

# Chronic Pelvic Pain in Men – The physiotherapist’s perspective

Maeve Whelan, Specialist Chartered Physiotherapist, Milltown Physiotherapy Clinic

## Background

Millions of men and women suffer from chronic pelvic pain (CPP). The symptoms are of rectal, genital or abdominal pain or discomfort, pain or discomfort associated with sexual activity and often symptoms of urinary frequency, urgency and hesitancy. Chronic prostatitis (CP) is poorly understood, often inadequately treated and extremely bothersome to patients with this diagnosis. It is one of the most common diseases diagnosed by urologists in clinical practice. It is generally recognised that the confusion surrounding the diagnostic and treatment strategies in this disease is related to the lack of uniformity in the definition, entry criteria, classification system and outcome measures in the many small poorly designed prostatitis studies available in the literature (2). The consensus classification of prostatitis is outlined in Fig 1 (1)

Category 1: Acute bacterial prostatitis
Category 2: Chronic bacterial prostatitis
Category 3: Chronic pelvic pain syndrome
A Inflammatory
B Non inflammatory
Category 4: Asymptomatic inflammatory prostatitis

Fig1. Classification of prostatitis

The broader definitions of chronic pelvic pain are outlined in the European Association of Urology guidelines (3). This classification is set out on a series of axes in an effort to suggest avenues for further management, see Fig 2. In the US the term for these syndromes is chronic prostatitis (CP)/ chronic pelvic pain syndrome (CPPS) as defined by the NIDDK in 2007 under the umbrella term of urologic chronic pelvic pain syndromes (UCPPS). The incidence of CPP is quoted as being between 2.6% (4) and 6.3% (5).

Axis I Region	Axis II System	Axis III End organ as pain syndrome	Axis IV Referred charact- eristics	Axis V Temporal charact- eristics	Axis VI Charact- er	Axis VII Assoc sympt	Axis VIII Psych sympt
Chronic pelvic pain	Urolog ic	Bladder pain syndrome	Suprapubic	ONSET	Aching	URINA	Anxiety
Chronic pelvic pain syndrome		Urethral pain syndrome	Inguinal Urethral Penile Perineal	Acute Chronic	Burning Stabbing Electric Other	RY Frequen cy Nocturia Hesistan ce Poor	Depressio n Shame Guilt
		Prostate pain Syndrome Penile pain	Rectal Back Buttocks	ONGOIN G Sporadic Cyclical			

		syndrome Testicular pain syndrome Epididymal pain syndrome Post vasectomy pain syndrome		Continuou s  TIME Filling Emptying Immediate post Late post		flow Pis en deux Urge Urgency Incontin ence Other	PTSD symptoms
--	--	---	--	--	--	--	------------------

Fig 2. European Association of Urology guidelines on CPP

## CPP – a diagnosis of exclusion

CP/CPPS should be viewed as more than an organ specific disease but rather a biopsychosocial disorder where the central problem is pain. Typically the patient who ends up in a physiotherapy clinic will have failed all medical treatments, this is the patient group that is presented here. The patient will have had a full examination by the GP and urologist including the following:

Physical examination of abdomen and organs, prostate examination, prostate massage for collection of prostate fluid for testing, ruling out of any urethral prostate or bladder disease. He may have had serum lab test PSA. Cystoscopy, transrectal ultrasound, CT scans, urodynamic studies or MRI may all have been done. Where antibiotics, alpha-blocking agents and anti-inflammatory agents have failed other medication may have been tried, medications for neuropathic pain, medications to treat muscle spasticity and medications that are also used to treat interstitial cystitis or bladder pain syndrome. Surgeries may include anaesthetic injection for diagnosis as well as for treatment, neuromodulation or botulinum toxin and bladder neck incision may also be tried.

## Pain mechanisms in CPP

The primary presenting symptom with all these patients is pain, there is usually no actual tissue damage. The mechanism for the setting up of pain starts with “noxious stimuli” increasing production of pain promoting substances at nerve free endings of primary afferent nociceptors, there is release of neuro peptides, nitric oxide substance P, calcitonin gene-related protein amongst other substances leading to neurogenic inflammation, vasodilation, oedema and hyperalgesia. Referred pain is felt in another part of the body than where the pain originates. Visceral referred pain is thought to happen when the organ is innervated by the same nerves that innervate a somatic dermatome or myotome. Convergence occurs when neuronal changes occur in an area of referred pain, which then becomes sensitised and or in which neuroinflammation occurs (6). This in turn will lead to sensitisation of the spinal cord and supraspinal structures by means of continued nociceptive afferent barrage. Underlying this mechanism there will always be a series of trigger points in the affected tissue.

### *The nature of a trigger point*

The most recognised description of a trigger point is that by Travell & Simons (7). “ A hyperirritable spot, usually within a taut band of skeletal muscle or in the muscle fascia, that is painful on compression and that can give rise to characteristic referred pain, tenderness and autonomic phenomena.” It may be active or latent and may or may not elicit a twitch response. When there are trigger points in a muscle, the muscle will weaken and cannot accomplish full range of motion, muscle and fascia contract establishing shortened position, surrounding muscle groups compensate, become overloaded and develop trigger points. The integrity of the dysfunctional endplates within the trigger area is mechanically disrupted in order to inactivate a trigger point resulting in mechanical and physiological resolution. Ischaemic pressure, stretch , connective tissue manipulation, dry needling, injection are the treatment options.

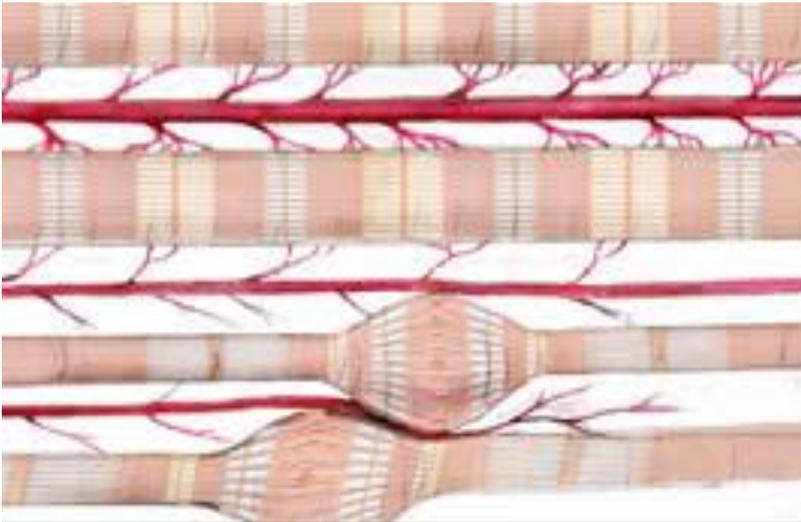


Fig 2. Travell & Simons 1999

### ***Connective tissue restrictions***

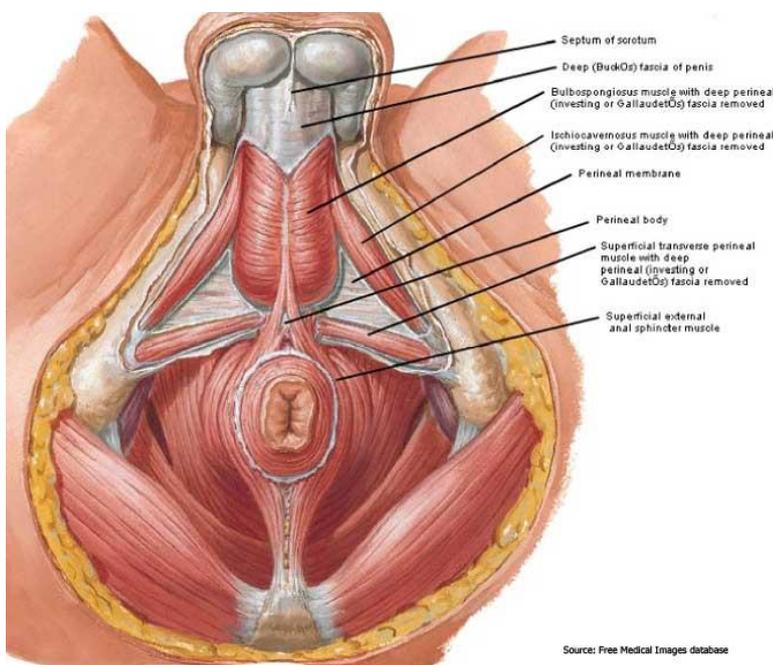
The viscerosomatic reflex was first documented in 1894 by Henry Head (8) and this reference is still used in teaching today. Connective tissue restrictions will occur as a result of visceral referred pain in dermatomes associated with the nerve roots of an inflamed peripheral nerve, superficial to muscles with myofascial trigger points, superficial to areas of joint dysfunction. Connective tissue restrictions can be present with or without hyperalgesia. In manipulating the connective tissue to release it, the goals are to improve circulation, restore tissue integrity, decrease ischemia, reduce chemical irritants, eliminate adverse reactions in viscera and decrease adverse neural tension of peripheral nerve branches.

### **Neuromuscular evaluation**

A study by Anderson et al in 2009 (9) of 72 men with symptoms of UCPP described in the detail the location of trigger points and the areas of referral. Tenderness of the pubococcygeus and puborectalis were associated with highest scores on the visual analogue scale. These muscles elicited pain in the penis in 93% of patients. The most reactive muscle were the rectus abdominis and the external obliques and palpation of these sites elicited pain in the penis , the perineum, the rectum and the suprapubic area. Coccyx or buttock pain could be elicited by palpation of the gluteus maximus.

The musculoskeletal causes and associations with chronic pelvic pain are poor posture often associated with sedentary jobs, coccyx injury, sports e.g. cyclists, gym/abdominal over trainers, abdominal holders and holding patterns associated with stress.

Physiotherapy assessment of the patient with CPP involves a full musculoskeletal examination of the pelvis, lumbar spine, thoracic spine, the abdomen, hips, laterally thighs and inner thighs. Asymmetry of the pelvis, short muscles and postural adaptations are evaluated and addressed. The perineum, perineal connective tissue, scrotal tissue, penis, superficial pelvic floor muscles, bulbospongiosus, transversus perineii, perineal body and ischiocavernosus are assessed. Internally the sphincter, the prostate, the attachments of the levator ani at the pubic bone, the levator ani as they extend back to the coccyx, the obturator muscles and the ischiococcygeus are all assessed. Systematically each of these structures is palpated for taut bands and trigger points and the connective tissue manipulated for restrictions. Neural assessment involves pudendal nerve, obturator, posterior femoral cutaneous nerve and nerves of thoracolumbar origin.

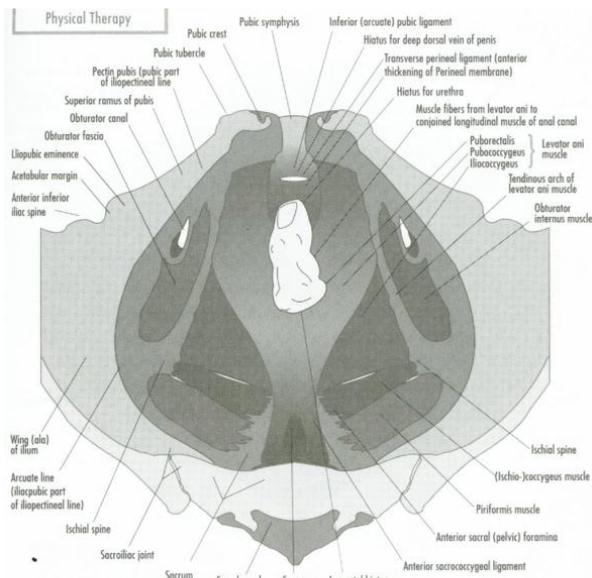


Free medical images database

## Physiotherapy Treatment

The NIH chronic prostatitis symptom index (NIH – CPSI) is a useful measurement tool for these patients before treatment starts (10)

Postural asymmetries and short muscle groups are identified and treated. The connective tissue over the perineum is manipulated, symptomatic taut bands or trigger points are treated externally by flat palpation or by pincer palpation externally to the opposing palpating finger internally. The deep muscles are palpated per rectum and trigger points reproducing the pain are treated using ischaemic pressure and stretch. The pressure is held for up to one minute until the referring or localised pain eases and the therapist moves on to the next point. Gradually the tension eases. Dry needling can also be used on the pelvis externally and on the perineum and in the ideal situation the physiotherapist would work with the urologist or anaesthetist to manipulate tissue following an anaesthetic injection to the localised point causing pain, first identifying that this is the cause of pain diagnostically and then to maximise the effect of the manipulation.



Trigger points in the pelvic floor  
 “A Headache in the Pelvis” Wise & Anderson 2008

Anterior Levator Ani, inferior portion

Frequently there will be good relief on numerical rating scale during treatment but the pain will come back and so treatment is required over time and the patient must learn breathing and release exercises to keep the tone down and to stop feeding into the pain tension pattern. A book called “A Headache in the Pelvis” by psychologist David Wise and urologist Rodney Anderson describes systematic relaxation for these patients and is “a must” for any patient with chronic pelvic pain or any physician treating it(11). The patients will typically need to be followed up over a few months with frequency of treatment varying from patient to patient. A recent pilot study in the US with good results in favour of connective tissue manipulation recommends 10 one hour sessions in order to be able to make the required changes where treatment may be ongoing after this period of time (12). This study shows a 57% improvement in those patients with UCPPS who received connective tissue manipulation against a 21% improvement in those who received general massage.

Chartered Physiotherapists in Women’s Health & Continence has a list of therapists who are trained to carry out these assessments and treatments. This recently updated list is soon to be distributed by Pfizer and is available from the ISCP office, [www.iscp.ie](http://www.iscp.ie).

## References

1. Krieger JN, Nyberg L, Nickert JC, NIH (1999) Consensus and Classification of Prostatitis. *Jama*;282:236-237
2. Nickel JC, Nyberg L, Nennennfent M (1999) Research Guidelines for Chronic Prostatitis: A consensus report from the first NIH International Prostatitis Collaborative Network. *Urology* 54:229-233
3. Fall M, Baranowski A, Elneil S et al (2009) EAU Guidelines on Chronic Pelvic Pain. *European Urology*, Volume 57, Issue 1, Pages 35-48
4. Marszalek M, Wehrberger C, Temml C, et al(2008). Chronic Pelvic Pain and Lower Urinary Tract Symptoms in Both Sexes: Analysis of 2749 Participants of an Urban Health Screening Project". *Eur. Urol.* April 55: 499.

5. Daniels NA, Link CL, Barry MJ et al(2007). Association between past urinary tract infections and current symptoms suggestive of chronic prostatitis/chronic pelvic pain syndrome. *J Natl Med Assoc* 99 (5): 509–16.
6. Nickel JC, Baranowski AP, Pontari M et al. (2007) p63-72 Management of men diagnosed with CP/CPPS who have failed traditional management. *Reviews in Urology* Vol 9 No 2
7. Travell JG, Simons DG, (1999). *Myofascial Pain and Dysfunction: The Trigger Point Manual*, 2nd Ed., Baltimore, Wilkins and Wilkins, Vol. 1
8. Head H. (1893) On Disturbances of sensation with special reference to pain of visceral disease. *Brain* 16:1 -133
9. Anderson R, sawyer T, Wise D et al (2009) Painful myofascial trigger points and pain sites in men with chronic prostatitis/chronic pelvic pain syndrome *J Urol* Vol 182 2753-2758 December
10. Listwin SM, McNaughton-Collins M, Fowler FJ et al NIH CPSI Development and Validation of a new outcome measure . *J Urol* 1999;162:369-375.
11. Wise D, Anderson R (2008) *A Headache in the Pelvis* 5<sup>th</sup> Edition National Center for Pelvic Pain Research
12. Fitzgerald MP, Anderson R, Potts J et al (2009) Randomized Multicenter Feasibility Trial of Myofascial Physical Therapy for the Treatment of Urological Chronic Pelvic Pain Syndromes. *Journal Of Urology* Vol. 182 570-580 August.