

VISION

THE INTERNATIONAL PELVIC PAIN SOCIETY
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The Role of Physical Therapy in the Treatment of Pudendal Neuralgia (Part Two of a Two-Part Series)

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Physical therapists provide services to patients who have impairments, functional limitations, disabilities, or changes in physical function and health status resulting from injury or disease.¹ The following chart depicts the impairments, functional limitations, and disabilities that patients with pudendal neuralgia encounter.

Impairments	Functional Limitations	Disabilities
Pelvic Floor Dysfunction	Decreased sitting tolerance	Inability to work
Connective Tissue Restrictions	Urinary urgency and frequency	Inability to attend school
Myofascial Trigger Points	Pain during or after voiding; slow, hesitant or interrupted urinary stream	Inability to maintain relationships
Muscle Hypertonicity	Pain before, during, or after bowel movements	Inability to care for self
Adverse Neural Tension	Constipation and difficulty evacuating	Inability to meet financial responsibilities
Structural/Biomechanical Abnormalities	Difficulty with ADLs (cooking, cleaning, driving)	Inability to care for dependents
Depression and Anxiety	Decreased tolerance for exercise	Inability to engage in intercourse
Central Sensitization	Sexual dysfunction	

External Muscle Hypertonicity and Myofascial Trigger Points (MTrPs)
 All skeletal muscles between the ribs and the knees must be examined by the physical therapist for MTrPs and hypertonicity. A MTrP is defined as a self-sustaining injury that occurs at the motor end plate when muscle fibers are overloaded. It is a hyperirritable spot, usually within a taut band of skeletal muscle or in the muscle's fascia, that is painful on compression and causes characteristic referred pain, tenderness, and autonomic phenomena (including the above-mentioned connective tissue changes).²

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These points cause local and referred pain and are present in almost all patients diagnosed with pudendal neuralgia, PNE, and persistent postoperative pain. Common MTrP sites include the rectus abdominus, erector spinae, gluteus minimus, medius, and maximus, obturator internus, pectineus, and quadratus lumborum. The MTrPs produce symptoms that mimic pain patterns similar to that of an inflamed pudendal nerve. For example, the defined referral pattern for the obturator internus is anatomically similar to the location of pain described in patients with the ischial tuberosities, gluteal fold, and tailbone.³

MTrPs respond to manual therapy, dry needling, and trigger point injections. Manual therapy is initially painful to the patient. Once the MTrP is identified, the therapist will apply sustained pressure as the patient concentrically contracts the involved muscle repetitively.

Identification of the trigger points will result in less pain and improved urinary, bowel and sexual function.

Pelvic Floor Dysfunction

A trained physical therapist will perform an internal physical exam on the patient either per the vagina or rectum. The therapist will examine the length and strength of the pelvic floor muscles and the pudendal nerve for Tinel's sign. In addition, the clinician will examine the connective tissue mobility at the vaginal and rectal opening, around the urethra, perineum, and tendinous arch and assess the patient's motor control.

Patients with pudendal neuralgia almost always present with a "short" pelvic floor. In other words, the muscles have become tightened and to a degree the muscles can concentrically contract or eccentrically lengthen is compromised. The muscles are often painful to touch and can be a source of pain themselves. Furthermore, the shortened pelvic floor compresses the pudendal nerve, compresses visceral structures causing urinary and bowel dysfunction, causes difficult and/or painful defecation, and gives the sensation of a "foreign object" in the rectum/vagina.

Treatment involves myofascial release of the short muscles and proprioceptive neuromuscular facilitatory techniques to help the muscles lengthen via reflexive inhibition. Restricted internal connective tissue should be mobilized. Patients must re-develop the ability to concentrically contract and eccentrically lengthen the pelvic floor as well as allow for full relaxation. Treatment and home exercises focus on lengthening the muscles and facilitating muscle relaxation. Contrary to historical teaching, Kegel exercises are contraindicated for this population because they contribute to further neural compression and muscle shortening.

Reversible Neural Tension on Peripheral Nerves

Neural tension is defined as an abnormal physiological and mechanical response produced from nervous system structures when their normal range of movement and stretch capabilities are tested.⁴ Tight muscles, connective tissue restrictions, and anatomical narrowing of spaces such as Alcock's canal can contribute to neural tension. A physical therapist will evaluate neural tension by lengthening the nerve or distracting imposing tissues. When the test is positive the patient will report feeling burning or stabbing in the distribution of the nerve. In addition to pudendal neuralgia and pelvic pain syndromes, a therapist should examine (at least) the pudendal, sciatic, femoral, posterior tibial, peroneal, ilioinguinal, iliohypogastric and obturator nerves. Manual therapy techniques termed "neural mobilizations" are used to restore restricted spaces and restore mobility to peripheral nerves. Successful mobilizations will result in less pain in the distribution of the nerve and improved urinary, bowel, and sexual functioning.

Pelvic Mechanics and Structure

Structural and biomechanical deviations can cause pelvic pain and be a source of pudendal neuralgia.⁵ Sacroiliac joint dysfunction, pelvic obliques, lumbar spine pathology, leg length discrepancies, and joint mobility should be examined in all patients with pelvic pain.

In the case of sacroiliac joint dysfunction, abnormal joint positions such as an innominate rotation will result in increased tension on the ligaments through which the pudendal nerve passes. As a result, the

ligaments may compress or shear the nerve and lead to inflammation. Treatment involves manual therapy techniques to correct joint deviation and a home exercise program to strengthen and re-educate the muscles to maintain proper joint position and stability.

It is common to find sacroiliac joint hypermobility in patients following a transgluteal decompression procedure. It is important to note that the hypermobility could have been present before the surgery.

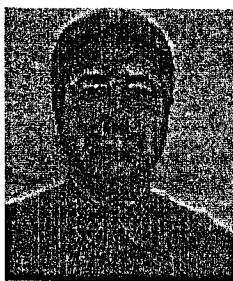
Conclusion

Commonly, clinicians attribute the symptoms of pudendal neuralgia primarily to potential points of nerve entrapment. In actuality, the impairments extend well beyond the path of the pudendal nerve and include structural, muscular, and connective tissue dysfunctions. It is primarily the role of a physical therapist to treat the musculoskeletal deviations, as it is the role of a psychologist to treat anxiety and depression and the role of a physician to prescribe medication and perform injections and surgery. The impairments associated with pudendal neuralgia require each of these interventions to yield a successful outcome for the patient.

References

1. American Physical Therapy Association (1998). *The guide to physical therapist practice*. Alexandria, American Physical Therapy Association.
2. Travell J, Simons D (1983). *The trigger point manual*. Vol 1. Baltimore, Williams and Wilkins.
3. Travell J, Simons D (1992). *The trigger point manual*. Vol 2. Baltimore, Williams and Wilkins.
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The President's Perspective



Alfredo Nieves, MD

It has been a wonderful year! We are getting ready for our annual meeting in October and this is my last address to you as president of the society. During this last year, we have accomplished some of the goals that I set forth when I took office. For example, we implemented a list serve as a membership benefit and we are working on developing the society's clinical opinion on pelvic congestive syndrome. I'd like to thank WJ Weiser & Associates for their hard work and dedication towards the management of our society. I look forward to this upcoming meeting, which has very interesting topics, and also look forward to the continued growth of our society. It has been an honor and a pleasure serving in this position and look forward to serving the society's needs in whatever role I could be of help.

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