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Pain, pleasure, and physiotherapy

DYSPAREUNIA & PHYSIOTHERAPY: PATIENT EDUCATION HANDOUT FOR PELVIC FLOOR PHYSIOTHERAPISTS

DEGREE PROGRAMME IN PHYSIOTHERAPY
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Pain, pleasure & physiotherapy – Dyspareunia & physiotherapy: patient education handout for pelvic floor physiotherapy

Degree Programme in physiotherapy

Dyspareunia is a pelvic floor dysfunction (PFD) often triggered by emotional or physical trauma, dietary habits, lifestyle, disease, other PFDs, infection, or inadequate lubrication. Its primary symptom is pain before, during, or after intercourse, and it has been linked to mental health disorders like depression and anxiety. Dyspareunia significantly impacts a client's quality of life, underscoring the importance of proper treatment.

The aim of this thesis was to create an evidence-based booklet to assist in the treatment and educate clients dealing with dyspareunia. The target audience is young adults who haven't undergone a full-term pregnancy or childbirth (nulliparous) and are experiencing dyspareunia. The booklet will be distributed following a pelvic floor examination by a healthcare professional who will mark and discuss recommended exercises with the client.

Optimal outcomes in addressing dyspareunia often result from a comprehensive physiotherapeutic approach involving a combination of various treatment methods: therapeutic exercise, manual therapy, and psychosomatic physiotherapy. In many instances, a multi-professional team is necessary to consider all factors contributing to and resulting from dyspareunia.

Dyspareunia, nulliparous, sexual health, pelvic floor physiotherapy, intercourse, pelvic floor dysfuntion

CONTENTS

1 INTRODUCTION

Genital pain experienced before, during, or after intercourse is defined as dyspareunia. Dyspareunia is a common health problem among females and other individuals with vulvas. Dyspareunia also affects men. In females the prevalence of the disorder worldwide varies from 3 -18% but it affects 10%-28% of female population during lifetime. The diagnosis is often hard to get, and the diseases is often intermixed with something else, therefore neglected. Often treatable, dyspareunia does not result in major complications. Although the benign nature of dyspareunia, timely intervention is required to obliviate possible sexual dysfunctions and loss of sexual intrest, selfesteem and relationship problems. Psychiatric issues may arise if the disease remains untreated and even infertility may occur on rare occasion. (Tayyeb et al., 2022)

Dyspareunia can be due to structural, inflammatory, infectious, neoplastic, hormonal, psychosocial conditions or physically and/or mentally traumatic events that may lead to hypertonia or hypotonia of the PL-muscles. The disorder can be found in any age. Dyspareunia describes pain during intercourse but causes of dyspareunia may present as pain during active daily living. Pain can be mild to intense during non-sexual activities such as biking or whilst inserting a tampon. (Tayyeb et al, 2022)
Dyspareunia and other pelvic floor dysfunctions may be caused by different life chancing moments that have caused physical and/or emotional trauma leading to hypertonic or hypotonic pelvic floor muscles. (Cleveland clinic, 2021) Hypertonia makes the muscle tissue difficult to relax and makes it dogmatic, while hypotonia of the PLM causes the muscles to be weak, elastic, and difficult to contract. The tonus of the PLM may be one or the other or both. (Törnävä et al., 2023)

Dyspareunia can be specified by determining if it is primary or secondary dyspareunia. If the pain is present from beginning of sexual activity it is specified as primary dyspareunia. Primary dyspareunia is often thought as normal part of penetration and for that it may have caused pain for years. When

the pain is present during intimacy after being pain-free before, it classifies as secondary dyspareunia. Both primary and secondary dyspareunia may be further specified by the origin of the pain as entry or deep pain (Seehunsen et al., 2014) and occurance (complete or situational) of the pain. (Cleveland clinic, 2021) Nulliparous is used to describe a person with female reproductive system who has not given birth and who has not been pregnant for full term. Person who has gone through an abortion or miscarriage is still nulliparous. (Ashwal et al., 2020)

The thesis was ordered by Suhk Mama, an independent physiotherapy clinic in Helsinki that specializes in maternity and pelvic floor physiotherapy. The thesis aimed in creating a handout booklet for physiotherapists to use as patient education tool. The booklet supports rehabilitation and gives basic information about dyspareunia and its' treatment modalities, it is given to clients after they have met with a professional. The booklet was created with Canva, online graphic designer tool.

2 ANATOMY OF THE CORE

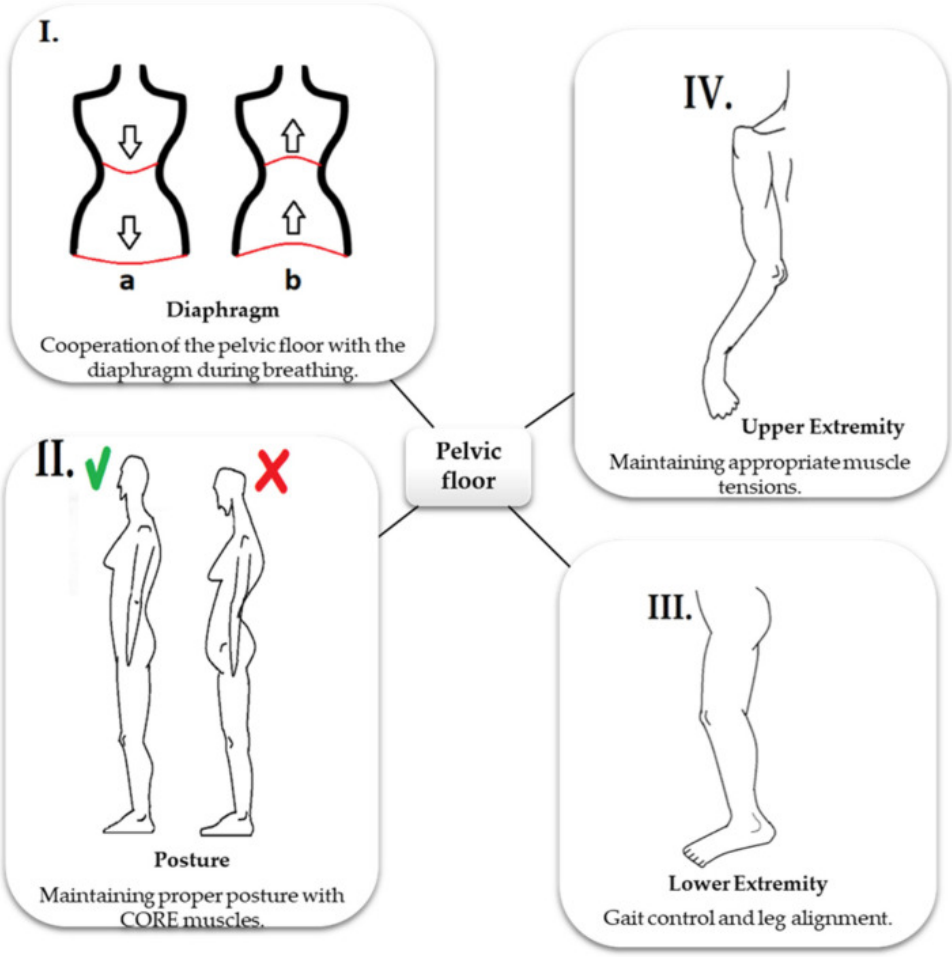
2.1 Base for all movement

The pelvic floor plays a pivotal role in essential bodily functions such as urination, bowel movements, support of organs, sexual function, and childbirth. It operates in harmony with the rest of the body, forming functional connections and collaborating with other muscles and fascia. This intricate interplay establishes a foundation for both posture and movement as shown in picture 1 (Rossetti, 2016; Tim & Mazur-Bialy, 2021). The m. diaphragm operates in tandem with the pelvic floor, and its proper function is intricately linked to the effective circulation of bodily fluids within the myofascial continuum (Bordoni, 2020).

When inhaling, the ribs expand outward and upward, causing the diaphragm to flatten and move downward, subsequently pushing the organs in abdominal cavity downward. This coordinated movement prompts the pelvic floor and abdominal muscles to elongate and expand, providing space for the organs. The downward motion of the diaphragm creates a negative pressure that facilitates the inflow of air into the lungs. The pelvic floor muscles counteract this pressure through an eccentric contraction in response to the diaphragmatic movement. Conversely, during exhalation, the diaphragm ascends, causing the pelvic floor and abdominal muscles to contract and shorten. The cohesive operation of these elements can, however, be disrupted by factors such as pain, scar tissue, weakness, and tightness within the core. Psychological factors, such as stress, can also contribute to these disruptions. Disruptions in the function of the core and alterations in abdominal pressure can lead to various complications, including pelvic floor dysfunctions (McGeorge, 2018).

Activation of the pelvic floor muscles, connected through fascia, has an impact on other core-supporting muscles like the abdominal -, gluteal -, and multifidus muscles. This contributes to stability and posture. If these muscles don't work

properly or have tension issues, it can cause problems elsewhere. For instance, tension in the pelvic area can influence hip joint movement and alter how your lower limbs handle weight. This, in turn, can affect your upper limbs and diaphragm through various layers of tissue (Tim et al., 2021).

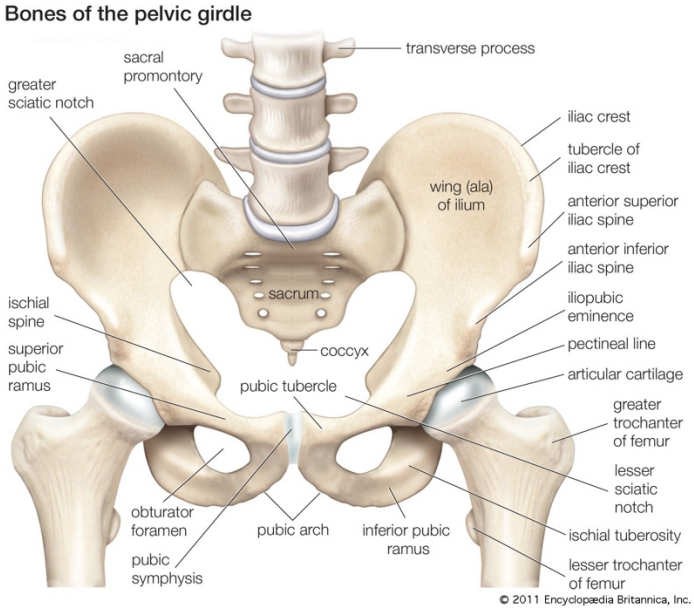


Picture 1: Effects of pelvic floor on the body and posture (Website of PubMed PMC8704638, 2021)

2.2 Pelvic girdle anatomy

When it comes to gender, age, and ethnicity, the shape of the pelvis varies. Generally, females tend to have a wider pelvis compared to males. This difference in the anatomy of the female pelvis serves the dual purpose of enabling childbirth and influencing overall anatomy. This has effects like increased curvature of the lower spine (lumbar lordosis) and the alignment of the legs. Over time, the pelvis undergoes changes influenced by factors such as age, hormones, culture, and lifestyle. (Heiskanen et al., 2020)

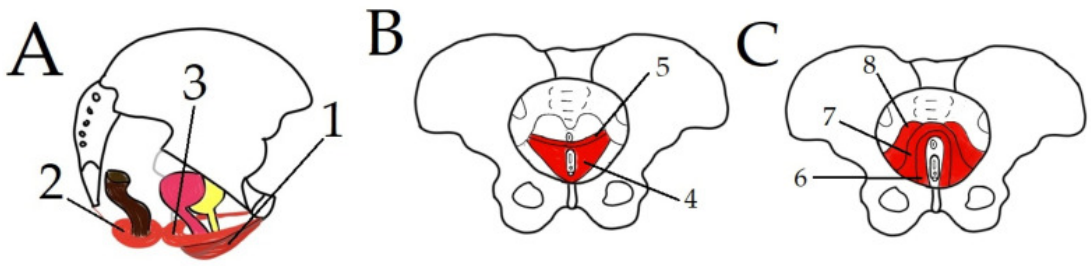
Beyond gender considerations, shown in picture 2, the pelvis is composed of two hip bones, the sacrum, and the coccyx. The larger hip bone is a fusion of three bones: the ischium, pubis, and ilium. Ligaments play a key role in holding these bones together. The pubic bones are connected at the front by the symphysis pubis. At the back, the ilium connects to the sacrum through the sacroiliac joint. In females, these ligaments are typically broader, and hormonal fluctuations, like those of estrogen during menstruation, can lead to discomfort or pain. (Heiskanen et al., 2020)



Picture 2: Bones of the pelvic girdle (Website of Britannica, 2023)

2.3 Unveiling the pelvic floor structures

The debate continues regarding how to categorize the layers of pelvic floor muscles. Currently, they are grouped into three layers (Rossetti, 2016). In picture 3 the outermost layer is the urogenital triangle (A), which includes the m. bulbocavernosus (3), m. ischiocavernosus (1), and external anal sphincter muscles (2). The next layer (B), also called the urogenital diaphragm or perineal membrane, is made up of the m. superficial transverse perineal (5), m. deep transverse perineal (4), and the sphincter urethrae. The deepest layer, called the pelvic diaphragm (C), consists of the mm. levator ani and m. coccygeus. The m. levator ani has three muscles: the m. puboccygeus (7), iliococcygeus (8), and puborectalis (6) (Raizada et al., 2008)



Picture 3: Three layers of pelvic floor muscles (Raizada, 2008)

All the muscles within the pelvic floor play crucial roles, including supporting the core, aiding in controlling abdominal pressure, and contributing to continence. However, some muscles also have a more significant impact on sexual functions. In the female anatomy, the hiatus urogenitalis serves as an opening for the urethra and vagina. This opening is encompassed by the anterior portion of the m. pubococcygeus. The pubococcygeus muscle holds particular importance in sexual health due to its three distinct parts: puboperineal, pubovaginal, and puboanal. Notably, the pubovaginal section encircles the vagina, exerting compression and sensing pressure changes that the brain interprets as sensations of sexual pleasure. (Tim et al., 2021)

In addition to the various muscle layers, the pelvic floor can be categorized into either three (Tim et al., 2021) or four compartments, depending on the study (Bordoni et al, 2013). The three divisions consist of the anterior, middle, and posterior compartments. The anterior compartment encompasses the bladder and urethra, the middle section contains the vagina and uterus, and the posterior division includes the anus and rectum. (Tim et al., 2021)

The debated fourth compartment involves the peritoneum, which is composed of the endopelvic fascia and perineal membrane (Bordoni et al, 2013). The peritoneum, distinct from the perineum, is a serous membrane layer within the abdominopelvic cavity. It provides support to abdominal and pelvic organs, aided by the endopelvic, pubocervical, and rectovaginal fascia, along with robust ligamentous connections. The fascia's significance extends to functional integration, as it envelops muscles, organs, and bones, acting as a bridge between different structures. Additionally, the fascia is believed to have a role in transmitting sensations of pain and effects related to dysfunction, as it contains nociceptors and contributes to proprioception. (Tim et al., 2021)

3 EXPLORING SEXUAL ACTIVITY

3.1 Sexual response cycle

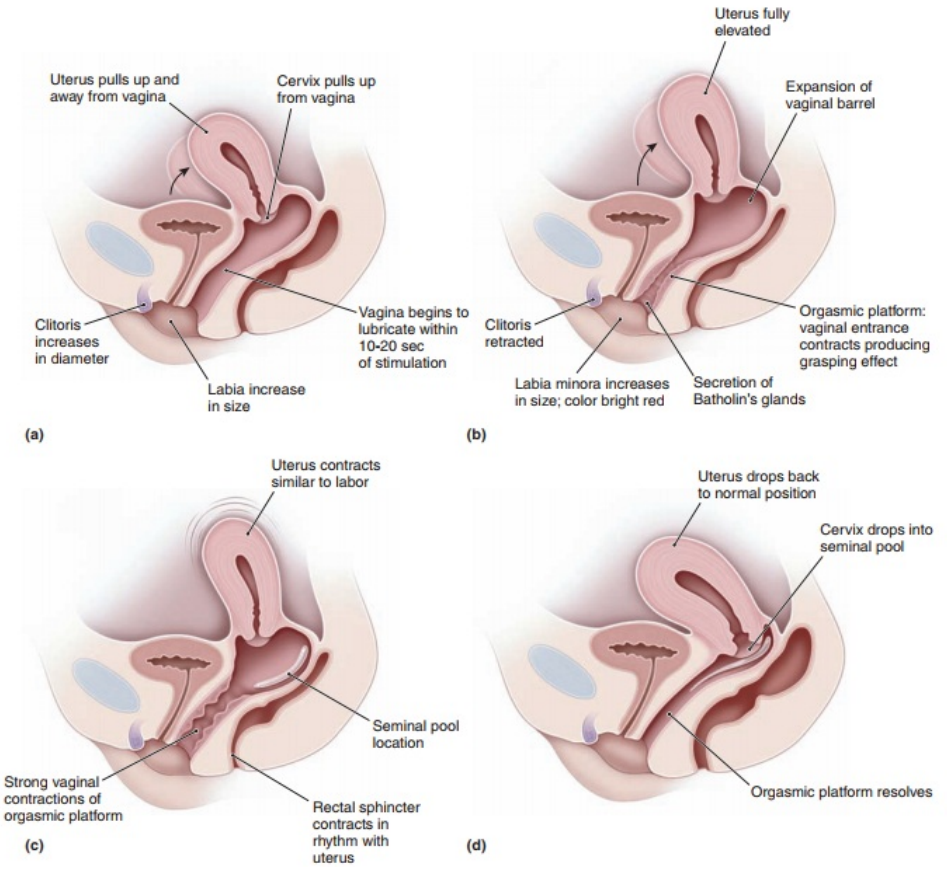
The way women experience sexual responses is quite intricate, involving both their thoughts and their bodies. In the past, models like those from Masters, Johnson, and Kaplan were used to understand sex. These models suggest that sex happens in certain stages: first there's desire, then arousal, followed by a sustained state of high arousal, then a peak, and finally, there's a release or orgasm. However, these models don't fully capture the emotional aspect of sex. A newer model, based on intimacy, has emerged. It's more flexible and recognizes that the stages of female sexual response don't always occur in a strict order. This model considers things like how different parts of the body feel, emotions, the intensity of orgasms, feeling safe, and sexual problems like dyspareunia. All these factors can blend, making it harder to distinguish between the desire and arousal stages. The intimacy-based model also focuses on how feeling emotionally close to a partner, specific sexual triggers, and both physical and mental factors all contribute to how women respond sexually. (Beckmann et al., 2009)

Considering the complexity of the female sexual response cycle, including its relevance to dyspareunia, our understanding of women's sexual experiences has evolved significantly. The emergence of a flexible, intimacy-based model has expanded our perspective, recognizing that the stages of female sexual response aren't always strictly sequential. This model emphasizes the significance of emotions, bodily sensations, orgasm intensity, feelings of safety, and sexual issues like dyspareunia. This understanding paves the way for more comprehensive and inclusive approaches to sexual health and overall well-being. (Beckmann et al., 2009)

3.2 Physiology of sexual response

During female arousal, several phases unfold. The duration, sequence, and intensity of these phases can vary from person to person, and these variations can even occur within a single person's lifetime. The diagram below illustrates the stages: excitement, plateau, orgasm, and resolution. This cycle is also associated with various neurotransmitters. Norepinephrine, dopamine, oxytocin, and serotonin are believed to have positive effects on sexual response. However, serotonin can negatively impact the cycle through most receptors, except for 5-hydroxytryptamine 1A and 2C, along with prolactin and gamma-aminobutyric acid. (Beckmann et al., 2009)

The sexual cycle is shown in picture 4. The excitement stage (a), blood flow to the clitoris and labia increases, causing them to enlarge. Simultaneously, the uterus and cervix move upward and away from the vagina, which starts to lubricate. When the uterus is fully elevated, the plateau stage (b) begins. This elevation enables the vaginal barrel to expand. The orgasmic platform starts contracting while the labia minora further enlarge. During the orgasm phase (c), vaginal contractions intensify, and the m. rectal sphincter contracts in rhythm with the uterus. Typically, following an uninterrupted cycle, the resolution phase (d) restores organs and muscles to their initial state. However, disruptions in the cycle can occur due to pain, fear of pain, or the potential discomfort caused by inadequate lubrication, tight scar tissue, or other pelvic floor dysfunctions. (Beckmann et al., 2009)



Picture 4: Female sexual response cycle (Beckmann et al., 2009)

3.3 Enhancing comfort: Sexual health products

Limited research has explored the impact of sexual health products like vibrators, dildos, and lubricants on pelvic floor dysfunctions. The existing studies suggest that using external objects can provide reliable benefits in alleviating discomfort during sexual activity. Vibrators, specifically, have been found to be advantageous for women with pelvic floor dysfunctions. Vibrations promote increased blood flow, positive changes in muscle tone, reduced sexual distress, heightened sexual arousal, and enhanced satisfaction. In cases of pelvic floor dysfunctions, vibrations have demonstrated the potential to decrease urine leakage and alleviate other urinary symptoms. For dysfunctions associated with pain, vibrations have shown to enhance pelvic

floor muscle strength, diminish pain, and contribute to an improved sexual experience. (Bankhead, 2022)

Various-sized dildos and dilatation devices can serve to enhance control and relaxation of pelvic floor muscles. Dilators are employed to address tight scar tissue and muscle tissue within the vagina, accomplishing this by stretching the tissue and enhancing blood circulation. Different temperatures can also be utilized intravaginally to enhance relaxation or alleviate pain. Mechanical stretching preps the tissue for penetration through warming it. (Lauder, 2021)

Penetration and sexual intercourse generate friction on the clitoris, vulva, and vagina. This friction typically elicits pleasurable sensations by stimulating nerve endings, yet it may also induce discomfort. Insufficient natural lubrication can result in microtrauma to the vulvar and vaginal surface tissue, the epithelium. Factors like self-image, sexual history, hormones, and underlying health conditions can influence natural lubrication. Consequently, the use of external lubricants may be beneficial to reduce friction and heighten pleasurable sensations. (Seehunsen et al., 2014)

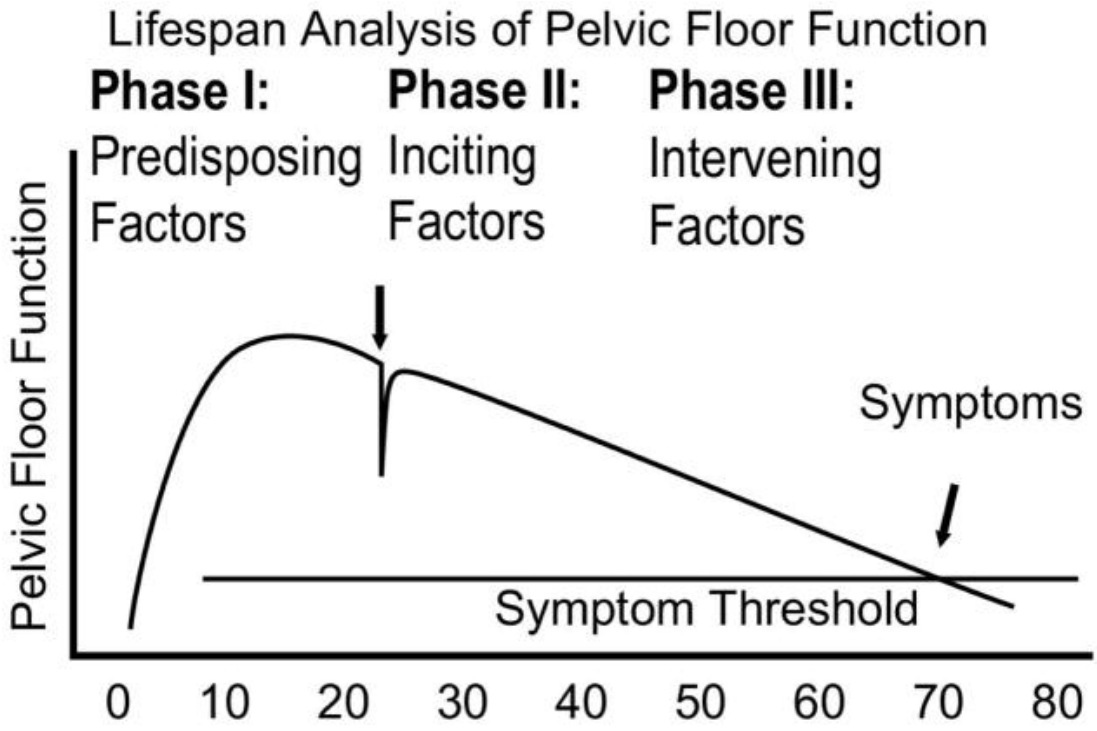
4 PELVIC FLOOR DYSFUNCTIONS AND PAIN

4.1 The spectrum of pelvic floor function

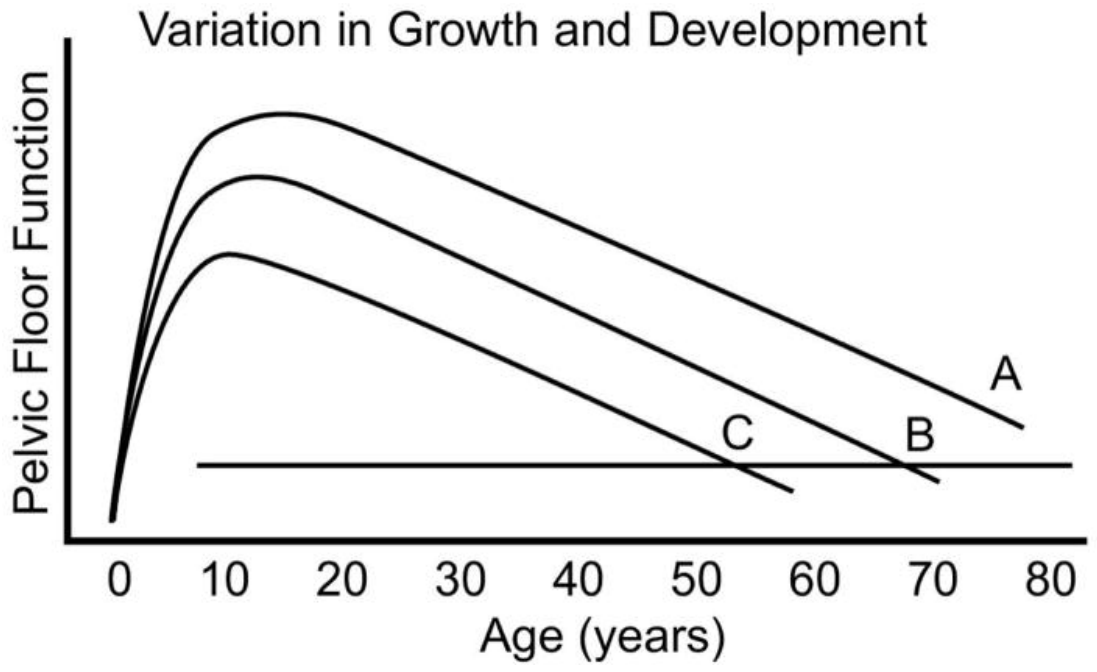
Pelvic floor dysfunction (PFD) doesn't always result in dyspareunia, but they often coexist since dyspareunia falls under the category of pelvic floor dysfunction. Additional factors, including dietary habits, ergonomics, and the level and quality of daily exercise, can also impact pelvic floor function and potentially lead to PFD. These factors should be considered in pelvic floor physiotherapy. The causal factors give rise to three significant life phases that influence pelvic floor function and contribute to the development of pelvic floor disorders. These three life phases include:

1. **Development of Functional Reserve:** This phase pertains to the establishment of a functional reserve during an individual's growth and maturation.
2. **Variations in Injury and Recovery:** The second phase encompasses the fluctuations in the extent of injury and the potential for recovery, particularly during and after vaginal birth.
3. **Age-Related Deterioration:** The third phase involves the natural decline in pelvic floor function that occurs with advanced age.

Understanding these distinct life phases (picture 5) and their associated causal factors provides insights into the origins of pelvic floor disorders. By comprehending these phases, healthcare practitioners can develop more targeted and effective approaches to pelvic floor care and physiotherapy. (DeLancey et al., 2008)

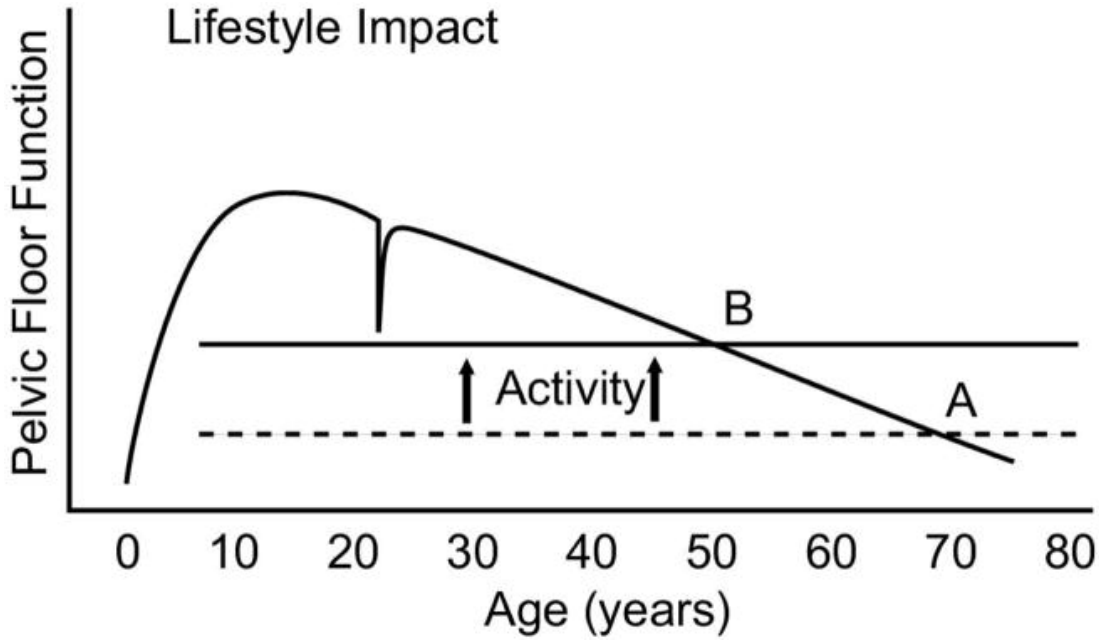


Picture 5: Lifespan analysis of pelvic floor function (DeLancey et al., 2008)



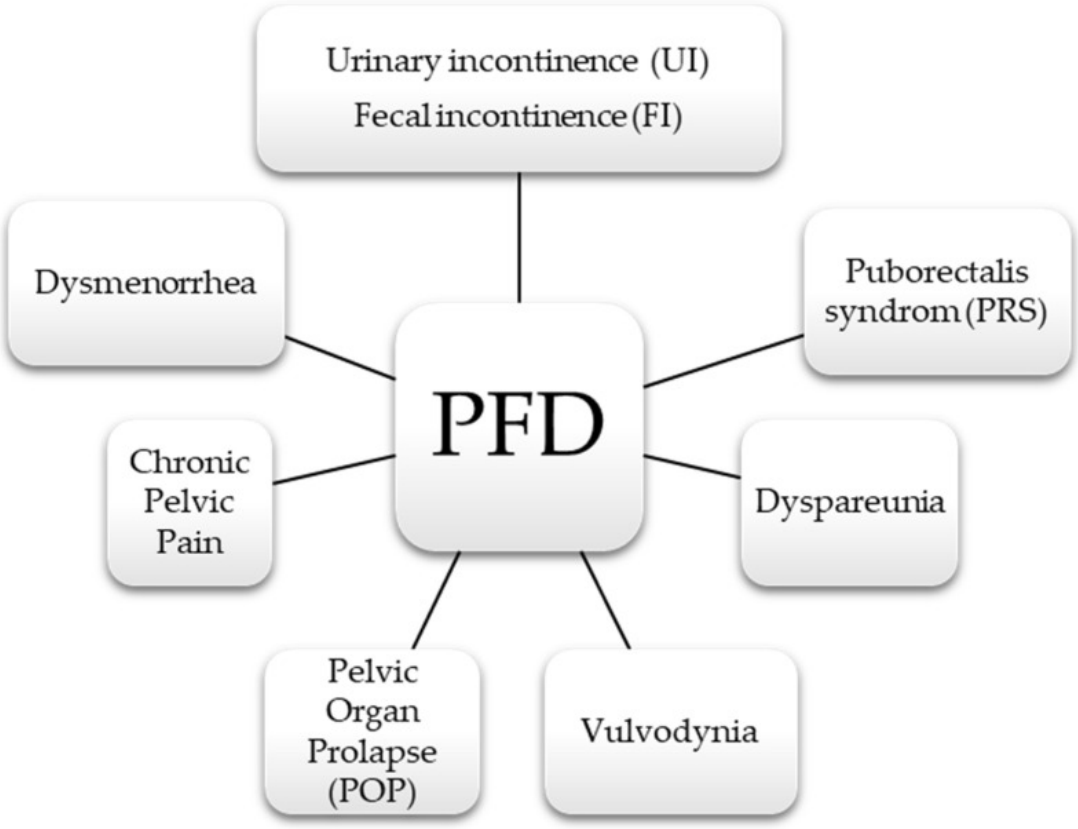
Picture 6: Variation in growth and development (DeLancey et al., 2008)

During the process of growth and development, varying degrees of functional reserve are established (picture 6). This development is unique to each individual and is influenced by external factors (such as the environment) as well as internal factors (such as genetics). The extent of this functional reserve determines the manifestation of symptoms, such as genital pain during intercourse. Females with a larger functional reserve might not experience symptoms throughout their lives, or they may encounter them later in life. On the other hand, those with a smaller functional reserve could experience symptoms earlier. The occurrence of symptoms is influenced by the stresses exerted on the pelvic floor. For instance (picture 7), the likelihood of developing stress incontinence might be higher in individuals engaged in high-impact activities (B) , whereas a sedentary person (A) may never face this issue. This means that even if two individuals possess the same functional reserve, the variation in symptoms at different stages and ages of life could stem from differences in their activity thresholds. In essence, the symptoms experienced by individuals with similar functional reserves can diverge due to disparities in the intensity and type of activities they engage in. (DeLancey et al., 2008)



Picture 7: Lifestyle impact on pelvic floor function B: Occurance of symptoms for individual with high impact activities A: Occurance of symptoms for sedentary individual (DeLancey et al., 2008)

Several factors, including physical activity, obesity and metabolic syndrome, chronic constipation, eating disorders, connective tissue diseases, and smoking, can influence pelvic floor function and contribute to the occurrence of symptoms and dysfynctions as shown in picture 8. It's noteworthy that approximately 25% of the female population experiences pelvic floor dysfunctions, a percentage that tends to rise as age advances. Therefore, it's important to also consider other pelvic floor dysfunctions (PFDs) and lifestyle-related factors when providing treatment for patients with dyspareunia. By addressing these additional PFDs and lifestyle components, potential symptoms can be managed proactively or even preemptively, reducing the risk of symptom manifestation. Proper pelvic floor physiotherapy plays a pivotal role in this approach, enabling early treatment and symptom prevention. (Tim et al., 2021)



Picture 8: Most common pelvic floor dysfunctions among women of all ages.(Tim et al., 2021)

4.2 Unpacking entry pain: Superficial dyspareunia

Superficial dyspareunia can be linked to various factors such as infections (like Candidiasis or herpes simplex virus), inflammatory or dermatological conditions (such as dermatitis or lichen sclerosis), muscular issues (like vaginismus or myofascial pain vulvodynia), neurological concerns (including herpes neuralgia or pudendal neuralgia), anatomical factors (such as clitoral adhesions or narrowing of the vaginal opening), neoplastic conditions (like Paget disease or squamous cell carcinoma), iatrogenic causes (related to medical treatments like surgery or chemotherapy), and trauma (such as female genital cutting or obstetrical trauma). (Kumar et al., 2017)

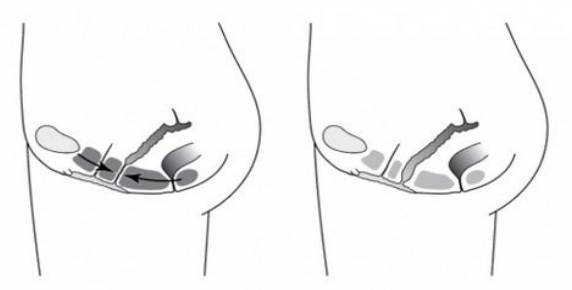
Vulvodynia involves pain in the outer parts of the female genitalia and affects many women. It can be categorized as localized or generalized, depending on the nature of the pain. Localized vulvodynia, more common of the two, is characterized by touch-sensitive pain, often situated near the back of the vaginal opening. Pain can be provoked by touch, occur spontaneously, or have a mixed pattern. Generalized vulvodynia, on the other hand, results in nerve-related pain in broader areas of the vulva, extending around the pudendal nerve. The exact location of pain is less defined, and the discomfort tends to be constant. (Seenhunsen et al., 2014)

Vulvodynia has been associated with factors such as hormonal birth control, urogenital infections, uterine and pelvic floor dysfunctions, and certain hereditary issues. While anxiety, depression, and self-esteem problems are more common among vulvodynia patients compared to their healthy counterparts, the onset of the condition is not necessarily linked to these factors or sexual trauma. Treatment typically involves a multidisciplinary approach, with medical interventions aimed at pain relief and disease management. Physicians may adjust hormonal treatments or even resort to surgical removal of painful tissue in cases where localized vulvodynia treatments prove ineffective. Pelvic floor physiotherapy adopts a holistic strategy, utilizing techniques like biofeedback, electrotherapy, and manual

therapy for trigger points, all while addressing the psychological aspects of the condition. (Beckmann et al., 2009; Seehusen et al., 2014)

In conditions like vulvodynia and other sources of dyspareunia, the presence of pain and the fear of experiencing pain can lead to the development of vaginismus. Vaginismus involves an involuntary contraction of the vaginal muscles, causing discomfort and hindering penetration. The relationship between vaginismus and dyspareunia is a subject of ongoing debate, as it's yet to be conclusively determined whether vaginismus is the primary or secondary factor contributing to dyspareunia. Due to the significant clinical overlap between the two, they are often considered as interconnected aspects. (Seehusen et al., 2014)

Vaginismus (picture 9) has been associated with pelvic floor dysfunction and psychosocial factors, including a history of sexual abuse (Tayyeb et al., 2022). Addressing vaginismus typically involves a combination of pelvic floor physiotherapy and psychotherapy. Additionally, there are promising studies exploring the use of Botox injections as a potential treatment method for vaginismus. This multi-faceted approach highlights the complexity of vaginismus and underscores the importance of a comprehensive strategy for its management. (Seehusen et al., 2014)



Vaginismus Involuntary Tightness

In the diagram on the left, the effects of vaginismus are illustrated with the tightening of the pelvic floor muscles and the resulting tightness of the vagina. On the right, the pelvic floor is relaxed and intercourse is possible without pain.

Picture 9: Vaginismus involuntary tightness (Harvey-Jenner, 2016)

In conjunction with or independently from the diagnoses previously discussed, dyspareunia can also affect nulliparous adults who have developed scar tissue

in areas such as the vulva, perineum, anus, and vaginal entrance. This discomfort can be attributed to the sclerotic healing of scars or nerve damage. Such scarring and nerve issues may arise from sources like female genital mutilation (FGM) or other traumatic events, including reconstructive surgery, cyst removal, tumor or fibrosis surgeries, cancer treatments, or labia plasty procedures. Physical manifestations of vaginal scarring encompass tenderness, pain, and itching. These experiences highlight the intricate relationship between scar tissue formation, nerve damage, and the resulting dyspareunia symptoms. (Lubczyńska et al., 2023)

4.3 Navigating penetration pain: Deep dyspareunia

When pain occurs during the insertion and penetration phase, it falls under the classification of deep pain. This discomfort can stem from factors like dryness or friction, where the vaginal tissues may not adequately stretch and lengthen in response to arousal, as discussed in section 3.2. The sensation of discomfort can also be influenced by different sexual positions and the force or size of the penile impact on the cervix. Patients often describe this kind of pain as feeling like "something being bumped into".(Heim, 2001)

Similar to entry pain, deep pain can be persistent, meaning it persists throughout penetration, or it can be situational. Situational pain refers to instances where pain may be absent during certain penetrative experiences but present during others. It can also refer to pain that occurs at specific times during penetration, such as at the beginning, middle, end, or afterward. (Cleveland clinic, 2021) Various factors contribute to deep dyspareunia, including adnexal pathology, infections (such as endometritis or pelvic inflammatory disease leading to scarring), interstitial cystitis, pelvic adhesions, retroverted uterus, uterine myomas, and notably, endometriosis, a condition frequently encountered in pelvic floor physiotherapy clinics. (Heim, 2001)

Endometriosis, affecting 5% to 15% of the female population, is responsible for over 70% of chronic pelvic floor pain cases. This condition involves the growth of tissue like uterine lining outside the uterus, leading to heightened pain during menstruation. Beyond pain, it can also cause infertility, varying degrees of discomfort during daily activities, pelvic floor muscle tension due to pain anticipation, and psychological challenges like self-esteem issues and depression. The pain associated with endometriosis results from the growth of extra tissue, the formation of scar tissue, and involuntary muscle tension. Symptoms might alleviate after menopause, as endometriosis is closely tied to estrogen production and menstruation. Pelvic floor physiotherapy has shown promise in improving the quality of life and mental well-being for individuals with endometriosis. This form of therapy incorporates pelvic floor exercises,

manual techniques, electrotherapy, and addresses psychological aspects to provide comprehensive care. (Törnävä et al., 2023)

5 PHYSIOTHERAPY IN PELVIC FLOOR REHABILITATION

5.1 Bridging the gap: Physiotherapy and dyspareunia

Pelvic floor physiotherapists play a crucial role as educators and allies in the process of pelvic floor rehabilitation. Many women lack sufficient knowledge about the general anatomy of their genital structures, underscoring the importance of patient involvement and education, therefore giving a mirror for the patient during examination is important for the involvement and education of the client. (Heim, 2001)

Pelvic floor physiotherapy employs a range of techniques, including patient education, EMG, ultrasound, electrotherapy, palpation, therapeutic exercise, and manual therapy. Palpation offers essential feedback regarding the pelvic floor's condition, which is instrumental in designing an effective rehabilitation plan. Through palpation, physiotherapists can identify painful areas and assess whether pelvic floor muscles are hypertonic, hypotonic, or a combination of the two. The physiotherapist's goal is to assess and enhance or restore proper pelvic floor function, all while considering the holistic well-being of the individual. Treatment is always individual and taking into consideration the patients' history is important. (Törnävä et al., 2023)

Despite its potential, the physiotherapeutic approach to chronic pelvic pain and female sexual dysfunction remains underutilized and underexplored. Challenges arise from the scarcity of comprehensive test results and relevant medical information that could guide precise physiotherapeutic interventions. Though, recent studies indicate that physiotherapy has its place in treatment of chronic pelvic pain and female sexual dysfunction. (Berghmans, 2018) Shown in table 1, a randomized controlled clinical trial performed on 64 females experiencing dyspareunia due to muscular problems with visual analog scale (VAS) over 8, measured the effectiveness of physiotherapy on the pain. The study found that those who went through pelvic floor physiotherapy for pain (experimental group n:32) in relation to those who did

not (control group n:32), experienced far less pain after three months (VAS before: 9.06, after 1,41). For the group who participated in the physiotherapy, statistically significant ($p<0.05$) improvement was noted on desire, arousal, lubrication, orgasm, satisfaction, and PFM strength and endurance. Treatment methods included patient education, PLM exercises, manual therapy, and electrotherapy. (Ghaderi et al., 2019)

Table 1: Analytical statistics before/after results between two groups (Ghaderi et al., 2019)

Table 2 Analytical statistics before/after results between two groups

Variable		Experimental group ($n = 32$)	Control group ($n = 32$)	MD (95% CI) between groups
Desire	Before	3.59 (1.60)	3.56 (1.52)	0.031 (−0.813 to 0.750)
	After	8.38 (1.28)	4.00 (1.52)	4.409 (3.697 to 5.121)**
Arousal	Before	5.06 (2.35)	4.56 (2.04)	0.500 (−1.602 to 0.602)
	After	14.47 (1.86)	5.03 (1.30)	9.310 (8.495 to 10.125)**
Lubrication	Before	4.44 (1.93)	5.25 (2.92)	0.813 (−0.428 to 2.053)
	After	14.44 (1.77)	5.94 (3.61)	9.026 (7.758 to 10.294)**
Orgasm	Before	3.63 (1.89)	4.13 (1.80)	0.500 (−0.426 to 1.426)
	After	11.56 (1.39)	4.91 (1.59)	6.709 (5.924 to 7.495)**
Satisfaction	Before	4.31 (1.37)	4.53 (1.79)	0.219 (−.581 to 1.019)
	After	10.53 (1.10)	4.97 (2.07)	5.666 (4.882 to 6.451)**
Painless	Before	3.88 (1.94)	4.28 (1.87)	0.406 (−0.548 to 1.360)
	After	12.78 (1.38)	4.81 (1.58)	8.073 (7.260 to 8.886)**
FSFI	Before	31.16 (8.31)	35.25 (10.04)	4.094 (−0.514 to 8.701)
	After	88.59 (4.92)	38.69 (6.72)	51.051 (48.274 to 53.828)**
PFM strength	Before	1.72 (0.72)	2.50 (0.88)	0.781 (0.378 to 1.185)**
	After	4.19 (0.72)	2.47 (0.80)	2.014 (1.641 to 2.378)**
PFM endurance	Before	4.53 (2.30)	6.44 (2.78)	1.906 (0.631 to 3.182)**
	After	12.25 (2.07)	6.56 (2.59)	6.267 (5.084 to 7.450)**
VAS	Before	9.03 (0.86)	8.34 (0.97)	−0.68 (−1.14 to −0.22)
	After	1.66 (1.09)	8.72 (1.14)	7.32 (6.76 to 7.88)**
	After 3 months	1.41 (1.10)	8.87 (0.83)	7.57 (7.03 to 8.10)**
	p value for RMANOVA	<0.001*	0.059*	

CI confidence interval, *MD* mean difference, *RMANOVA* repeated measures ANOVA

All values are presented as mean (SD)

*RMANOVA

**$p < 0.05$, between group analyses of covariance adjusted for baseline measurements

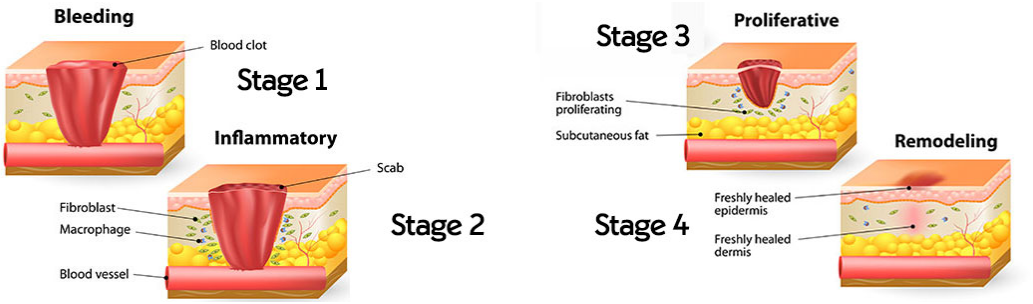
5.2 Healing touch: Manual therapy

Manual therapy, a key part of pelvic floor rehabilitation, can be done by a physiotherapist, the patient, or with the help of tools like dildos and vibrators. It involves techniques like massaging, stretching, and soft tissue manipulation. This approach has been found to help improve painful intercourse. (Törnävä et al., 2023)

In cases where insertion of e.q. finger or a tool such as a dilator is not too painful, manual therapy from inside the vagina or anus, is highly effective in reducing pain and in improving the function of PFM. In addition to local treatment, treatment of surrounding structures such as fascia, nerves and joints should be included to restore normal mobility and reduce pain and PFD symptoms. Untreated hyperactive pelvic floor may lead to chronic pelvic pain (CPP), which may lead to central sensitization and other disorders. Overactive PF may also lead to hormone disturbances. Therefore, importance of relaxed pelvic floor and structures connecting to it, pelvis, myofascial connections, and the nervous system, is increased and vital to overall wellbeing. (Tim et al., 2021)

Another factor that affects PLM function are surgeries and scars. Intravaginal and other scars such as abdominal scars, may affect the function of PLM negatively. Scars can greatly affect the quality of life. Effects of trauma and surgical scars may be reduced with different treatment methods. Such methods from physiotherapy point of view are ones affecting on the pain and functional limitations. Physiotherapist can perform manual therapy and taping. Other treatment options include pharmacological methods and surgical techniques. Studies show that the most effective treatment combines different therapy methods. (Lubczyńska et al., 2023) Manual therapy on scars, scar tissue therapy, requires applying physiological stimuli adequately to the phase of wound healing). Phases of scar healing are shown in picture 10. Healing can be divided into four stages: (1) Hemostasis (starts immediately) , (2) Inflammation (lasts up to 73h), (3) proliferation (from one to three weeks) and

(4) remodeling (from three weeks to several years). Phases of healing are affected by age and medical history. (Strodtbeck, 2001)



Picture 10: Healing phases of a wound/scar (Website of Nuffieldhealth)

Scar massage serves as a vital strategy to restore functional capacity and bolster the strength of compromised tissue. The approach's efficacy hinges on its alignment with the scar's specific healing phase. During the initial 21 days of healing, a gentler and localized approach is advocated, targeting areas characterized by heightened connective tissue resistance. Subsequently, after this critical threshold, a more vigorous stimulus can be applied. The recommended application entails 1-minute sessions per targeted area, with 3 to 5 repetitions per session, thus orchestrating a systematic and tailored regimen. (Koller, 2020)

Other supplementary scar treatment techniques have also demonstrated their effectiveness (Table 2 and 3). These include cupping, dry needling, kinesiotaping, instrument-based therapy, electrodermal therapy, dedicated exercises, and compression therapy. Of note is the demonstrated efficacy of manual therapy, substantiated by the SCAR scale and the Patient and Observer Scar Assessment Scale (POSAS), which gauges the subjective experience of the patient. As shown in the figures below subjective improvement was experienced in pain, pruritus, color, stiffness, regularity and additionally vascularization and elasticity. (Lubczyńska et al., 2023)

Table 2: Subjective assessment of scar pain, pruritus, color level before and after therapy; average, average ± SD, and average ± 1.96*SD (Lubczyńska et al., 2023)

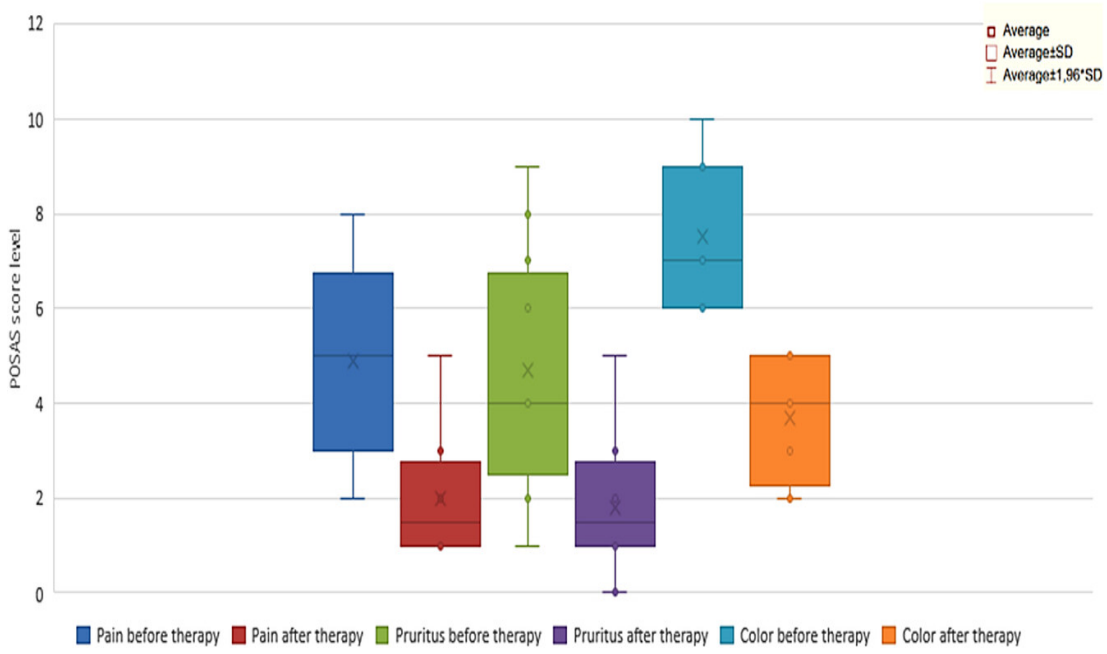
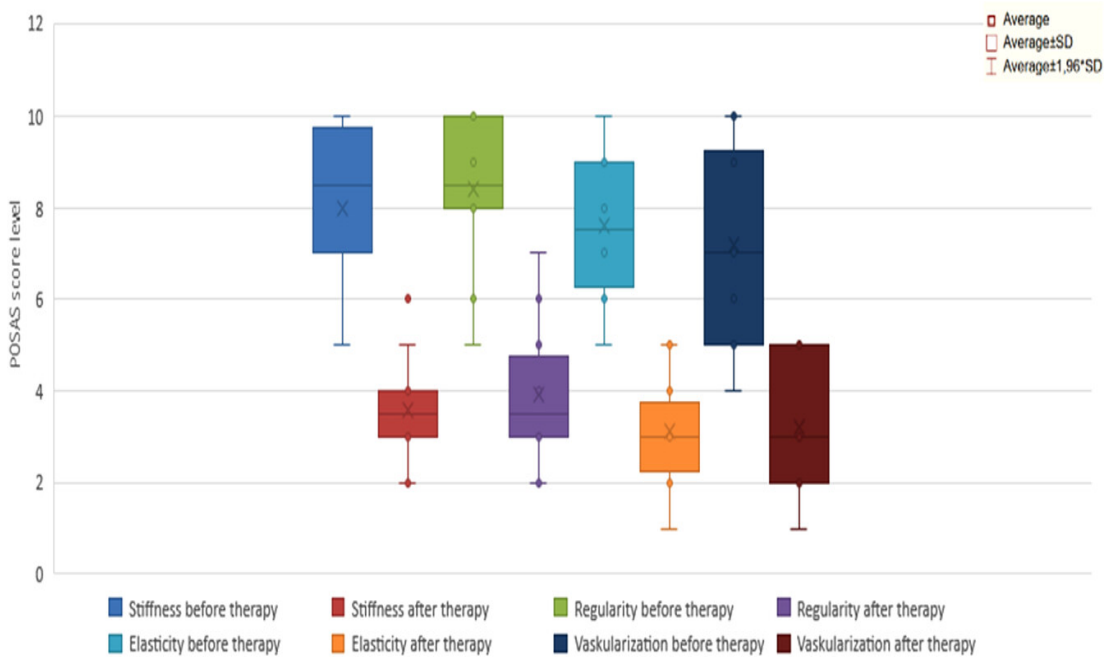


Table 3: Subjective assessment of scar stiffness, regularity, elasticity, and vascularization level before and after therapy; average, average ± SD, and average ± 1.96*SD (Lubczyńska et al., 2023)



5.3 Strengthening the base and alleviating pain: Pelvic floor exercises

Pelvic floor muscle (PFM) exercises are crucial for addressing various pelvic floor dysfunctions, including dyspareunia. These exercises involve

recognizing, strengthening, and relaxing the muscles. However, their effectiveness depends on doing them correctly. Research indicates that many women with these issues struggle to activate or relax their PFMs properly. This is where pelvic floor physiotherapy and patient education come in, playing a vital role in rehabilitating pelvic floor dysfunctions. The goal of strength training is to boost power and promote relaxation. These exercises also enhance metabolism and blood flow to the area, which improves the condition of the mucous membrane and the area's sensory responsiveness. Moreover, working on the pelvic floor muscles can help individuals feel more in control of their pain, positively impacting their mental well-being. (Tim et al., 2021)

Guidelines for PFM training suggest different approaches. For hypertrophy, you gently contract and hold for 10 to 20 seconds, repeating 5 to 10 times with breaks in-between. Strength training involves strong contractions for 5 seconds, repeated five times with 10-second rests. Endurance exercises entail rapidly contracting the PFMs up to 10 times. It's recommended to do these exercises five times a week, started lying down and gradually advancing to standing positions with varied movements. Strength training also increases blood flow, which improves function, lubrication, and sensation in the area. (Törnävä, 2022)

While these guidelines offer valuable insights, applying them to treat dyspareunia requires personalized guidance. Electromyography (EMG) is useful for PFM training and pain relief. Another method is electrotherapy (TENS), using electronic devices to alleviate pain, which has shown effectiveness for both disorder-related and non-disorder dyspareunia cases. (Ghaderi et al., 2019; Törnävä et al., 2023)

EMG is a versatile tool used in physiotherapy, patient education, and home exercises. It measures electrical activity in the PFMs, providing insights into their activation. While it doesn't directly measure strength, EMG helps assess resting tonus, activation, and relaxation across different positions. It aids patients in learning relaxation techniques, correcting activation patterns, and building strength. Though it doesn't pinpoint specific muscle activation or

accuracy, learning to interpret EMG results is guided by a pelvic floor physiotherapist. (Heiskanen et al., 2020)

6 METHODOLOGY

This thesis undertakes an action research journey to investigate evidence-based physiotherapy strategies for addressing dyspareunia, focusing on nulliparous adults. Guided by the research questions, 'Why do people suffer from dyspareunia?' and 'How can dyspareunia be treated through physiotherapy?' action research was chosen as the methodology for its emphasis on credible information and practical outcomes. The study conducted an extensive literature review, drawing from reputable sources including PubMed, Finna, and evidence-based publications. In the selection process for references, strict criteria were applied. Only evidence-based articles or studies were considered, and these had to specifically focus on young nulliparous female adults. To maintain a focused scope, studies involving pregnant females, females who had given birth, and menopausal females were excluded from consideration, as their inclusion would have significantly expanded the study's breadth. This selective approach ensured that the research remained targeted and relevant to the chosen demographic.

The timeline for this thesis extended from spring 2022 to August 2023, with a significant revision in early 2023 to enhance the evidence base. Collaboration with the thesis client was established in late summer 2022, facilitating productive online and in-person meetings that contributed to shaping the research. Valuable feedback was gathered from the client, peers, and nulliparous adults experiencing dyspareunia, feedback was used to shape the final product to fit the clients needs.

The primary objective of this thesis was to uncover evidence-based physiotherapy strategies for addressing dyspareunia and offer insights into effective treatment approaches. The research process encountered challenges, notably in sourcing reliable information due to the limited study on dyspareunia. My personal interest in the topic stemmed from witnessing the profound impact of dyspareunia on young women and their intimate relationships, motivating me to create a patient education resource envisioned as a booklet. As the research advanced, the crucial role of pelvic floor physiotherapy in rehabilitation became increasingly evident.

This thesis not only highlighted the seriousness of dyspareunia but also ignited authors aspiration for comprehensive sexual education. The goal is to integrate discussions on pelvic floor dysfunctions and to facilitate open dialogues and make the process of seeking treatment less intimidating. Furthermore, this thesis has inspired authors specialization in pelvic floor rehabilitation, marking a significant milestone in my professional journey.

7 DISCUSSION

Throughout this thesis, the author's understanding of dyspareunia has grown significantly. Looking back, the author realizes that a more specific research focus, such as dyspareunia caused by conditions like vulvodynia and vaginismus, rather than covering a broader range that includes diseases like endometriosis, would have allowed for deeper insights into these specific challenges. The author would have also liked to have more sources to bolster the reliability of the literature review. However, due to the scarcity of published research and time constraints that prevented a deeper exploration of each topic, some sections of the thesis had to rely on a limited research base.

This thesis provides a strong foundation for future research. It opens doors to various avenues worth exploring. For instance, we could dive deeper into male dyspareunia, an area that needs more attention, given the limited available information. There's also room for investigating pelvic floor dysfunctions in transgender individuals, especially trans-female individuals, which is a under-researched topic. Expanding research efforts to encompass a broader range of dyspareunia causes and populations will enhance our ability to provide tailored and effective treatment. Additionally, investigating the long-term effects of physiotherapy interventions and tracking patient outcomes over extended periods could offer insights into the sustainability and success of these approaches.

The significance of patient education cannot be overstated. Physiotherapists serve as educators, empowering patients with knowledge about their anatomy, the impact of PFD, and effective techniques for self-management. This education extends beyond the clinic, contributing to the broader goal of improving sexual health literacy among the general population, especially young individuals.

Looking ahead, the author's career in physiotherapy will have a dual focus. On one hand, the author aims to specialize in maternity physiotherapy to address the unique needs of pregnant individuals. Simultaneously, the author

is interested in broadening our understanding of pelvic floor dysfunctions. This involves studying how these dysfunctions affect not just women but also men, transgender individuals, and children. The goal is to offer more comprehensive care and contribute to the advancement of physiotherapy.

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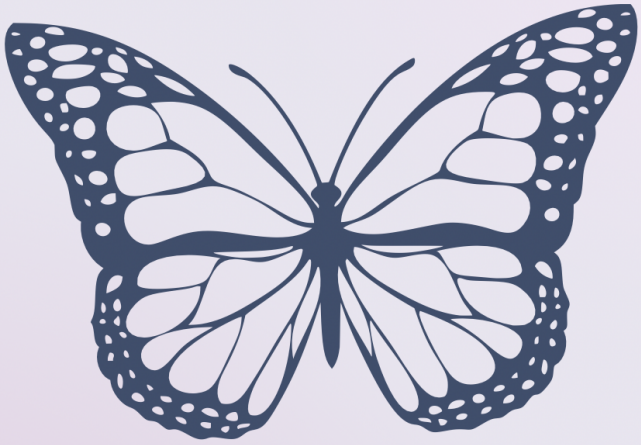

SUHK mama
Naisten Fysioterapiakeskus
& Pilates Studio

ROSA MÄNNISTÖ

samk

Työ on luotu tukemaan kokonaisvaltaista hyvinvointia ja lisäämään tietoisuutta sekä keskustelua vähän puhutusta aiheesta. Jokainen ansaitsee kokea nautintoa omalla tavallaan, eikä kivun tulisi estää tai rajoittaa sitä.

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SISÄLLYSLUETTELO

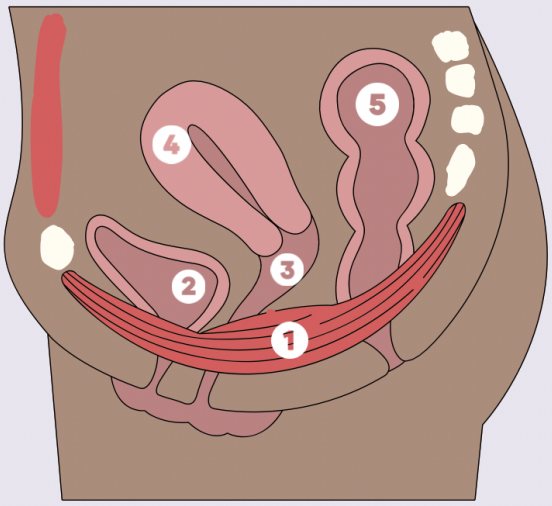
MISTÄ LANTIO MUODOSTUU

Lantio muodostuu viidestä eri luusta, kolmesta eri lihaskerroksesta ja useasta eri kalvo -ja jännerakenteesta. Lantioon kiinnittyy lantionpohjan lihasten (1) lisäksi, lihaksia keskivartalosta ja alaraajoista. Kalvorakenteet yhdistävät lantion myös muualle kehoon.

Lantionpohjan tuki mahdollistaa mm. ryhdin ylläpysymisen, ulostamisen, virtsaamisen, sekä seksuaalitoimintinnot.

Lantionpohjan toimintaan vaikuttaa perimän lisäksi: elintavat, fyysiset ja henkiset traumat sekä erilaiset infektiot ja sairaudet.

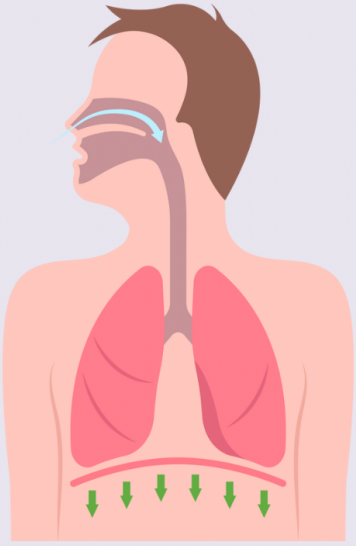
Lantio toimii yhteistyössä keskivartalon kanssa. Vatsalihakset, pallea ja lantionpohjan lihakset luovat vahvan tynnyrin, joka **toimii perustana kaikelle liikkeelle.** Tynnyri pitää sisällään elimiä kuten: virtsarakko (2), vagina (3), kohtu (4) ja peräsuoli (5)

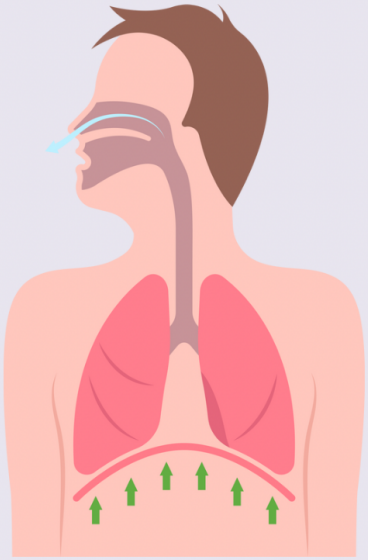


LANTIONPOHJA JA HENGITYS

Sisään hengittäessä, pallea painuu alas laajentaen kylkiluita ulospäin, jolloin vatsan paine suuntautuu kohti lantionpohjaa. Lantionpohja myötäilee pallean liikettä alaspäin.

Lantionpohjan syvä rentoutuminen mahdollistuu parhaiten sisäänhengityksen aikana.





Ulos hengittäessä, päinvastainen tapahtuu: pallea kohoaa, tehden sisäelimille lisää tilaa ja mahdollistaen lantionpohjan lihasten aktivoitumisen. Supistuessa lantionpohjan lihakset kohoaa kohti palleaa.

Lihasten aktivoituminen onnistuu parhaiten uloshengitystä hyödyntäessä.

Pallean ja lantionpohjan yhteistyö on tärkeä osa suoliston terveyttä.

MIKSI YHDYNTÄ VOI OLLA KIVULIASTA?

Intiimit hetket voivat olla kivuliaita monesta syystä.
Perimän ja elintapojen aiheuttamien toimintahäiriöiden, kuten ylijännittyneen lantionpohjan (hypertonia) ja heikosti toimivan lantionpohjan (hypotonia), lisäksi endometrioosi, vulvodynia, vaginismus, arvet ja limakalvojen kuivuus voivat aiheuttaa kipua lisääntymiselinten pinnalla ja/tai sisällä. Kipu saattaa ilmetä ennen seksiä, seksin aikana tai seksin jälkeen.

Intiimien hetkien aiheuttama kipu voi altistaa muun muassa masennukselle, omakuvan vääristymiselle sekä parisuhdeongelmille.

Kipua tulee hoitaa monesta näkökulmasta käsin, kuunnellen omaa hyvinvointia. Henkinen hyvinvointi vaikuttaa fyysiseen hyvinvointiin ja päinvastoin.

Mahdollisimman kivuton seksuaalinen kanssakäyminen on jokaisen oikeus. Seksuaaliterapia voi tarjota arvokasta tukea ja ohjausta matkalla kohti parempaa seksuaalista hyvinvointia ja oman näköistä seksielämää.

Hypertoninen lantionpohja:

Lihasten ylijännitystila voi syntyä fyysisistä ja/tai henkisistä kuormituksista johtuen.

Hoitomenetelmät:

Lantionpohjan harjoitteet, manuaalinen käsittely, tarvittaessa elintapojen muutos., manuaalinen käsittely, tarvittaessa elintapojen muutos.

Hypotoninen lantionpohja:

Usein fyysisestä traumasta johtuva lantionpohjan lihasten / hermotuksen toimintahäiriö tai sidekudosten löystyminen.

Hoitomenetelmät:

Pre- ja post operatiivinen fysioterapia, lantionpohjan harjoitteet.

Vulvodynia:

Ulkosynnyttimen kiputila, jossa kipu provosoituu kosketuksesta tai ilman kosketusta.

Hoitomenetelmät:

Psykofyysinen fysioterapia, bio-palaute, sähköhoito ja manuaalinen käsittely.

Endometrioosi:

erityisesti sisäsynnyttimen alueella esiintyvä kiputila, jossa kipu provosoituu erityisesti kuukautisten aikana.

Hoitomenetelmät:

Lantionpohjan harjoitteet, manuaalinen käsittely, bio-palaute ja sähköhoito.

Vaginismus:

Trauman tai kivun seurauksena alkanut lantionpohjan lihasten tahaton jännitys voi aiheuttaa kipua ja vaikeuttaa penetraatiota.

Hoitomenetelmät:

Vaginismus esiintyy usein vulvodyniaa sairastavilla, jonka vuoksi hoitomenetelmät ovat pitkälti samat.

LANTIONPOHJAAN TUTUSTUMINEN

Tiedostaminen:

Lantionpohjan harjoittelun voi aloittaa tekemällä tunnistamisharjoituksia, **kuuntelemalla kehoa pitkin päivää.**

Kiinnitä huomiota siihen, miten lantionpohja nousee ylöspäin hengitettäessä ja laskeutuu sisään hengitettäessä.
Seuraa myös, miten lantionpohja liikkuu eri liikkeiden mukana ja miten se reagoi eri tunnetiloihin.

Tunnusteleminen päältä:

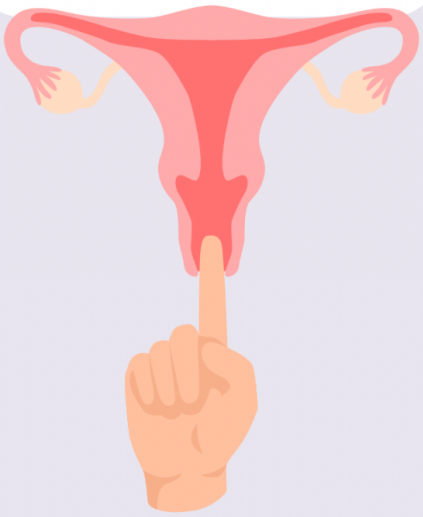
Vaatteiden päältä voit hellästi tutkia alavatsaa, lantionpohjaa ja/tai mahdollista arpea. Kun hallitset lihasten oikeanlaista jännitystä ja rentoutumista, **voit tehostaa tiedostamista tunnustelemalla.**

Lepuuta kättä vulvan tai anuksen yläpuolella ja tunnustele: tuntuuko käden alla liikettä poispäin (ylöspäin) jännittäessä. Rentoutuessa lantionpohjan tulisi palata käden kohdalle. Harjoitusta voi myös tehdä paljasta ihoa vasten.

Tarkasteleminen:

Voit käyttää peiliä apuna selin maaten tai istuessa WC-istuimella tutkiaksesi, miltä lantionpohja näyttää ja tuntuu. Voit havainnoida lihasten liikettä, tuntea mahdollisia kivuliaita kohtia sekä tunnistaa kivuttomat alueet.

Jos huomaat kivuttomia kohtia, voit merkitä ne muistiin käyttäen apuna kellotaulua: esimerkiksi jos kivuton alue on vulvan vasemman häpyhuulen keskiosassa, se vastaa kello kolmea kellotaulussa.



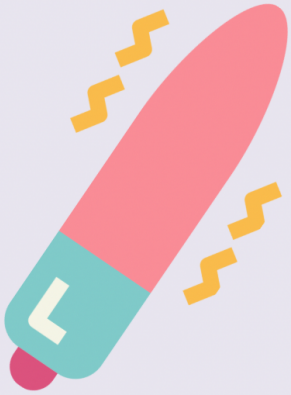
Tunnusteleminen sisältä:

Voit tunnustella lantionpohjaa sisältä esimerkiksi seuraavasti: Istu wc-istuimella, laita peukalosi emättimen sisälle ja nojaa kyynerpäällä polveen. **Pyri rentoutumaan mahdollisimman paljon.**
Sormen voit asettaa emättimeen uloshengityksen aikana ja ottaa sen pois sisäänhengityksen aikana. Lantionpohjan lihasten jännitys voi tuntua kuin imuna ylöspäin tai väreilynä. Rentoutumisen tulisi tuntua neutraalilta, ja vatsan paineen ohjaaminen alaspäin tuntuu kuin työntönä alaspäin.

SEKSUAALITERVEYDEN APUVÄLINEET

Vibraattori:
Tärinää tai alipaine-aaltoja voidaan hyödyntää lihasten aktivoimiseen, rentoutumiseen sekä arpien käsittelyyn.

Sen sijaan, että käytettäisiin tasaisen tasaista tärinää, sykkivä tärinä auttaa hahmottamaan aktivoimisen ja stimuloimaan tuntoa tehokkaammin.



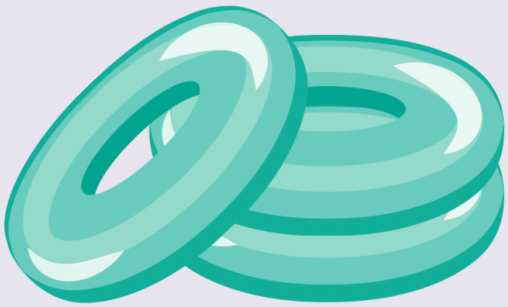
Dilataatio:
Dilataattori on ulkoisesti neutraalin näköinen, eri kokoisia oleva tuote, joka muistuttaa dildoa. Sitä käytetään lantionpohjan rakenteiden käsittelemiseen ja rentouttamiseen.

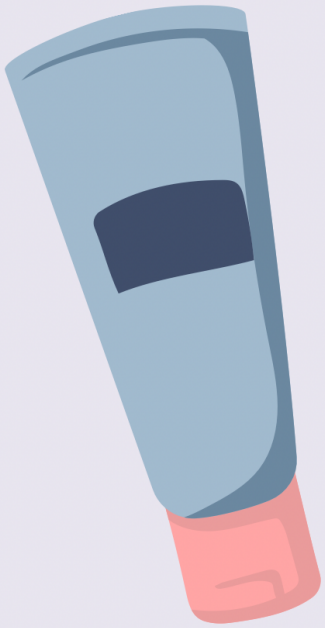
Dilataatiotuotteita voi hyödyntää esimerkiksi arpien käsittelyssä, kireiden lihasten venyttämisessä sekä kipupisteiden siedättämisessä ja käsittelemisessä.

Bufferi:

Penetraation pohjaan asetettava "puskuri" on käyttökelpoinen väline ulkosynnyttimen kiputilojen lievittämiseen tai liian syvän penetraation estämiseen.

On tärkeää keskustella kumppanin kanssa etukäteen rajoista ja kivun kunnioittamisesta ennen seksuaalista kanssakäymistä.





Liukuvoiteet:

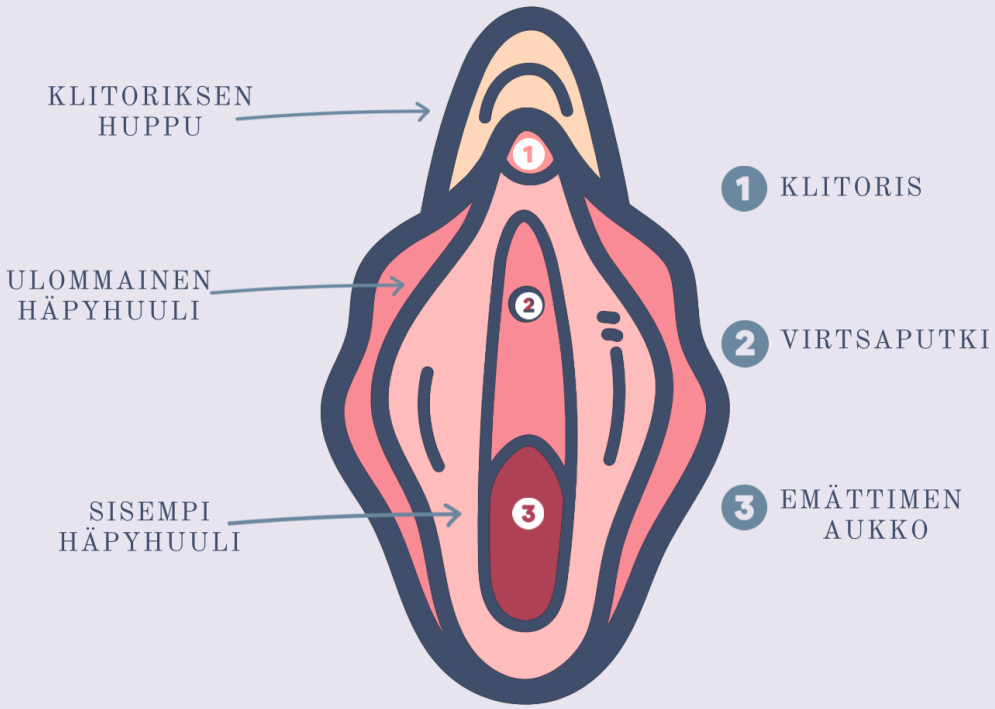
Liukuvoiteen käyttö on suositeltavaa kaikenikäisille, erityisesti silloin kun luonnollinen liukuvoide ei ole riittävää.

Luonnollisen liukastumisen määrään vaikuttavat tekijät kuten mieliala, hormonitasapaino, ehkäisymenetelmät ja nesteytys.

Liukasteita on saatavilla erilaisia, kuten öljy-, vesi- ja silikonipohjaisia vaihtoehtoja.

ULKOSYNNYTTIMEN KIPU

Vulvodynia on yleisin yhdyntäkipujen aiheuttaja 18-40-vuotiailla, mutta myös muita oireiden aiheuttajia esiintyy. Oireet voivat ilmetä esimerkiksi pyöräillessä, ja kipu saattaa säteillä sisäreisiin. **Yhdynnät, jotka saattavat aiemmin olleet kivuttomia, voivat nyt tuottaa kipua tai kipu on voinut olla aina läsnä.** Kipu voi johtua henkisistä tai fyysisistä traumoista, kuten sukuelinten silpomisesta.
Tutkitusti toimivia fysioterapeuttisia hoitomenetelmiä ovat siedätyshoito, lantionpohjan harjoitukset (voima- ja rentoutumisharjoitukset), manuaalinen hoito, bio-palaute, sähköhoito, psykofyysinen fysioterapia sekä ymmärryksen lisääminen aiheesta.



PINNALTA KÄSITTELY

Lantionpohjan hoitoa voidaan toteuttaa vaatteiden päältä sekä sukupuolielinten pinnalta käsin. **Tavoitteena on parantaa lantionpohjan rakenteiden toimintakykyä ja joustavuutta sekä lisätä kosketuksen sietämistä.** Hoito sisältää erilaisia tekniikoita, kuten kipupisteiden painelua, kudoksen lämmittämistä apuvälineiden avulla, lantionpohjan lihasten venyttelyä ja faskioiden mobilisointia.

Hoidon aikana voit kuvitella jalkojen väliin kuvitteellisen kellotaulun, jossa klo 12 on ylhäällä, klo 3 vasemmalla ja klo 9 oikealla. Tämä auttaa hahmottamaan kivuttomat alueet selkeämmin. **Hoitoa voi suorittaa myös luotettava kumppani, jos niin haluaa.**

"Piirakan rypytys":

Pintafaskioiden käsittely onnistuu peukalon ja etusormen otteella, ottaen kiinni ulommasta häpyhuulesta.

Aloita ylhäältä ja purista varovasti. Puristaessa voit kevyesti kierrättää ja vetää, liikuttaen kohtaa kohti emättimen aukkoa.
Emättimen aukon kohdalla tee vetoliike ylös-alas ja sivusuunnassa. Tämä venyttää kevyesti emättimen aukon pintaa.

Toista 1-3 kertaa molemmilla puolilla.

Kipupisteiden epäherkistäminen:

On suositeltavaa kosketella kipeitä kohtia päivittäin, jotta ne tottuisivat kosketukseen.

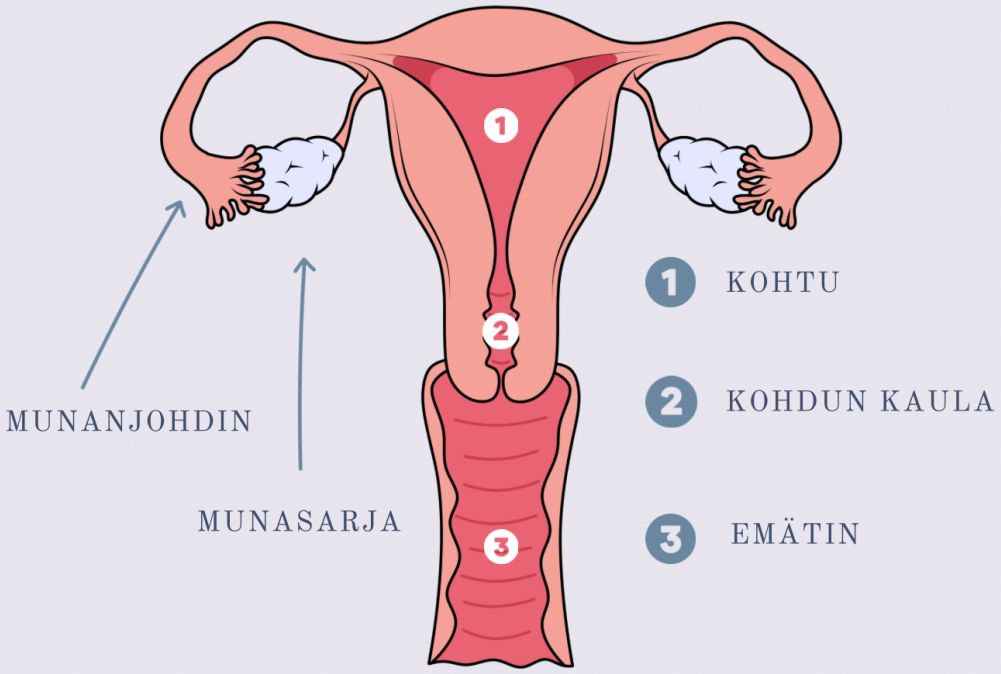
Koskettele emättimen kipupisteitä rauhallisesti, kellotaulua noudattaen. Pysähdy kipeiden kohtien kohdalla. Kosketuksen ei tule tuottaa kipua ja hoidon aikana on tärkeää pysyä mahdollisimman rentona.

Pisteiden siedättyessä kosketukseen, lisää painetta ja sormen liikettä, sivelyä ja pyörittelyä, vähitellen oman sietokyvyn mukaan. Etene omaan tahtiin ja keskity miellyttävään kosketukseen.

SISÄSYNNYTTIMEN KIPU

Kuten ulkosynnyttimen kipu, sisäsynnytin kipu voi oireilla arkisissa askareissa kuten tamppoonia asettaessa ja kipu ei välttämättä ole ollut aina läsnä. Kipu saattaa myös olla ajottain läsnä, kuten yhdynnän alussa, helpottaen pikkuhiljaa.

Fysioterapian saralla toimiviksi todettuja hoitomenetelmiä ovat: Lantionpohjan harjoitteet (voima - sekä rentoutumisharjoitukset), manuaalinen hoito, bio-palaute, sähköhoito, psykofyysinen fysioterapia sekä aiheeseen liittyvän ymmärryksen lisääminen.



JÄNNITTYNEEN LANTIONPOHJAN KÄSITTELY

Passiivinen venytys suoritetaan seuraavasti:

Ota mukava ja rento asento, esimerkiksi istuen WC-pöntöllä painon ollessa kevennetty venytettävällä puolella. Aseta sormi tai dilataatioputki varovasti emättimeen. Paina varovasti ja hellävaraisesti takaviistoon alas (kello 5 tai 7 -asennossa, aloita helpommasta kulmasta). Pidä venytystä noin 3-5 sekunnin ajan. Vapauta venytys ja lopeta painaminen. Toista venytys noin 5 kertaa.

Tämä harjoitus venyttää lantionpohjan alueen lihaksia ja voi tuoda helpotusta kiputiloihin. Tee harjoitus varovasti ja kuuntele kehoa koko ajan.

Lantionpohjan käsittely tennispallolla:

Asettele pallo kovalle alustalle niin, että se tuntuu mukavalta vulvan alla. Pehmennä tuntumaa tarvittaessa lisäämällä pyyhe väliin.

Tuo ensin istuinluut yhteen ja rentouta. Tunne pallon reunat.

Supista peräaukko, emätin ja virtsaputki. Nosta ne ylös ja päästä ne alas rentouttamalla lantionpohja. Tunne pallon takaosa.

Tuo istuinluu kohti häpyluuta tai lähennä istuinluita toisiaan kohti. Imaise kevyesti emätin ja virtsaputki ylös.

Päästä rennoksi ja vielä rennommaksi. Tunne pallon keskikohta.

Jännitys - rentoutus:

Ota mukava, rentoutunut puolimakaava asento.Aseta sormi tai dilataatioputki varovasti emättimeen.

Paina hellävaraisesti takaviistoon alaspäin.

Pidä venytys noin 3-5 sekunnin ajan.

Vapauta venytys ja lopeta painaminen, mutta pidä sormi paikoillaan.

Supista lantionpohjan lihaksia kevyesti 2-4 sekunnin ajan.

Rentouta lihakset ja jatka painamista takaviistoon alaspäin.

Toista harjoitusta noin 5 kertaa.

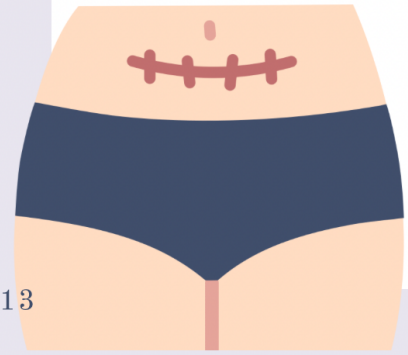
TOISTA HARJOTTEITA 2-3 PÄIVÄN VÄLEIN, N. 3-4 KUUKAUDEN AJAN

ARPIKUDOKSEN KÄSITTELY

Arpikudoksen käsittelyllä pyritään vaikuttamaan arven paranemiseen, sen väriin ja kireyteen. Jopa vanhaa arpikudosta voi ja tulisi käsitellä, sillä kiristävä arpi saattaa aiheuttaa kipua ja rajoittaa kehon toimintakykyä.

Arven käsittelyn, erittäin hellän silittelyn, voi aloittaa heti kun haava on peitetty ihoteipillä. Ajoissa aloitettu käsittely auttaa estämään arven liiallista herkistymistä.
Kun haava on umpeutunut, yleensä noin kolmen viikon jälkeen, voit alkaa käsitellä arpea ja sen ympäristöä enemmän, pyörittelemällä arven lähellä olevaa ihoa ja levittämällä arvelle rasvaa.

Käsittely edistää arven aineenvaihduntaa ja kollageenin muodostumista, mikä parantaa arven väriä, joustavuutta ja vähentää kipua. **Arpea voi käsitellä esimerkiksi tärinällä tai kevyillä alipaine-aalloilla**. Limakalvon arpia käsiteltäessä voi hyödyntää vaseliinia.



RENTOUTUMINEN

Lantionpohja reagoi paitsi fyysiseen kuormitukseen myös henkiseen rasitukseen. Taidot rentouttaa ovat yhtä tärkeitä kuin supistamistaidot, sillä ne voivat auttaa ehkäisemään kipua yhdynnän aikana.
Rentoutumista voi harjoitella esimerkiksi manuaalisen käsittelyn yhteydessä tai sen jälkeen. Myös lihasvoimaharjoittelulla voi edistää rentoutumista. Kiinnitä huomiota koko kehon rentouttamiseen pitkin päivää ja tietoisesti tehosta rentoutumista tilanteissa, jotka voivat jännittää. **Tämä kaikki voi auttaa välttämään epämukavuutta ja kipua seksuaalisissa tilanteissa.**

Rentoutus - hengitysharjoitus selinmakuulla

Kevyesti uloshengittäessä, supista lantionpohjaa vähän. Hengittäessä kevyesti sisään, rentouta lantionpohjan lihakset tietoisesti.

Lisätäksesi liikkuvuutta ja rentoutumista, liu'uta käsillä vatsan ihoa hengityksen tahdissa.

Ulos hengittäessä liu'uta käsiä ylös kohti rintakehää ja sisään hengittäessä alas kohti häpyluuta.

Rentoutusta tulee harjoitella myös eri asennoissa. Viereisen harjoitteen voi tehdä myös istuen, seisten ja liikkeessä. Istuessa harjoitusta voi tehostaa kevyesti tunnustelemalla lantionpohjan liikettä housujen päältä.

LIHASVOIMA

Lihasvoiman harjoittaminen on tutkitusti hyödyllistä yhdyntäkipujen lievittämisessä. Se parantaa verenkiertoa, rentouttaa lihaksia ja edistää luonnollisen liukasteen muodostumista. Lisäksi voimaharjoittelu tukee lantionpohjan tuntoaistin paranemista ja auttaa hallitsemaan kehon ja kivun tuntemuksia. **Huomioi, että oikea tekniikka on olennaista, ja lantionpohjan fysioterapia voi olla avuksi erityisesti kiputilanteissa.**

Laurea-ammattikorkeakoulun opiskelija Iida Viitasen vuonna 2022 SuhkMamalle tekemän opinnäytetyön mukaan lantionpohjan lihasvoimaa tulisi harjoittaa ohjeistuksen mukaisesti taulukon avulla:

	Kestovoima	**Maksimivoima**	**Nopeusvoima**
Toistomäärä	10	8	10
Supistuksenkesto	10 - 20 s	5-10 s	Nopea (muutama s)
Intensiteetti	Kevyt (10 -50%)	Voimakas (90 -100%)	Kohtalainen (30-80%)
Palautuminen toistojen välillä	10 -20 s	10 - 20 s	Muutama s

Viitasen mukaan lantionpohjan lihasvoiman lisäämiseksi harjoittelua tulisi toteuttaa noin 3 - 5 kertaa viikossa ja harjoitteita tulisi jatkaa noin 2 kuukauden ajan. Voiman ylläpitämiseksi riittää 1 - 2 harjoittelukertaa viikossa.

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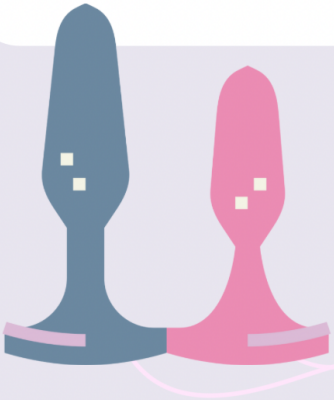
HARJOITTELUN AIKAAN NOUSSEITA MIETTEITÄ:

SÄHKÖHOITO SISÄLTÄ

Lantionpohjan kiputiloja voidaan sisäisesti hoitaa sähkön avulla, joko tehostamalla lantionpohjan harjoituksia tai antamalla kipua lievittävää sähköhoitoa. Sisäisessä hoidossa käytetään erikokoisia antureita, jotka asetetaan emättimeen. Anturit ovat aina henkilökohtaisia ja niitä voi käyttää useasti, kunhan puhdistus on tehty huolellisesti. Limakalvoja tulee hoitaa ennen ja jälkeen hoidon. Anturin mukaan se voidaan yhdistää TENS- ja/tai EMG-laitteeseen. On tärkeää huomata, että sähköhoitoa ei tule käyttää kuukautisten tai alatie-infektioiden aikana. Ennen sähköhoidon aloittamista on suositeltavaa keskustella fysioterapeutin kanssa.
Keskustele fysioterapeutin kanssa ennen sähköhoidon aloittamista.

Kipusähkö:
Samanlainen taajuus (Hz) ja kestoaika (ms) voidaan käyttää sisäisessä sähköhoidossa kuin päältä annettavassakin sähköhoidossa. Hoitoaika vaihtelee 5 - 30 minuutin välillä, enintään joka toinen päivä. hoidon aikana tulee käyttää vesipohjaista liukastetta.



Sähkön avulla pyritään parantamaan lantionpohjan hallintaa ja lisäämään alueen aineenvaitoa

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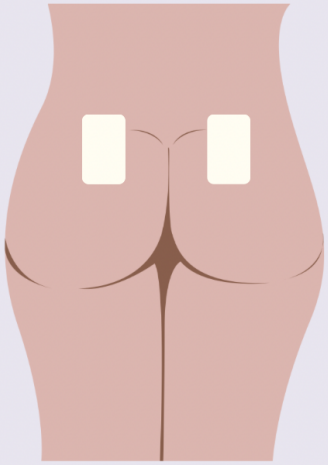
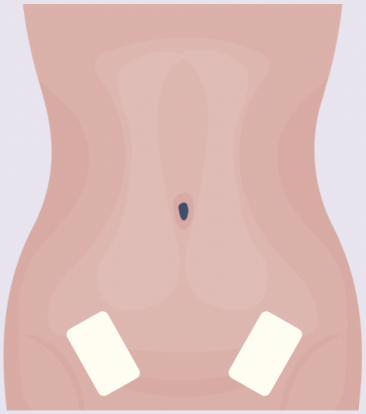
KIVUN LIEVITYS PINNALTA KÄSIN- TENS

Akuutti kipu - Porttikontrolliteoria:

Estetään kipuviestin pääseminen aivoihin.
60 - 120 Hz
50 - 200 Ms
Kuukautiskipuun/vastaavaan:
100Hz/100Ms
Hoitoaika: 30 -90 min (1-3 x/pvä)





Krooninen kipu - Endorfiiniteoria:

Pyritään tuottamaan "hyvän olon - hormoneja"
1-5Hz
50 - 200 Ms
Jos rakkoa täytyy rauhoittaa:
10Hz / 50 - 200Ms
Hoitoaika: 30-90min

MISTÄ SAAN APUA?

Tukea uskonnollisissa yhteisöissä vaikeuksiin joutuneille ja näiden läheisille:
www.Uskontojenuhrientuki.fi

Tukea väkivaltaa tai sen uhkaa kokeneille naisille ja läheisille:
www.Naistenlinja.fi

Tukiryhmä vaikeissa ja turvattomissa oloissa eläville lapsille ja perheille:
www.Ensijaturvakotienliitto.fi

Maksutonta neuvontaa seksuaalisuuden, seksin, sukupuolisuuden ja ihmissuhteiden kysymyksissä:
www.Sexpo.fi

Vertaistukea endometrioosia,adenomyoosin,PCOS:n ja vulvodynian kanssaa eläville:
www.Moona.info

Apua väkivaltaa käyttäneiden/-vien tai omia väkivaltaisia ajatuksia pelkääville:
www.Mariaakatemia.fi

KYSELY KESKUSHERMOSTON HERKISTYMISESTÄ -OSA A

1. TUNNEN HERÄTESSÄNI OLONI VÄSYNEEKSI JA VIRKISTYMÄTTÖMÄKSI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

2. LIHAKSENI TUNTUVAT JÄYKILTÄ JA KIPEILTÄ

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

3. MINULLA ON AHDISTUNEISUUSKOHTAUKSIA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

4. NARSKUTTELEN HAMPAITANI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

5. MINULLA RIPULIA JA/TAI UMMETUSTA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

6. TARVITSEN APUA SUORIUTUAKSENI PÄIVITTÄISISTÄ TOIMINNOISTANI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

7. OLEN HERKKÄ KIRKKAILLE VALOILLE

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

8. VÄSYN HYVIN HELPOSTI OLLESSANI FYYSISESTI AKTIIVINEN

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

9. TUNNEN KIPUA KAIKKIALLA KEHOSSANI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

10. MINULLA ON PÄÄNSÄRKYÄ

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

11. TUNNEN EPÄMUKAVUUTTA JA/TAI POLTETTA VIRTSATESSANI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

12. EN NUKU HYVIN

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

13. MINULLA ON KESKITTYMISVAIKEUKSIA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

14. MINULLA ON IHO-ONGELMIA KUTEN IHON KUIVUMISTA, KUTINAA TAI IHOTTUMAA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

15. STRESSI PAHENTAA FYYSISIÄ OIREITANI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

16. TUNNEN OLONI SURULLISEKSI TAI MASENTUNEEKSI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

17. ENERGIATASONI ON MATALA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

18. MINULLA ON NISKA-HARTIASEUDUN LIHASJÄNNITYSTÄ

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

19. MINULLA ON LEUAN ALUEEN KIPUA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

20. TIETYT HAJUT, KUTEN HAJUVEDET, SAAVAT MINUSSA AIKAAN HUIMAUSTA JA PAHOINVOINTIA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

21. MINUN TÄYTYY KÄYDÄ VIRTSAAMASSA USEASTI

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

22. JALKANI TUNTUVAT EPÄMUKAVILTA JA LEVOTTOMILTA KUN YRITÄN NUKAHTAA ILLALLA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

23. MINULLA ON VAIKEUKSIA MUISTAA ASIOITA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

24. OLEN KÄRSINYT LAPSENA TRAUMAN

EI KOSKAAN HARVOIN JOSKUS USEIN TOISTUVASTI

25. LANTIONI ALUEELLA ON KIPUA

EI KOSKAAN HARVOIN JOSKUS USEIN AINA

YHTEENSÄ:

KYSELY KESKUSHERMOSTON HERKISTYMISESTÄ -OSA B

1 LEVOTTOMAT JALAT OIREYHTYMÄ

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

2 KROONINEN VÄSYMYSOIREYHTYMÄ

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

3 FIBROMYALGIA

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

4 PURENTAELIMISTÖN TOIMINTAHÄIRIÖ

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

5 MIGREENI TAI JÄNNITYSPÄÄNSÄRKY

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

6 ÄRTYVÄN SUOLEN OIREYHTYMÄ

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

7 USEITA KEMIKAALIYLIHERKKYYKSIÄ

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

8 NISKAVAMMA (MUKAAN LUKIEN PIISKANISKUVAMMA)

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

9 AHDISTUNEISUUSHÄIRIÖ TAI PANIIKKIKOHTAUKSET

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

10 MASENNUS

EI KYLLÄ DIAGNOSOINTIVUOSI:_____

	MA	TI	KE	TO	PE	LA	SU

	MA	TI	KE	TO	PE	LA	SU

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