THE EMOTIONAL JOURNEY OF VULVODYNIA

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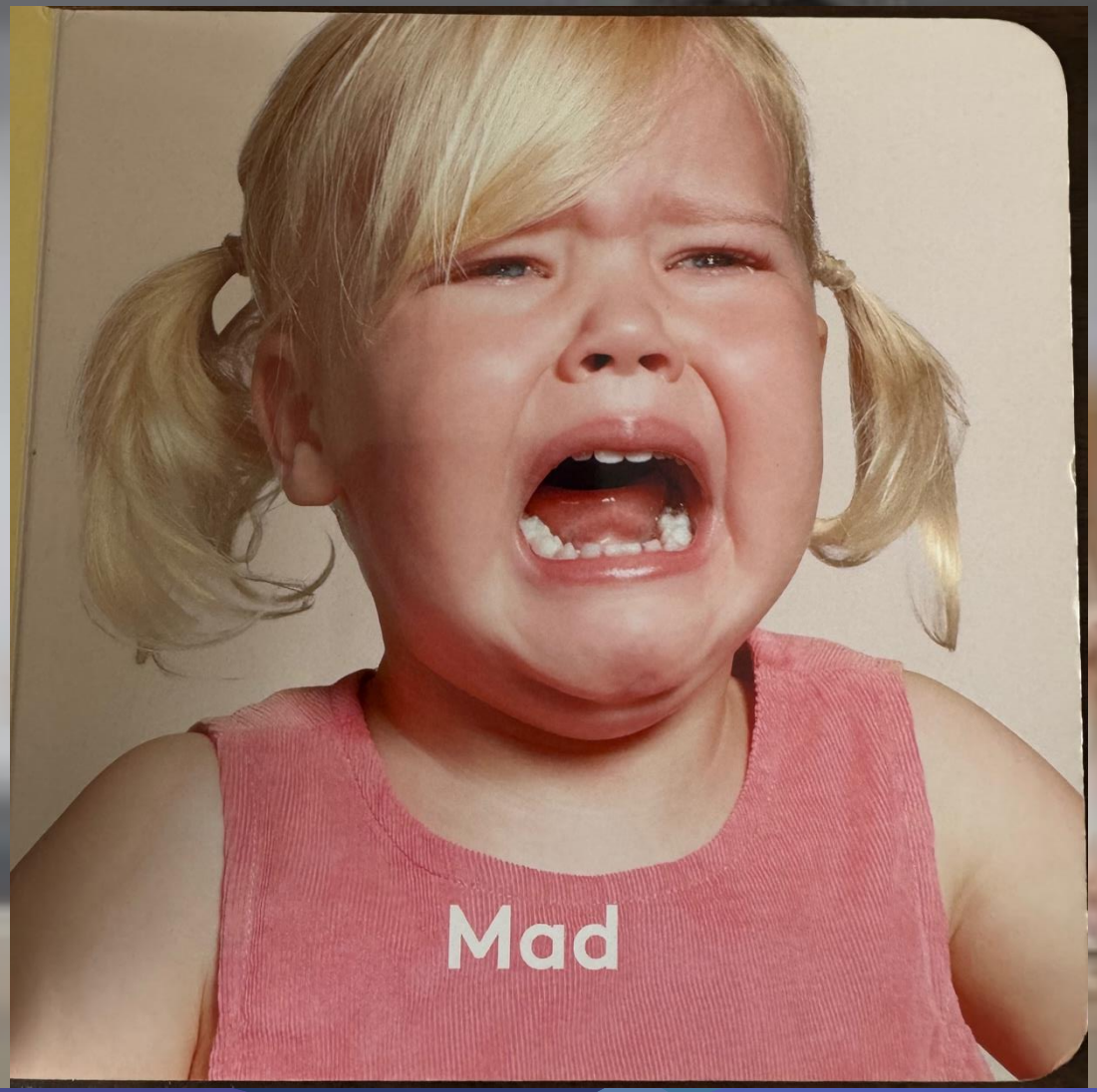
NO DISCLOSURES

AI WAS USED TO HELP WITH LITERATURE REVIEW

Image from Lovevery

C...	Provider Video	Status	Time	Type	Notes
		Scheduled	3:00 PM	HOME TELEHEALTH	Vulvodynia



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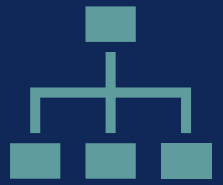
LEARNING OBJECTIVES



- Define vulvodynia and its subtypes

- Review symptom presentation and outline diagnostic approach

- Discuss evidence-based treatment strategies and highlight emerging research directions

DEFINITION & EPIDEMIOLOGY

- Chronic vulvar pain ≥3 months without identifiable cause
- Prevalence: 8–16% of women
- Often underdiagnosed

DIFFERENTIAL DIAGNOSIS

- Infections
- Dermatoses
- Neoplasia
- Trauma
- Hypoestrogenic state/long term hormonal suppression
- Neurologic
- Postoperative

A. Vulvar pain caused by a specific disorder*

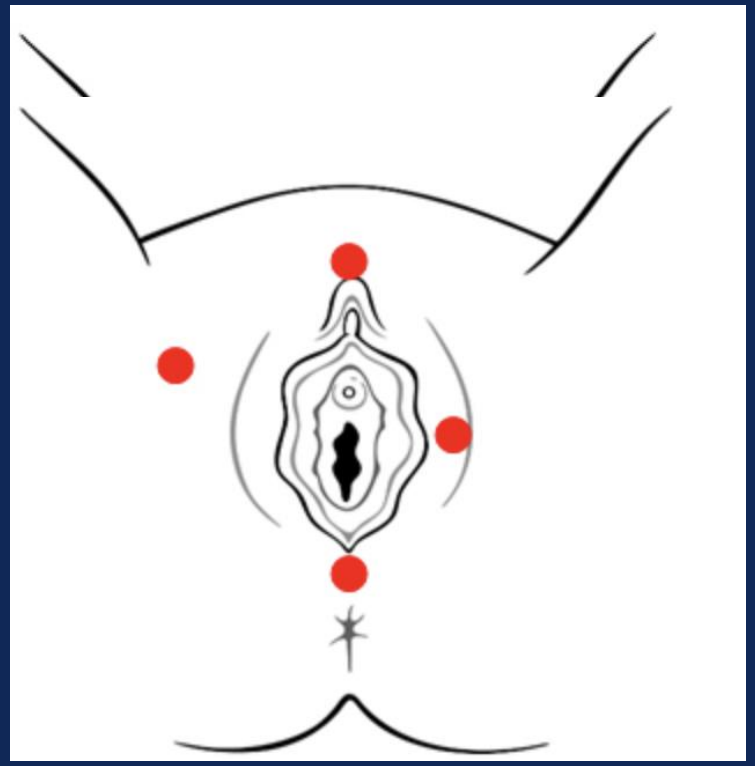
- Infectious (eg, recurrent candidiasis, herpes)
- Inflammatory (eg, lichen sclerosus, lichen planus, immunobullous disorders)
- Neoplastic (eg, Paget disease, squamous cell carcinoma)
- Neurologic (eg, postherpetic neuralgia, nerve compression or injury, neuroma)
- Trauma (eg, female genital cutting, obstetrical)
- Iatrogenic (eg, postoperative, chemotherapy, radiation)
- Hormonal deficiencies (eg, genitourinary syndrome of menopause [vulvovaginal atrophy], lactational amenorrhea)

B. Vulvodynia—vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors.

The following are the descriptors:

- Localized (eg, vestibulodynia, clitorodynia) or generalized or mixed (localized and generalized)
- Provoked (eg, insertional, contact) or spontaneous or mixed (provoked and spontaneous)
- Onset (primary or secondary)
- Temporal pattern (intermittent, persistent, constant, immediate, delayed)

* Women may have both a specific disorder (eg, lichen sclerosus) and vulvodynia.



Appendix: potential factors associated with vulvodynia*

- Comorbidities and other pain syndromes (eg, painful bladder syndrome, fibromyalgia, irritable bowel syndrome, temporomandibular disorder; level of evidence 2)
- Genetics (level of evidence 2)
- Hormonal factors (eg, pharmacologically induced; level of evidence 2)
- Inflammation (level of evidence 2)
- Musculoskeletal (eg, pelvic muscle overactivity, myofascial, biomechanical; level of evidence 2)
- Neurologic mechanisms
  - Central (spine, brain; level of evidence 2)
  - Peripheral: neuroproliferation (level of evidence 2)
- Psychosocial factors (eg, mood, interpersonal, coping, role, sexual function; level of evidence 2)
- Structural defects (eg, perineal descent; level of evidence 3)

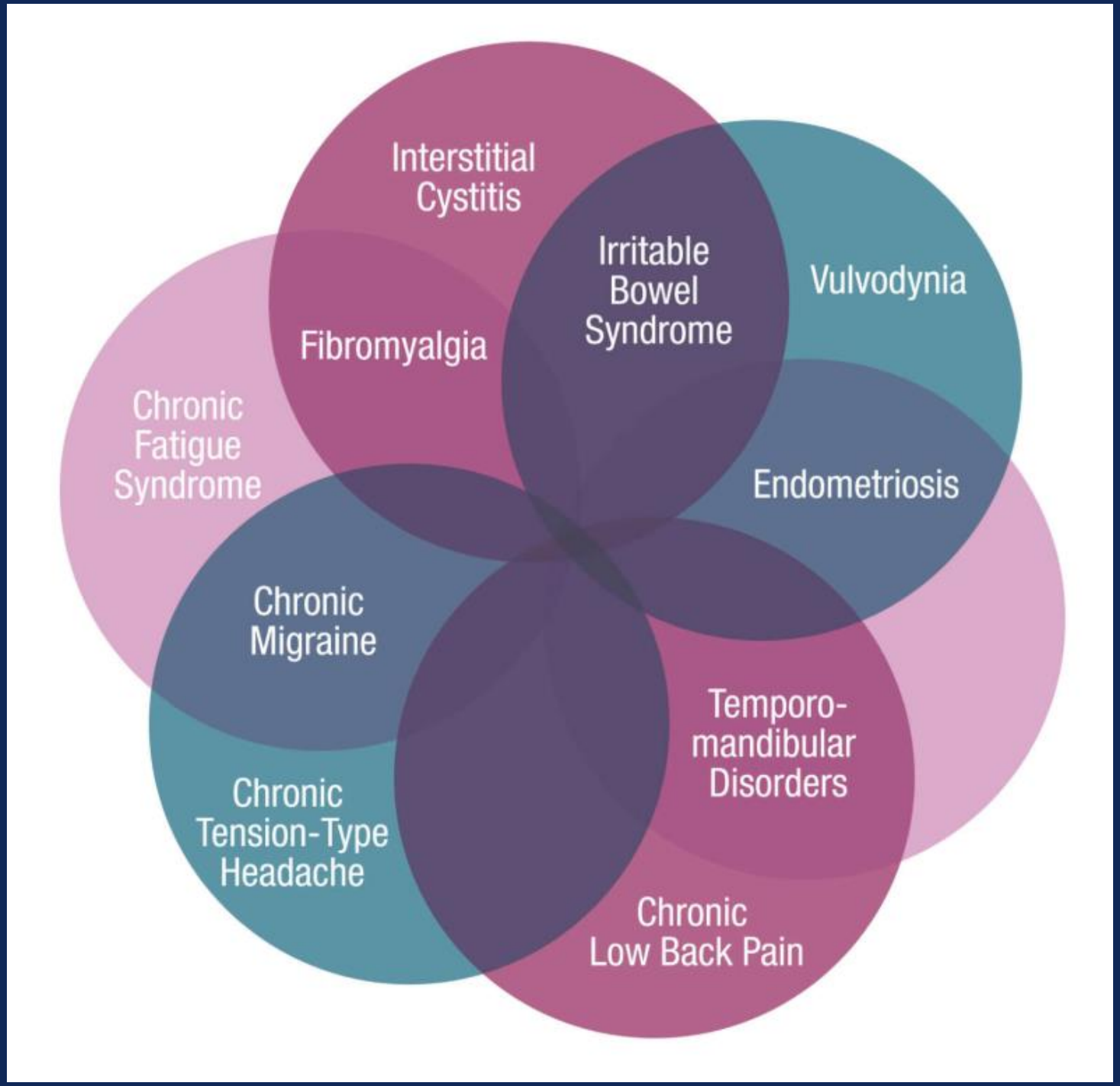


Image from Chronic Pain Research Alliance

PRESENTATION

- • Burning, stinging, rawness, often no visible lesions
- • Pain provoked by intercourse, tampon insertion, tight clothing
- • Impacts sexual function and quality of life

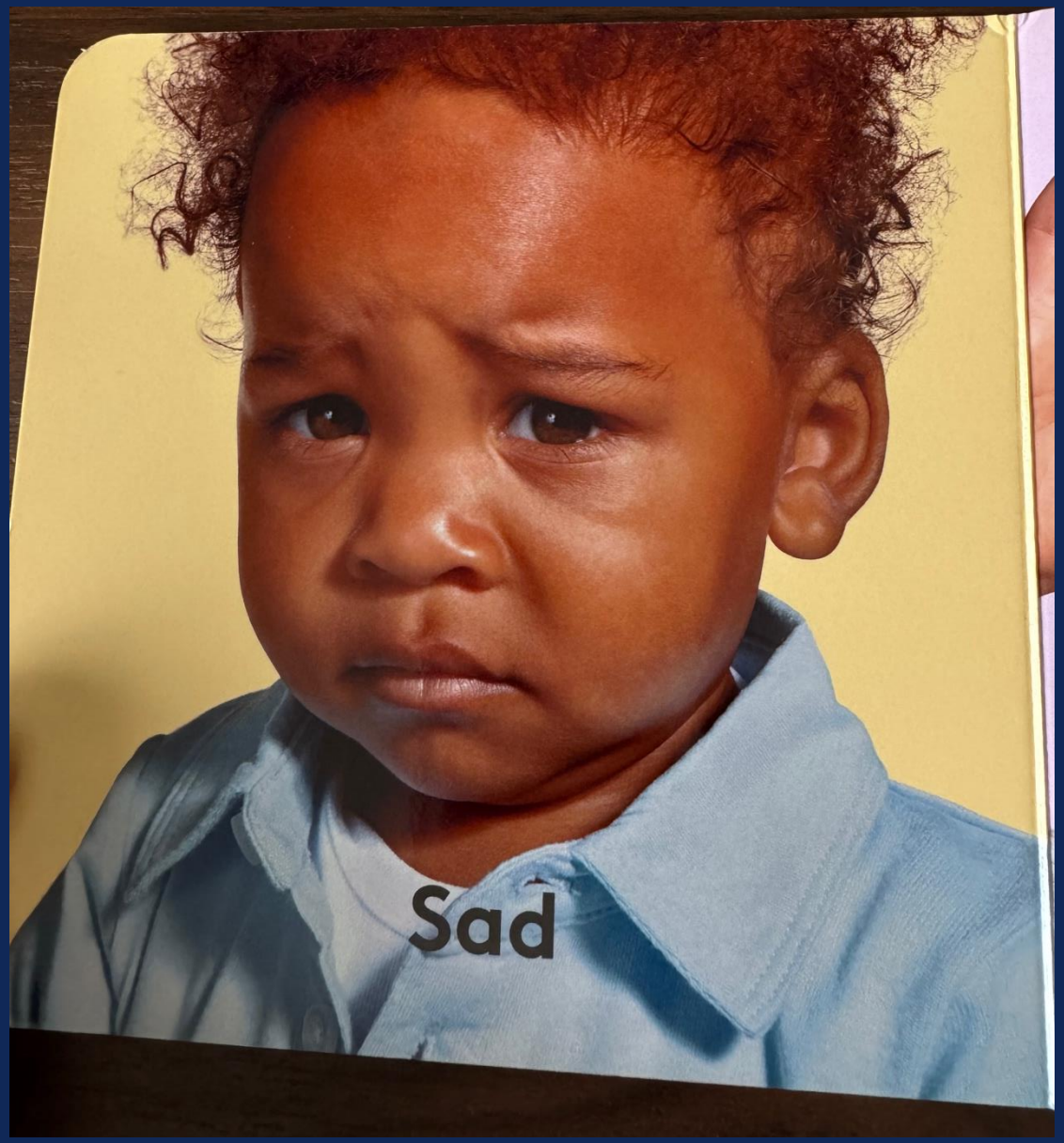
HISTORY

History: onset, duration, triggers, psychosocial context

Prior treatments

FIFE:

F- Feelings	I- Ideas	F- Function	E- Expectations



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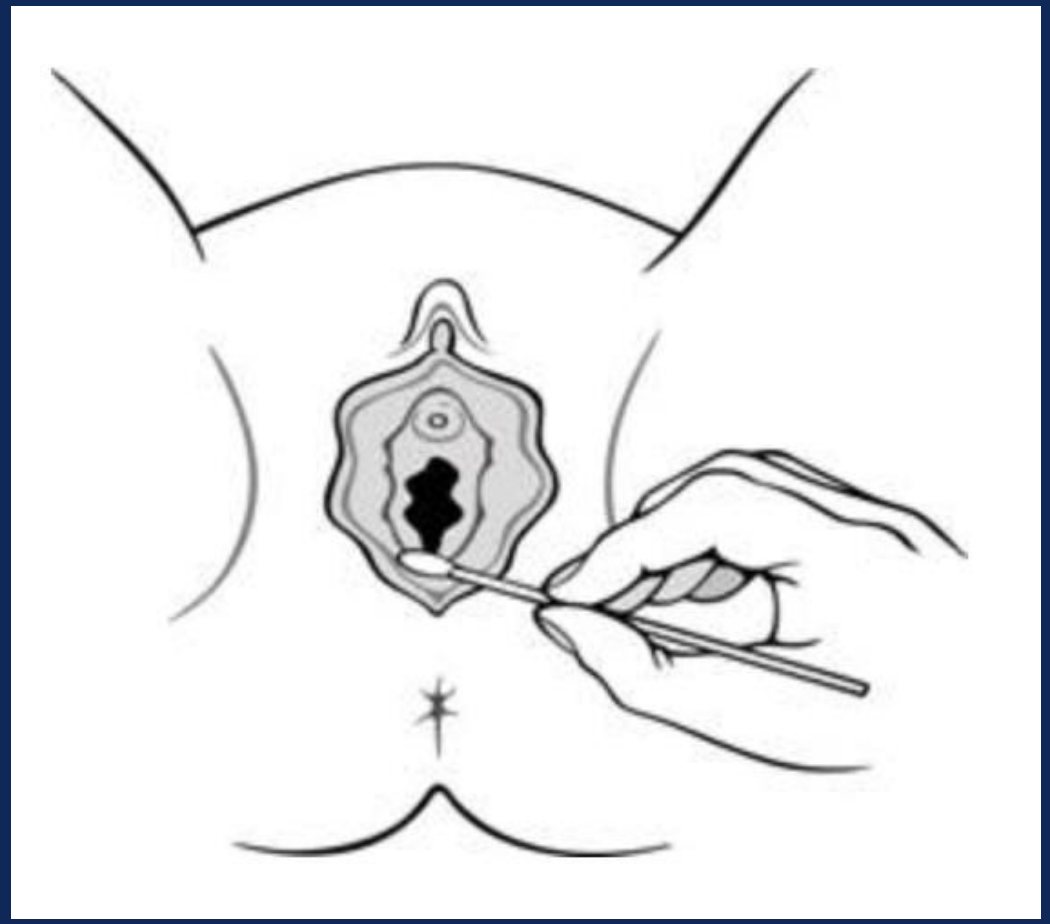
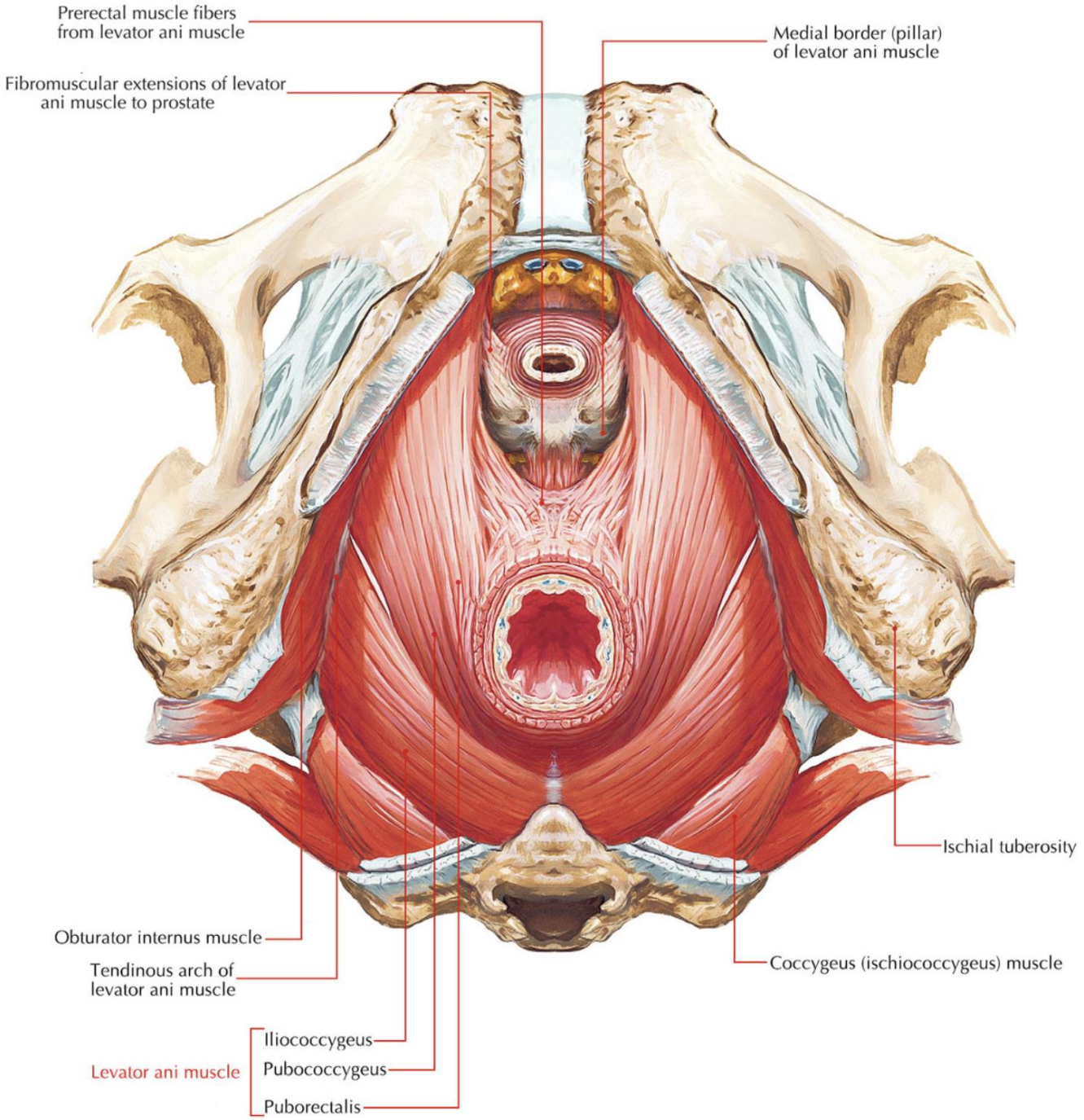
EVALUATION



- Physical exam: visual inspection, cotton-swab test, pelvic floor assessment


Prerectal muscle fibers from levator ani muscle
Medial border (pillar) of levator ani muscle
Fibromuscular extensions of levator ani muscle to prostate
Ischial tuberosity
Obturator internus muscle
Tendinous arch of levator ani muscle
Coccygeus (ischiococcygeus) muscle
Levator ani muscle
Iliococcygeus
Pubococcygeus
Puborectalis

Sexual desire or interest is a feeling tl
experience, feeling receptive to a part
fantasizing about having sex.

1. Over the past 4 weeks, how **often**

- ☐ Almost always or always
- ☐ Most times (more than h
- ☐ Sometimes (about half t
- ☐ A few times (less than h
- ☐ Almost never or never

2. Over the past 4 weeks, how would or interest?

- ☐ Very high
- ☐ High
- ☐ Moderate
- ☐ Low
- ☐ Very low or none at all

FSFI

Sexual arousal is a feeling that includes both pl
excitement. It may include feelings of warmth o
(wetness), or muscle contractions.

3. Over the past 4 weeks, how **often** did you f
during sexual activity or intercourse?

- ☐ No sexual activity
- ☐ Almost always or always
- ☐ Most times (more than half the tin
- ☐ Sometimes (about half the time)
- ☐ A few times (less than half the tim
- ☐ Almost never or never

4. Over the past 4 weeks, how would you rate on") during sexual activity or intercourse?

- ☐ No sexual activity
- ☐ Very high
- ☐ High
- ☐ Moderate
- ☐ Low
- ☐ Very low or none at all

5. Over the past 4 weeks, how **confident** were aroused during sexual activity or intercourse

- ☐ No sexual activity
- ☐ Very high confidence
- ☐ High confidence
- ☐ Moderate confidence
- ☐ Low confidence
- ☐ Very low or no confidence

6. Over the past 4 weeks, how **often** have you (excitement) during sexual activity or interco

- ☐ No sexual activity
- ☐ Almost always or always
- ☐ Most times (more than half the tin
- ☐ Sometimes (about half the time)
- ☐ A few times (less than half the tim
- ☐ Almost never or never

7. Over the past 4 weeks, how **often** did you become lubricated ("wet") during sexual activity or intercourse?

- ☐ No sexual activity
- ☐ Almost always or always
- ☐ Most times (more than half the time)
- ☐ Sometimes (about half the time)
- ☐ A few times (less than half the time)
- ☐ Almost never or never

8. Over the past 4 weeks, how **difficult** was it to become lubricated ("wet") during sexual activity or intercourse?

- ☐ No sexual activity
- ☐ Extremely difficult or impossible
- ☐ Very difficult
- ☐ Difficult
- ☐ Slightly difficult
- ☐ Not difficult

9. Over the past 4 weeks, how often did you **maintain** your lubrication ("wetness") until completion of sexual activity or intercourse?

- ☐ No sexual activity
- ☐ Almost always or always
- ☐ Most times (more than half the time)
- ☐ Sometimes (about half the time)
- ☐ A few times (less than half the time)
- ☐ Almost never or never

10. Over the past 4 weeks, how **difficult** was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse?

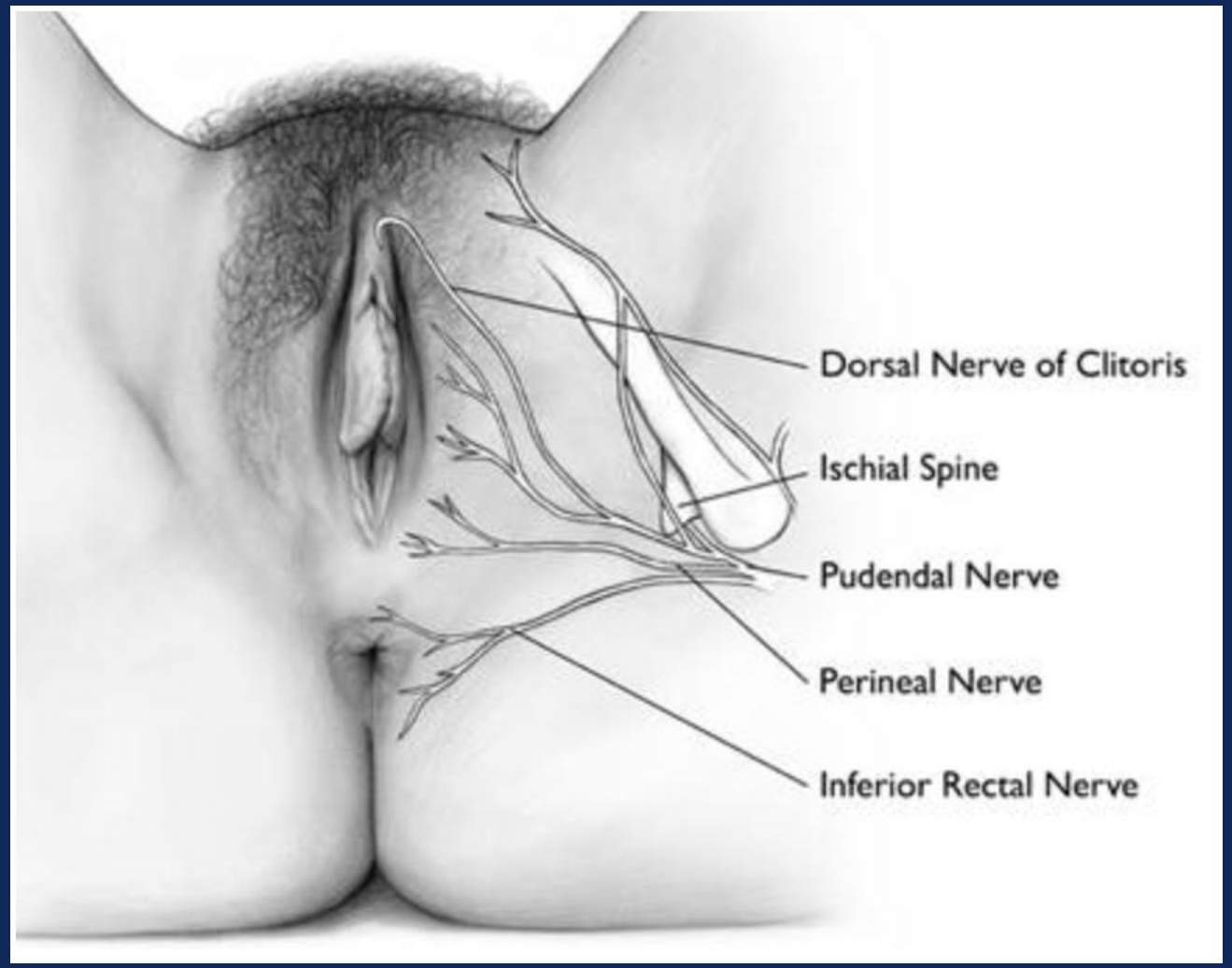
- ☐ No sexual activity
- ☐ Extremely difficult or impossible
- ☐ Very difficult
- ☐ Difficult
- ☐ Slightly difficult
- ☐ Not difficult

WHY IS THIS HAPPENING!

- Peripheral nerve sensitization
- Central sensitization
- Hormonal influence
- Pelvic floor dysfunction
- Psychosocial contributors

Image from Lovevery

ANATOMY



Haefner et al

NOCIPLASTIC PAIN/ CENTRAL SENSITIZATION

Pain due to altered pain perc
central nervous system, ass
loss of descending pain inhib
amplification of ascending pa
and generalized sensory sen

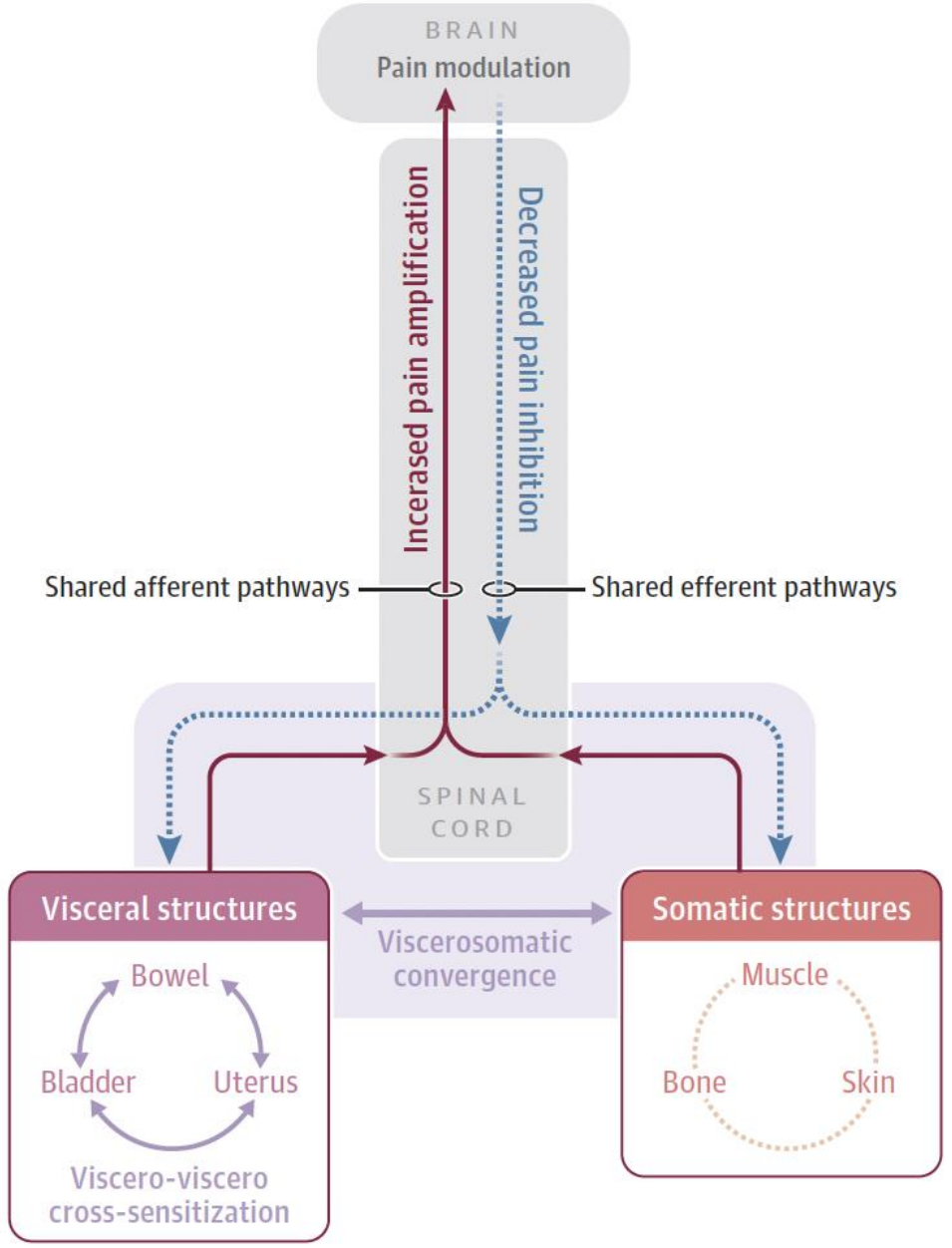
Hallmark symptoms include
pain, fatigue, and non-restor

Hypothalamic-pituita
axis dysfunction
&
Heightened peripher
immunoreactivity

NOCICEPTIVE PAIN

Pain due to activation of p
nociceptors, via local pelv
inflammation & neuroang
(e.g endometriosis)

Figure 1. Viscero-Viscero Cross-Sensitization and Viscerosomatic Convergence Pathways



pression/anxiety
eep disturbance

sical, emotional
uma and stress

o-
nen
nsitizes
stem

As-Sanie et al

NOW WHAT?!

Image from Lovevery

TREATMENT OPTIONS

- Multimodal and individualized
- Education and validation
- Behavioral modifications
- Pelvic floor physical therapy
- Pharmacologic therapy
- Procedural or surgical options

EDUCATION & BEHAVIORAL

Encourage CBT, mindfulness, and supportive therapy

Validate symptoms, explain pain physiology

Avoid irritants and friction

Vulvar Care Measures That Can Minimize Vulvar Irritation

The following vulvar care measures can minimize vulvar irritation:

- Wear 100% cotton underwear (no underwear at night)
- Avoid vulvar irritants (perfumes, dyes, shampoos, detergents) and douching
- Use mild soaps for bathing, without applying it to the vulva
- Clean the vulva with water only
- Avoid the use of hair dryers on the vulvar area
- Pat the area dry after bathing, and applying a preservative-free emollient (such as vegetable oil or plain petrolatum) topically to hold moisture in the skin and improve the barrier function
- Switch to 100% cotton menstrual pads (if regular pads are irritating)
- Use adequate lubrication for intercourse
- Apply cool gel packs to the vulvar area
- Rinse and pat the vulva dry after urination

PHYSICAL THERAPY

- Pelvic floor PT and biofeedback are first-line

- Address muscle hypertonicity and pain mapping

PHYSICAL THERAPY

Low risk and effective

Utilize

- Trigger point release
- Myofascial release
- Mobilization
- Stretching/relaxation
- Biofeedback
- Electrostim therapy
- Dry needling
- Strengthening/stabilization

Goal: At least 8-12 sessions

PHARMACOLOGICAL TREATMENT

TOPICALS

Lidocaine ointment 5%

- After 7 weeks: 76% were able to have penetrative intercourse compared to 36% at baseline

Lidocaine 2.5%- Prilocaine 2.5% (EMLA)

Amitriptyline 2% - Baclofen 2%

Estrogen

Haefner et al

TOPICALS

Plain petrolatum

Capsaicin

Topical nitroglycerin

Not helpful:

- Corticosteroids
- Testosterone
- Antifungals

Haefner et al

ORAL MEDICATIONS

- Tricyclic anti-depressants
  - Amitriptyline, nortriptyline, desipramine
  - Other uses
- Anti-depressants:
  - Fluoxetine
  - Venlafaxine (37.5mg daily> 75mg daily)
- Anticonvulsants
  - Gabapentin: 100mg vs 300mg daily dosing

GABAPENTIN for CHRONIC PAIN

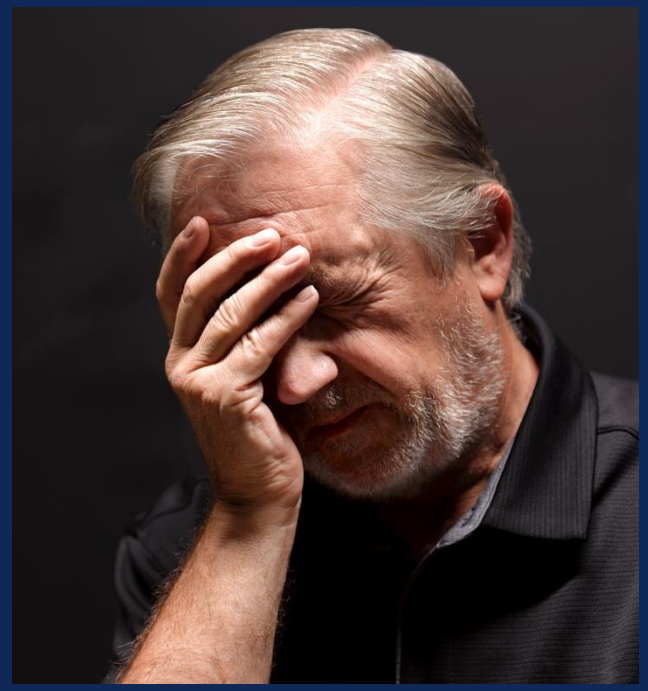
SCHEDULE	MORNING DOSE	AFTERNOON DOSE	EVENING DOSE	(PRESCRIPTION)
Days 1-3	(none)	(none)	300 mg	300 mg tabs, #100
Days 4-7	300 mg	(none)	300 mg	
Days 8-10	300 mg	300 mg	300 mg	
Days 11-14	300 mg	300 mg	600 mg	
Week 3	600 mg	300 mg	600 mg	
Week 4	600 mg	600 mg	600 mg	
Week 5	600 mg	600 mg	900 mg	300 mg tabs, # 210
Week 6	900 mg	600 mg	900 mg	
Week 7	900 mg	900 mg	900 mg	
Week 8	900 mg	900 mg	1200 mg	
Week 9	1200 mg	900 mg	1200 mg	300 mg tabs, # 315
Week 10	1200 mg	1200 mg	1200 mg	

SHOW ME THE DATA!

- Amitriptyline: RCT did not show that low doses (10-20mg) was helpful for reducing pain
- Study with 241 patients with generalized, unprovoked vulvodynia
  - Medication: TCA, gabapentin and pregabalin
  - **60% with long lasting relief (24m)**
  - **10% temporary relief**
  - ~30% discontinuation due to side effects

van Beekhuizen et al

ORAL MEDICATIONS



Carbamazepine

- 100mg nightly, add 100mg every 3 days (max 1200mg daily)
- Elevated LFTs, hyponatremia

Topiramate

- 25mg daily > BID > 50mg BID > 75mg BID
- Glaucoma, anemia, order BMP

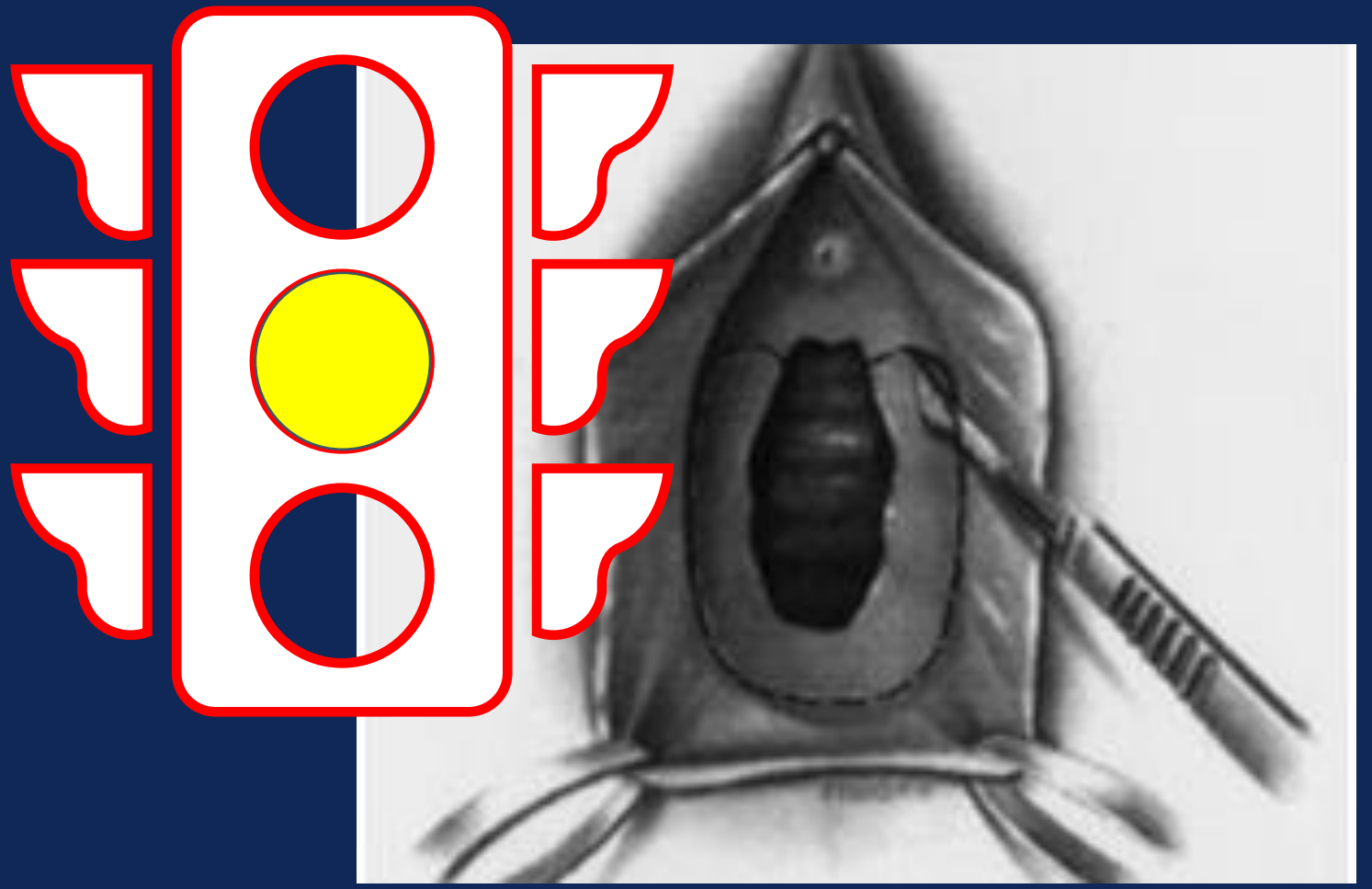
PROCEDURES

- Local vulvodynia: Trigger point injections
  - 0.1% triamcinolone acetonide and 0.25% bupivacaine (larger area) vs 0.5% (smaller area)
  - Injected monthly
- Pudendal nerve block?
  - Not enough data to say

Segal et al.
McDonald et al

SURGERY!

- Local excision
- Total vestibulectomy
- Perineoplasty



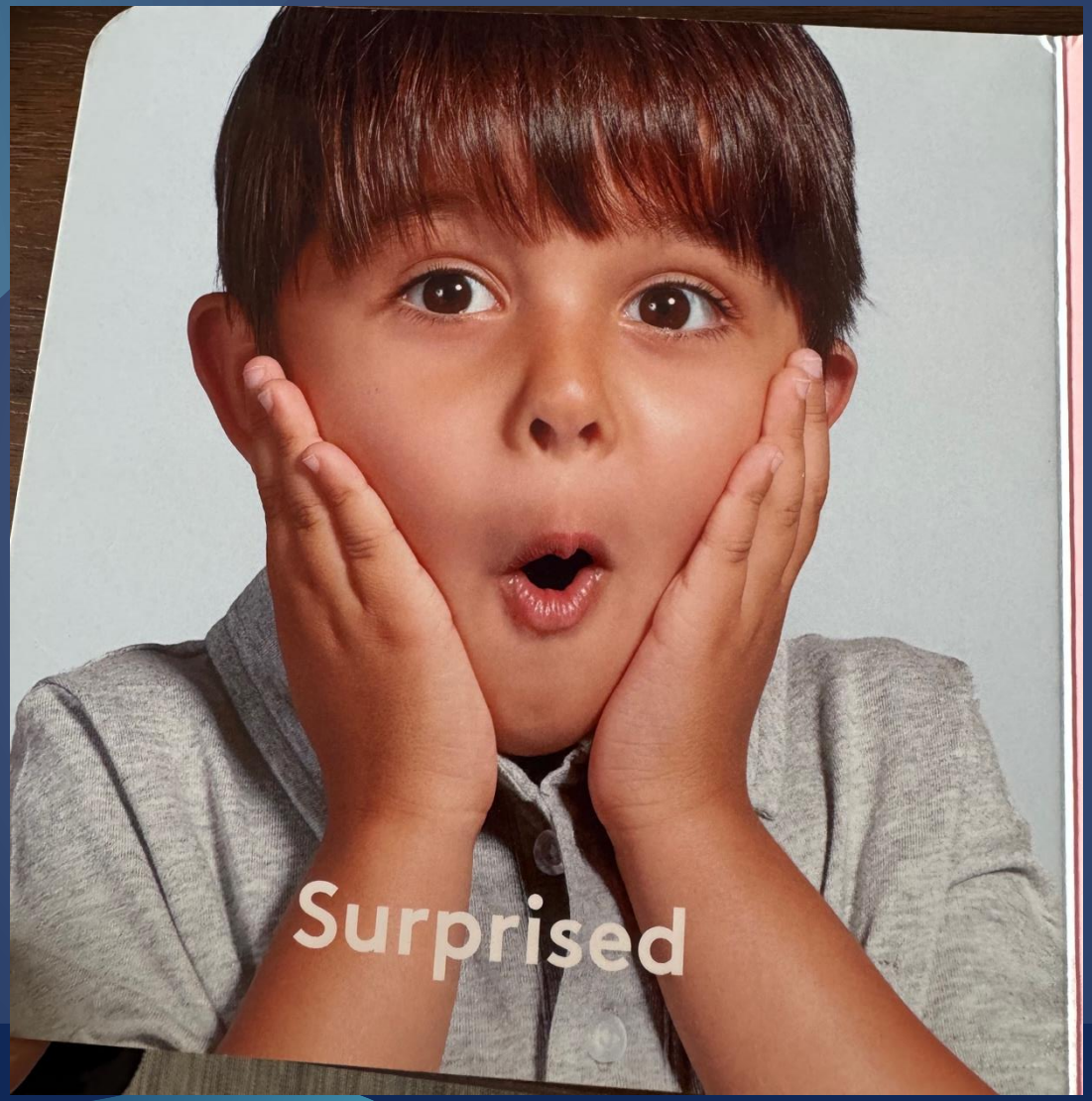


Image from Lovevery

BOTOX

Original Research

ajog.org

GYNECOLOGY

Electromyography-guided botulinum toxin injections in provoked vestibulodynia: a randomized double-blind placebo-controlled clinical trial

Fabien Pelletier, MD, PhD; Irène Gallais Sérézal, MD, PhD; Marc Puyraveau, MSc; Franck Leroux; Delphine Verollet, MD; François Aubin, MD, PhD; Gérard Amarenco, MD, PhD; Bernard Parratte, MD, PhD

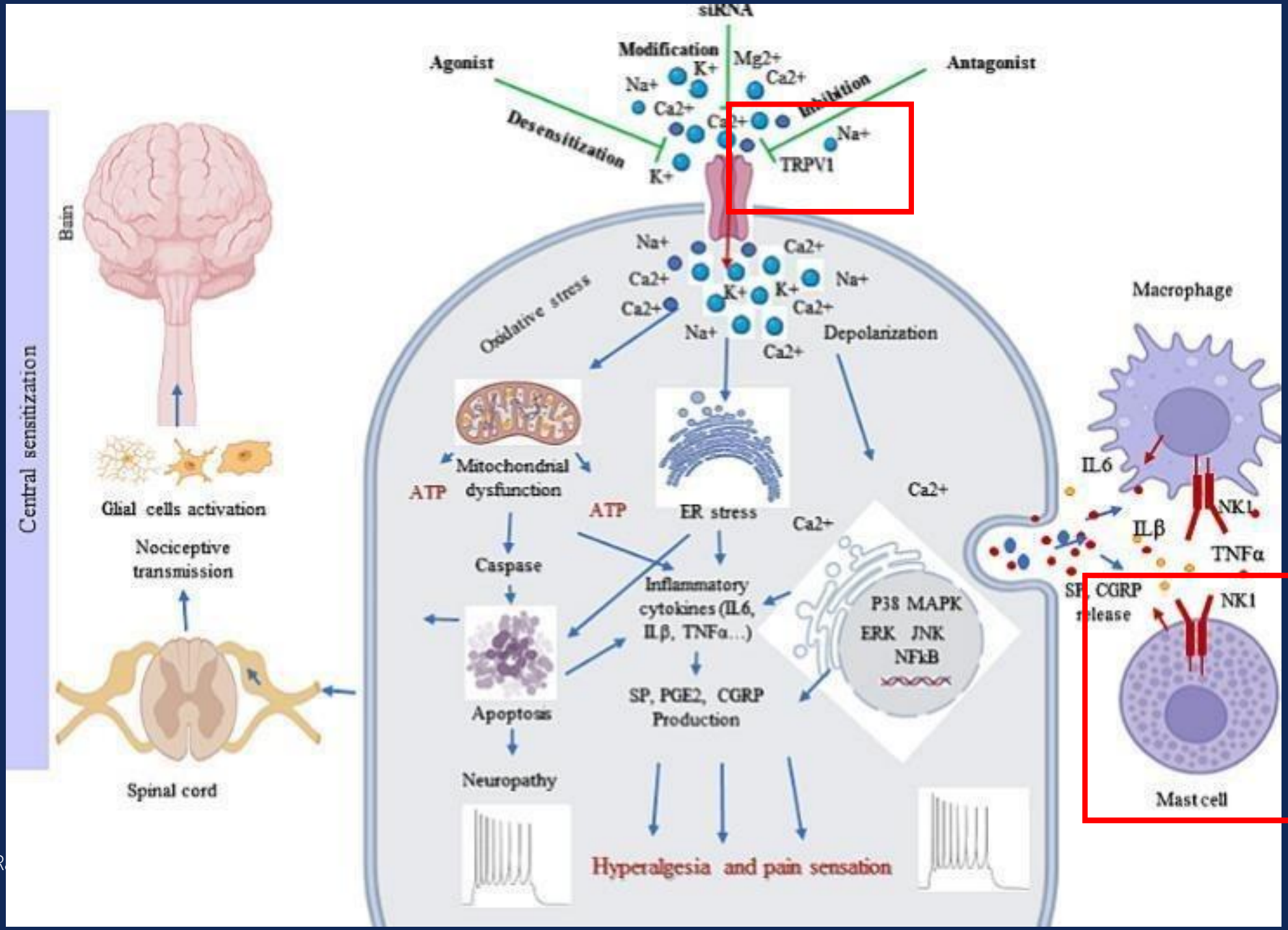

siRNA
Agonist
Modification
Antagonist
Desensitization
Inhibition
TRPV1
Na+
K+
Ca2+
Mg2+
Central sensitization
Brain
Glial cells activation
Nociceptive transmission
Spinal cord
Oxidative stress
Depolarization
Mitochondrial dysfunction
ATP
ER stress
Caspase
Apoptosis
Neuropathy
Inflammatory cytokines (IL6, IL β, TNFα...)
SP, PGE2, CGRP Production
P38 MAPK
ERK JNK
NFkB
Hyperalgesia and pain sensation
Macrophage
IL6
IL β
TNFα
NK1
SP, CGRP release
Mast cell

Image from R

Patient Tutorial

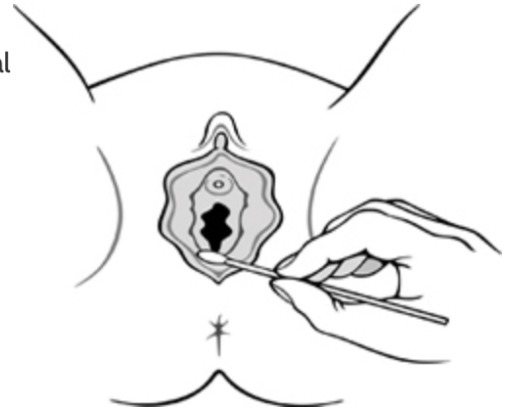
- Introduction
- Introduction to Vulvovaginal Health
  - Gynecological Anatomy
  - Normal and Abnormal Vulvovaginal Symptoms
  - Vulvar Self-Examination
- The Basics of Pain
  - How We Feel Pain
  - How to Use a Pain Diary
- Understanding Vulvodynia
  - Definition and Types of Vulvodynia
  - What Causes Vulvodynia?
  - Diagnosis and Co-Existing Conditions
  - Vulvodynia Treatments
  - Self-Help Strategies
- Coping With Chronic Pain

Diagnosis

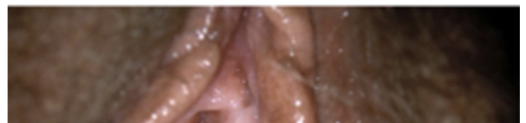
Diagnosis

Since vulvodynia is both a pain condition and affects the vulva, health care professionals from multiple disciplines may be involved in its treatment at different points in time. A gynecologist, urogynecologist or other provider knowledgeable about vulvodynia should perform your first examination to rule out conditions that mimic the symptoms of vulvodynia. Then, based on your symptoms, you may be referred to other specialists for continued care.

After taking a thorough medical history and asking questions about your symptoms, your provider should carefully examine the vulva, vagina and vaginal secretions to rule out an active infection or skin disorder. Routine cultures for yeast and bacterial infections should be performed. Your provider may also recommend that you have blood drawn to assess levels of estrogen, progesterone and testosterone. He/she will likely perform a cotton-swab test (pictured on the right). During the test, gentle pressure is applied to various vulvar sites and you're asked to rate the severity of the pain. If any areas of skin appear suspicious, your provider may examine them with a magnifying instrument or take a biopsy of the area.



Upon examination, the vulvar tissue may either appear red and swollen, or perfectly normal. By comparing the vestibular tissue (marked by a yellow arrow in the photos to the right), you can see that the vestibule on the top is

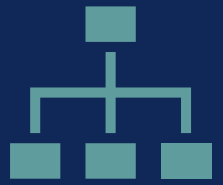


SUMMARY

- •Complex, yet treatable
- • Accurate diagnosis and validation are key
- • Multidisciplinary approach yields best outcomes
- • Continue advancing research and awareness

Image from Lovevery

LEARNING OBJECTIVES



- Can define vulvodynia and its subtypes

- Reviewed symptom presentation and outline diagnostic approach

- Discussed evidence-based treatment strategies and highlight emerging research directions

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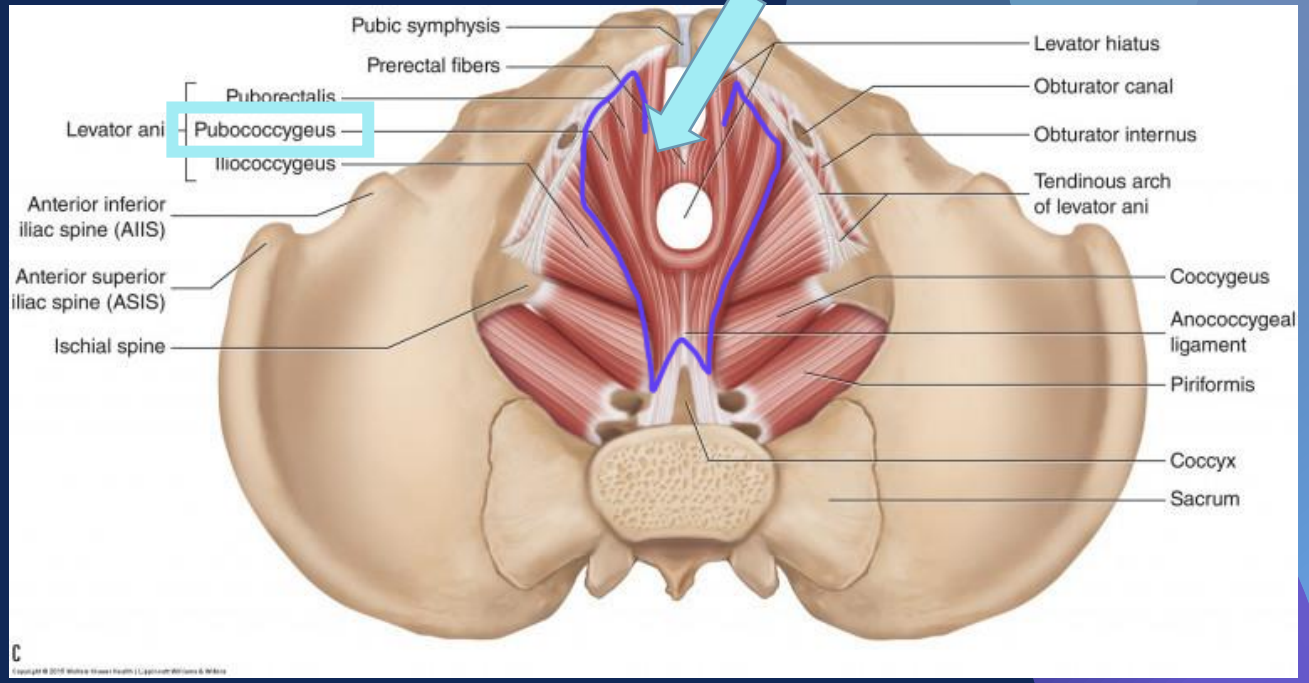
THANK YOU

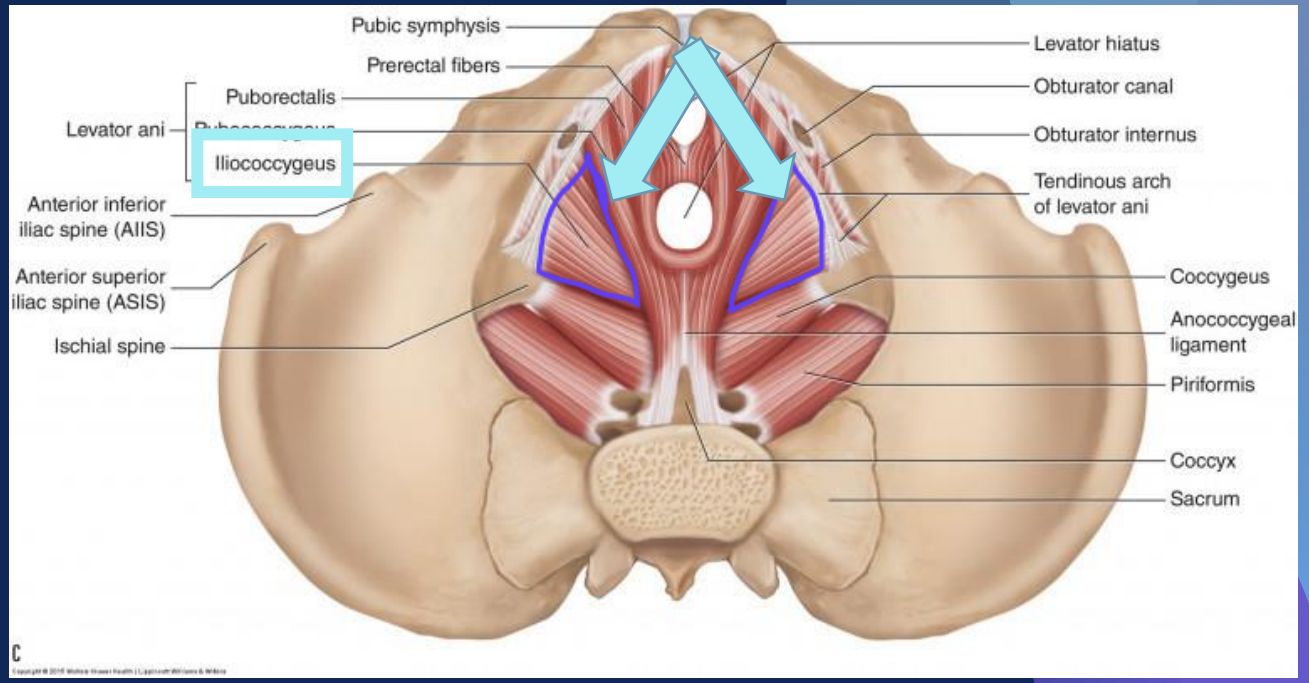
HOW TO EXAM THE PELVIC FLOOR

- Pubococcygeus
  - First muscle, posterior
  - 1st finger joint in



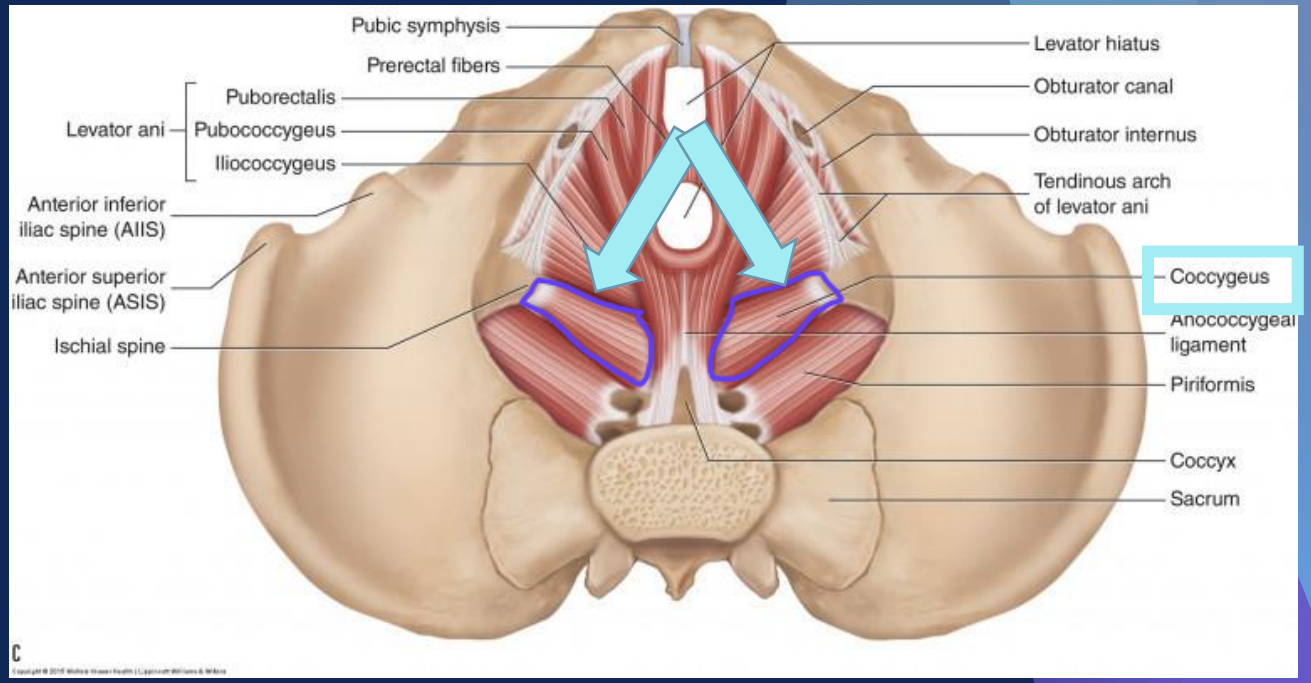
HOW TO EXAM THE PELVIC FLOOR

- Iliococcygeus
  - Second muscle, posterior
  - 2nd finger joint in



HOW TO EXAM THE PELVIC FLOOR

- Coccygeus
  - Third muscle, posterior
  - Finger all the way in, thinner muscle
  - (sacrospinous ligament underlies it)- can slide medial and posterior from ischial spine



HOW TO EXAM THE PELVIC FLOOR

- Obturator Internus
  - 1st finger joint, anteriorly
  - Have the patient abduct the lower extremity against resistance. You will feel a bulge if you are in the right place.