis that arises during

\*Editor's note: In the current online issue of *Women's Healthcare: A Clinical Journal for NPs*, Aimee Chism Holland, DNP, WHNP-BC, NP-C, RD; Deborah Kirk Walker, DNP, FNP-BC, NP-C, AOCN; Sigrid Ladores, PhD, PNP; and Karen Meneses, PhD, RN, FAAN discuss fertility preservation for young cervical cancer survivors. In their article, these authors recommend consultation with a pelvic floor physical therapist, among other specialists, for cervical cancer survivors who are experiencing sexual problems related to their disease and/or its treatment.

Figure 1. Deep layer pelvic floor muscles



Pelvic floor PT results in significant reductions in both symptom-related distress and symptom impact.

urination, defecation, sexual activity, or even just sitting. These physical therapists have advanced training in the pelvic floor to evaluate and treat joint dysfunction, muscle imbalances, and nerve entrapment, which can contribute to the aforementioned complaints. Some of the most common referrals to pelvic floor physical therapists are for management of the symptoms of urinary incontinence (UI), chronic pelvic pain (CPP), constipation, and pelvic organ prolapse.

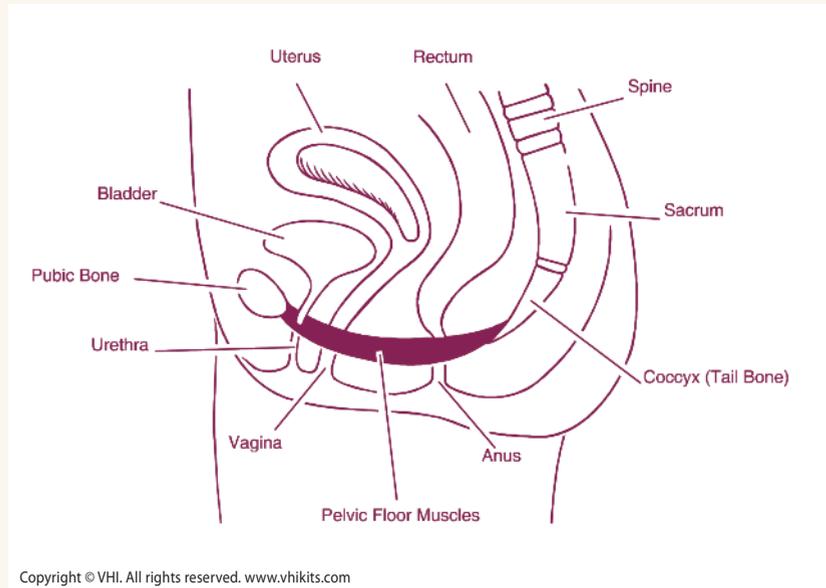
### Urinary incontinence

Urinary incontinence affects approximately 19% of women aged 19-44 years, 25% of those aged 45-64 years, and 30% of those aged 65 years or older.<sup>8</sup> Pelvic floor physical therapists can instruct patients in pelvic floor strengthening exercises to address muscle weakness and/or over-activity that contributes to UI. Research supports the recommendation that PFM training be included in first-line conservative management programs for women with stress, urge, or mixed UI.<sup>9</sup> Pelvic floor PT results in significant reductions in both symptom-related distress and symptom impact.<sup>10</sup>

### Chronic pelvic pain

Chronic pelvic pain is defined as pelvic pain lasting more than 6 months. The list of specific diagnoses that fall under the CPP umbrella is quite extensive and includes dyspareunia, vulvodynia, vaginismus, endometriosis, pudendal neuralgia, and interstitial cystitis. CPP affects 14%-24% of women during the reproductive

**Figure 2.** Side view of pelvic floor muscles



years.<sup>11</sup> This pain can manifest as urinary frequency/urgency, a sensation of incomplete emptying of the bladder, decreased urine flow, constipation, burning and pain in the pelvic area, pain during and/or following intercourse, and pain in the low back and hips. Physical therapists who specialize in pelvic floor PT can address the muscular and skeletal dysfunctions that are contributing to CPP. The musculoskeletal (M-S) system has been found to be involved in the genesis and perpetuation of CPP; in fact, strong evidence indicates that 80% of women with CPP present with dysfunction of the M-S system.<sup>12</sup>

### **Constipation**

Constipation is one of the most common gastrointestinal problems in the United States, affecting up to 28% of the population.<sup>13</sup> Persons of any age, race, or sex can experience constipation, but it is most prevalent in women and greatly increases in persons older than 70. Constipation can result from impaired muscle coordination or

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overactivity around the rectum and anus, which can delay stool evacuation.<sup>14</sup> Pelvic floor physical therapists can assist with muscle retraining through biofeedback and rectal neuromuscular training<sup>9</sup> to address these deficits and improve ease of defecation.

### **Pelvic organ prolapse**

This disorder, which results from relaxation of the PFM and supportive tissues of the vaginal walls, may affect up to 60%-65% of premenopausal primiparous women.<sup>15,16</sup> Pelvic organ prolapse occurs when one or more organs such as the bladder, uterus, or rec-

tum descend from their normal position within the pelvis. This phenomenon may occur as a result of injuries sustained during childbirth, aging, a woman's tissue composition, chronic coughing, straining due to chronic constipation, and repetitive heavy lifting. Patients may experience a sensation of pelvic pressure, low back pain, a protrusion from the vaginal opening, and/or discomfort during intercourse. Pelvic floor physical therapists can provide education and lifestyle modifications to prevent the prolapse from worsening, as well as address muscle weakness that may be present to increase support to the organs.

### **Pelvic floor physical therapy evaluation and treatment**

Nurse practitioners who refer a patient to a pelvic floor PT clinic can lessen the patient's anxiety by explaining what to expect from PT. The patient may feel relieved to be able to freely discuss a pelvic floor problem with someone who is well versed in bladder, bowel, and sexual dysfunction related to M-S dysfunction. At the first visit, the physical therapist will take a thorough history and perform an examination. The examination will likely entail an assessment of the PFM, which may be performed vaginally, rectally, or simply by external palpation or visual assessment. An internal examination of the PFM will allow the physical therapist to assess PFM strength, endurance, coordination, and tissue quality.

An external examination may include assessment of the spine, hip joints, sacroiliac joints, and connective tissue around the abdomen, hips, inner thighs, buttocks, hamstrings, external genitalia, and/or anus. The therapist

will take note of any hypermobility or hypomobility in the joints and in the soft tissue, which can create problems in the PFMs. Based on the history and examination findings, the physical therapist will tailor a treatment plan to help the patient work toward her goals. PT diagnoses can generally be divided into two categories, those that involve weakness and those that involve increased tension.<sup>17</sup> Although these two categories may seem to be discrete entities, some patients present with both muscle weakness and muscle tension.

Diagnoses that involve weakness of the pelvic floor can include UI or fecal incontinence, pelvic pressure or pain, and difficulty with bladder and bowel elimination. Treatment for these conditions generally focuses on attaining control of the pelvic floor and the surrounding musculature to develop strength, endurance, and coordination and to stabilize and control the pelvis and trunk as a system.<sup>18</sup>

Pelvic floor exercises are typically initiated in gravity-assisted or minimized positions and progress to sitting, then to standing, and eventually to functional movements such as bending, squatting, and lifting, depending on the patient's diagnosis and functional limitations. In addition, addressing muscle groups such as the transverse abdominis, multifidi, adductors, and respiratory diaphragm can help provide pelvic stability and enhance a pelvic floor contraction.<sup>19,20</sup> If a patient cannot voluntarily perform a pelvic floor contraction, neuromuscular electrical stimulation can be used, either via external electrodes at the perianal tissues or with an internal vaginal or rectal probe, to elicit a

contraction or enhance a very weak contraction.<sup>21</sup>

Many patients seen by pelvic floor physical therapists have pain related to muscle tension in the pelvic floor. Patients may experience pain with sitting, sexual intercourse, tampon insertion, and/or gynecologic examination and/or they may have difficulty with evacuating urine or stool. Many patients subconsciously clench muscles in their abdomen and pelvic floor,<sup>22</sup> which can lead to joint dysfunction, tightness or imbalance in muscle groups, and nerve entrapment.<sup>23</sup> Teaching patients breathing patterns to

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achieve a drop of the diaphragm and pelvic floor can encourage relaxation and decrease pain during bladder and bowel evacuation or vaginal penetration.<sup>24</sup>

Manual therapy, including techniques such as myofascial release and connective tissue manipulation, is also used to address pain related to PFM tension.<sup>25</sup> Manual therapy techniques involve forceful passive movement of the fascial elements through restrictive directions, allowing for muscular relaxation or decreasing painful scar tissue attachment, increasing general circulation, free-

ing tissue material, and releasing nerve entrapment by surrounding structures.<sup>7</sup>

Surface electromyography or biofeedback is utilized to enable patients to receive auditory and/or visual feedback on the contraction and relaxation of the PFMs while performing exercise and movements.<sup>26</sup> Use of biofeedback can help patients develop an internal awareness of the state of the muscles to be used with daily activities and aid them in achieving higher or lower muscle tone, depending on their diagnosis.<sup>27</sup>

Throughout treatment for muscle weakness or tension, attention is given to educating patients about practical methods they can use to ease their symptoms. These methods include simple changes in the diet (e.g., eliminating carbonated beverages, acidic foods, artificial sweeteners, and alcohol), biomechanical changes with day-to-day tasks (e.g., correctly transitioning from sitting to standing, correctly retrieving items off the ground to avoid an increase in pressure on the pelvic floor), and assuming positions to maximize efficiency of bladder and bowel elimination.<sup>28</sup> To reinforce the benefits of techniques used in the clinic, patients receive instructions in a home exercise program, which will enable them to eventually progress to independent management.<sup>29</sup>

### **Physical therapy frequency and duration**

With any type of PT, the length of time before any positive results can be appreciated varies from person to person, depending on the diagnosis and the severity of symptoms. However, a general rule is that patients with pain conditions may need up to 8 treatments

to notice any improvement and up to 12 treatments to see functional or QOL-altering changes. For patients with incontinence diagnoses, a favorable change can be expected at about 6 weeks, if not sooner. These time frames are generally related to the length of time needed to make physiologic adaptations in muscle tissue.

The typical frequency of visits to PT is once or twice a week, again depending on symptom severity. As a patient improves, the frequency of visits is tapered to weekly, then every other week, and then monthly until she is ready for discharge from PT care. Some patients complete PT and achieve symptom resolution in 3 months. For others, PT helps manage symptoms of an incurable disease so that they can continue performing their activities of daily living, recreational tasks, and work-related activities with less severe or less frequent symptoms.

## Conclusion

Many women with problems related to PFM dysfunction see their NP as the initial healthcare provider. Because many of these patients can benefit from pelvic floor PT, it is to their advantage if their NP has a close working relationship with a physical therapist who specializes in pelvic floor PT. The best patient outcomes are promoted through ongoing NP–physical therapist collaboration, because management will likely include a combination of PT, pharmacotherapy, patient education, and counseling.

It is appropriate to refer a patient for pelvic floor PT for most M-S diagnoses related to the bladder or bowel, pelvic pain, or prenatal or postpartum conditions. The NP may consult with the physical therapist

prior to a referral if there is a question as to whether a particular patient is a good candidate for PT.

To facilitate the search for a physical therapist with training in managing patients with pelvic floor diagnoses, readers can use state-by-state physical therapist locators available at the **American Physical Therapy Association Section on Women's Health website<sup>A30</sup>** and the **Herman and Wallace Pelvic Rehabilitation Institute website<sup>B31</sup>**.

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## Web resources

- A. <http://www.womenshealthapta.org/pt-locator/>
- B. <http://hermanwallace.com/practitioner-directory>

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31. Herman and Wallace Pelvic Rehabilitation Institute. <http://hermanwallace.com/practitioner-directory>

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