

# Unraveling the Mysteries of Pelvic Pain

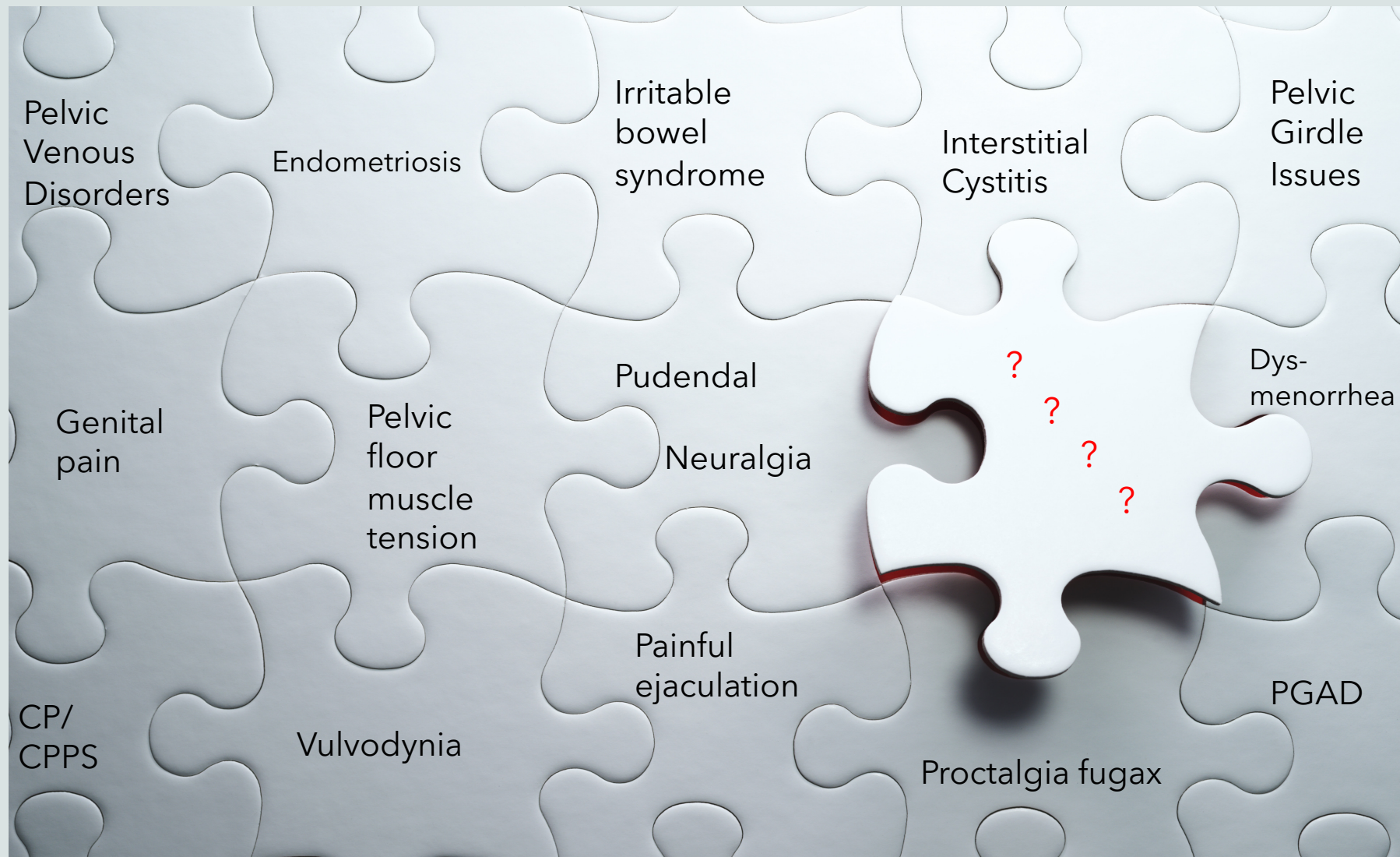
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Nel E. Gerig, MD

*The Pelvic Solutions Center*



# Pelvic Pain






# Unravel

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verb: *to separate and  
clarify the elements of  
something baffling*




# Pelvic pain: 3 common issues

- Interstitial cystitis
- Muscle tension
- Pudendal neuralgia

# Pelvic pain: other contributors

- Endometriosis
- Vulvar dermatoses
- Hip/back/SI joint/LE issues or injuries
  - Anxiety, depression, TRAUMA
  - Maigne's syndrome
  - OTHER

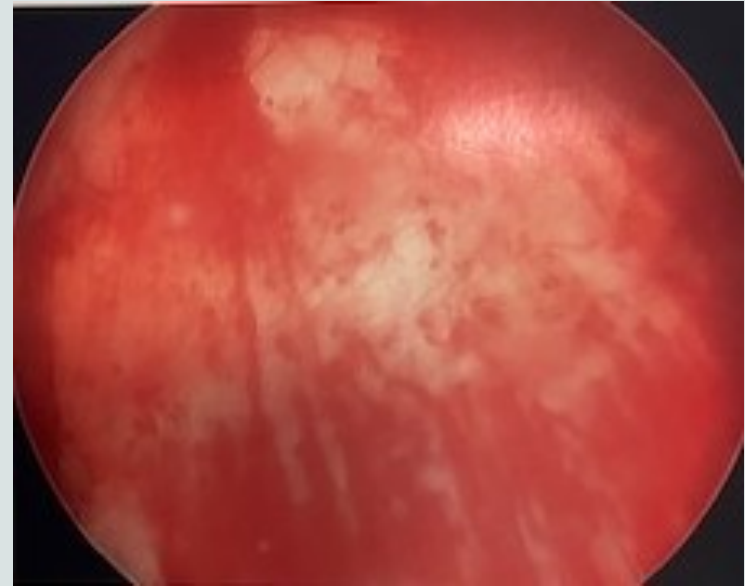
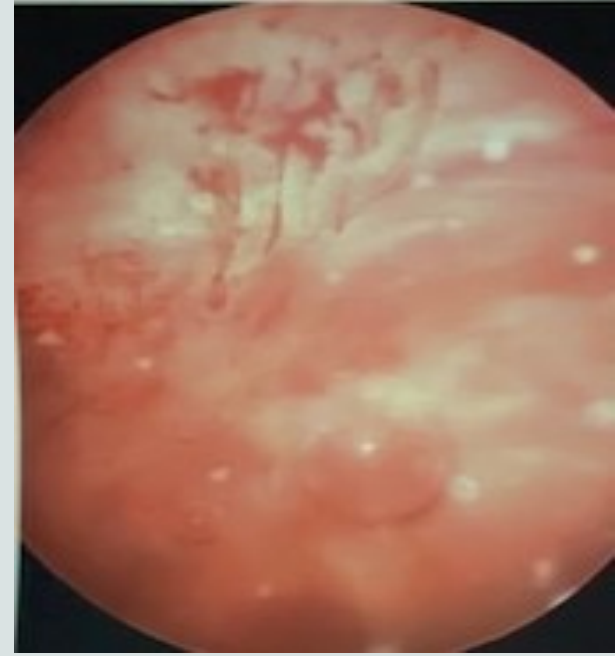
The background of the slide is a solid light gray. On the left side, there is a decorative arrangement of stylized leaves. These leaves are rendered in a light gray color with white outlines and internal vein patterns. They vary in shape, including simple oval leaves and more complex, multi-lobed or pinnate leaves. The leaves are scattered across the left half of the slide, creating a naturalistic yet minimalist aesthetic.

# Interstitial Cystitis

# Interstitial Cystitis /Bladder Pain Syndrome

= allodynia of the bladder

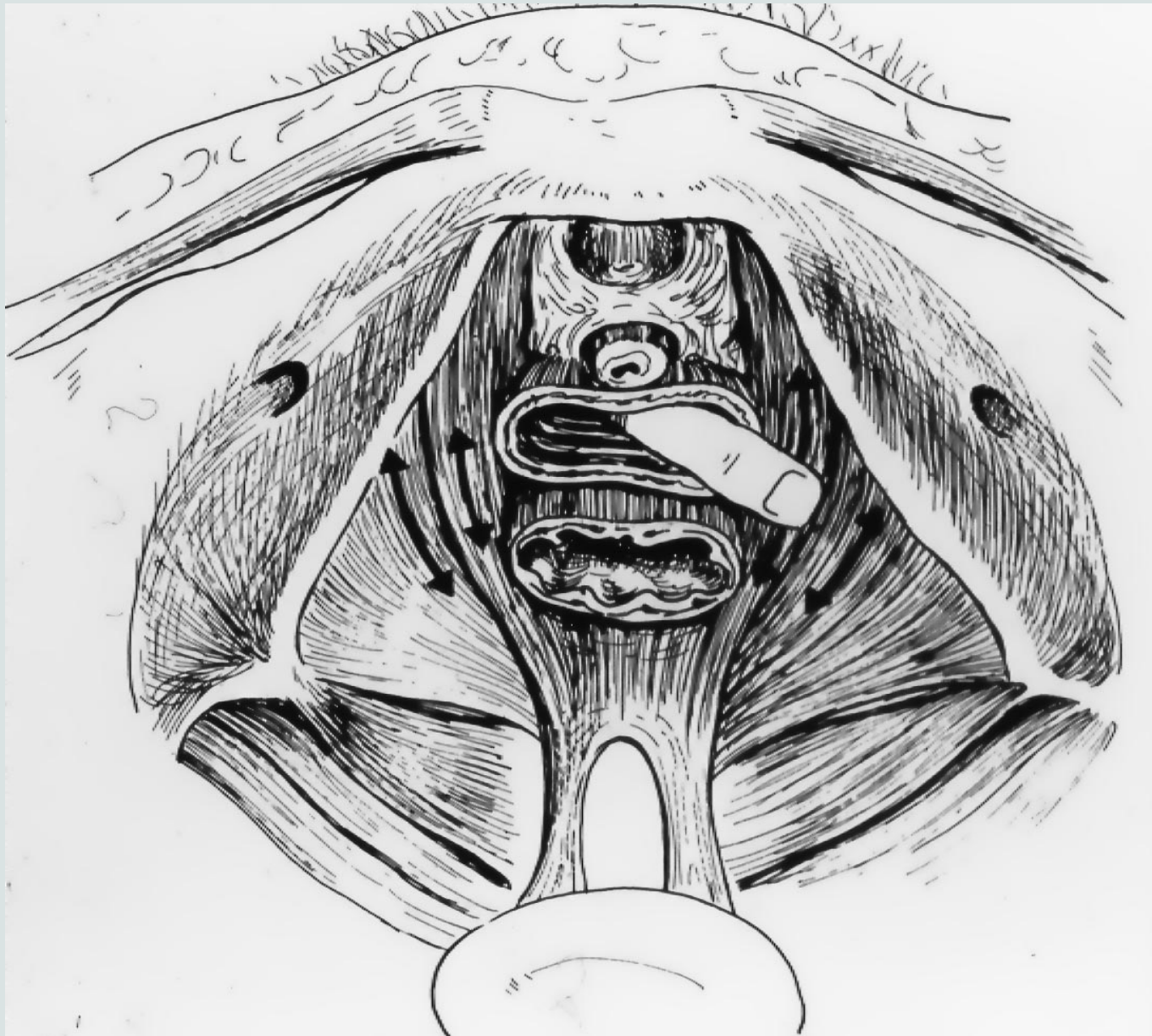
- Frequency
- Urgency
- Bladder discomfort, pressure, pain with bladder filling  
usually short-lived relief with voiding
- Absence of other etiologies (tumor, stone)





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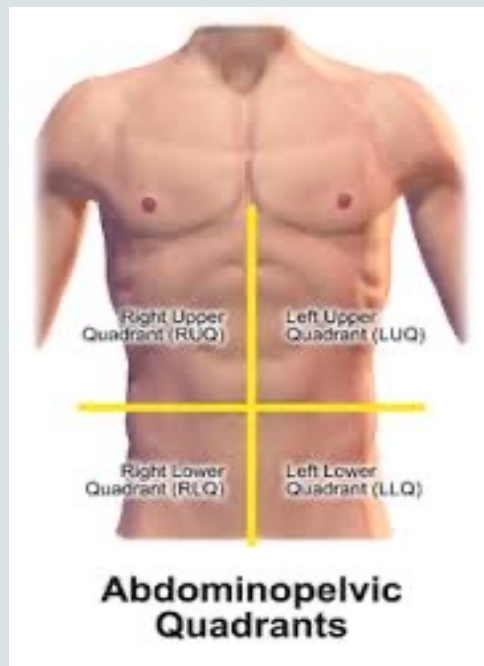
# Muscle tension



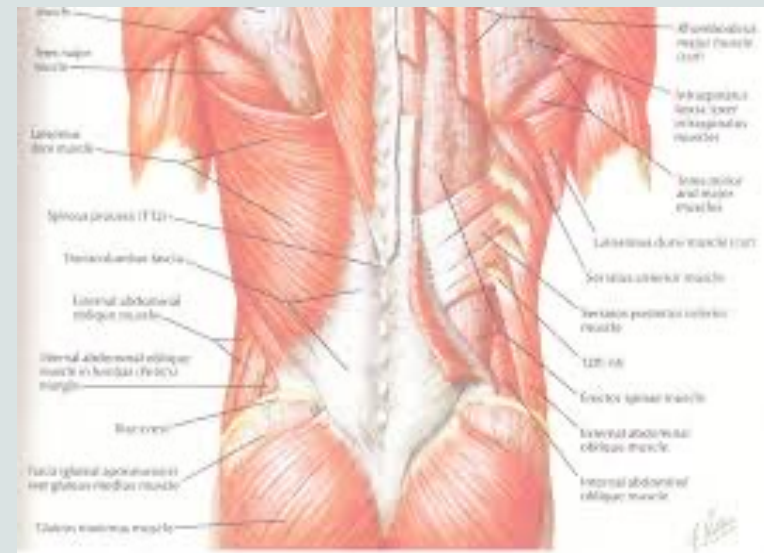
Pelvic  
examination  
for  
pain  
(as  
demonstrated  
for  
female  
patient)

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Solutions Center

Rectus abdominus  
Obliques, TA  
Quadratus lumborum



Paraspinous mm  
Gluteal mm  
Adductors



# Back/Pelvic floor/Abdominal muscle tension

## Consequence of:

- Any pelvic inflammation or chronic stimulation/pain
- Instability/hypermobility
- Referred pain from organs, joints, muscles, nerves, skin
- Guarding/bracing/“holding stress” in muscles (clenching)
- h/o trauma

# Back/Pelvic floor/Abdominal muscle tension

- Consequence of:
- Postural compensation (for injury, weakness, arthritis, etc.)
- Repetitive minor trauma/straining
- Injury – childbirth, surgical, athletic, traumatic
- CAN originate from remote minor injury which has resolved

# Why the pelvis?

- The unconscious (the dog)
- “Medical PTSD”
- Clenching
- Unique relationship of supportive muscles with organs, skin, nerves

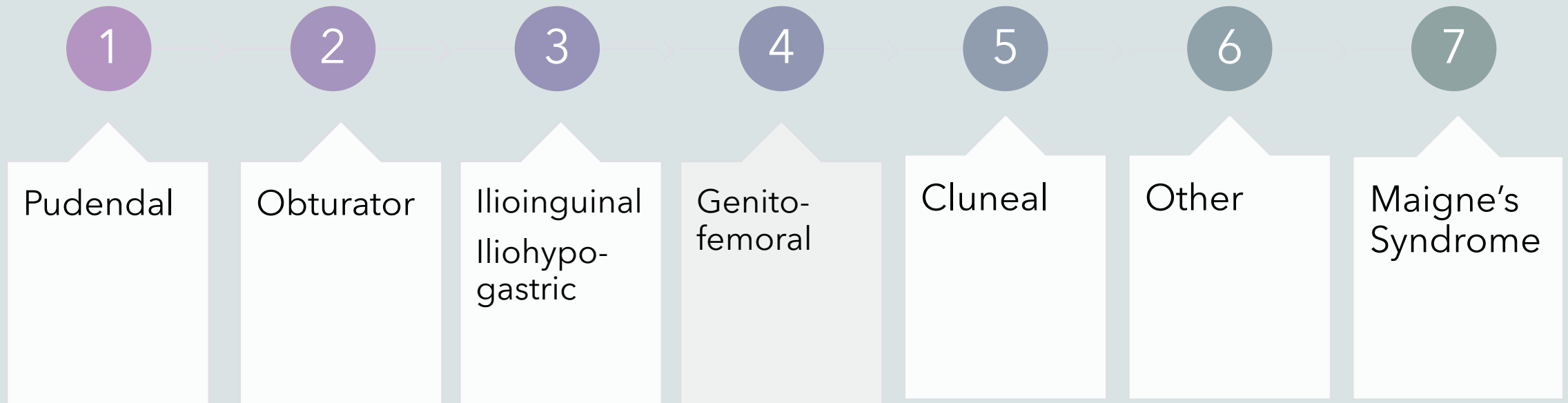


# Neuralgias

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## and neurological upregulation

# Neuralgias which contribute to pelvic pain



# The pudendal nerve

- Mixed sensory, motor, and autonomic functions
- Fibers from S2-4 nerve roots
- Travels anterior to piriformis
- Courses between sacrotuberous and sacrospinous ligaments
- Through Alcock's canal
- 3 branches: dorsal n., perineal n., inf. rectal n.

Soon-Sutton, et al 2022

# What is pudendal neuralgia?

- Bowel, bladder, sexual, or autonomic dysfunction
- Burning, stabbing, throbbing pain
- Distribution of pudendal nerve or its branches

3 branches:

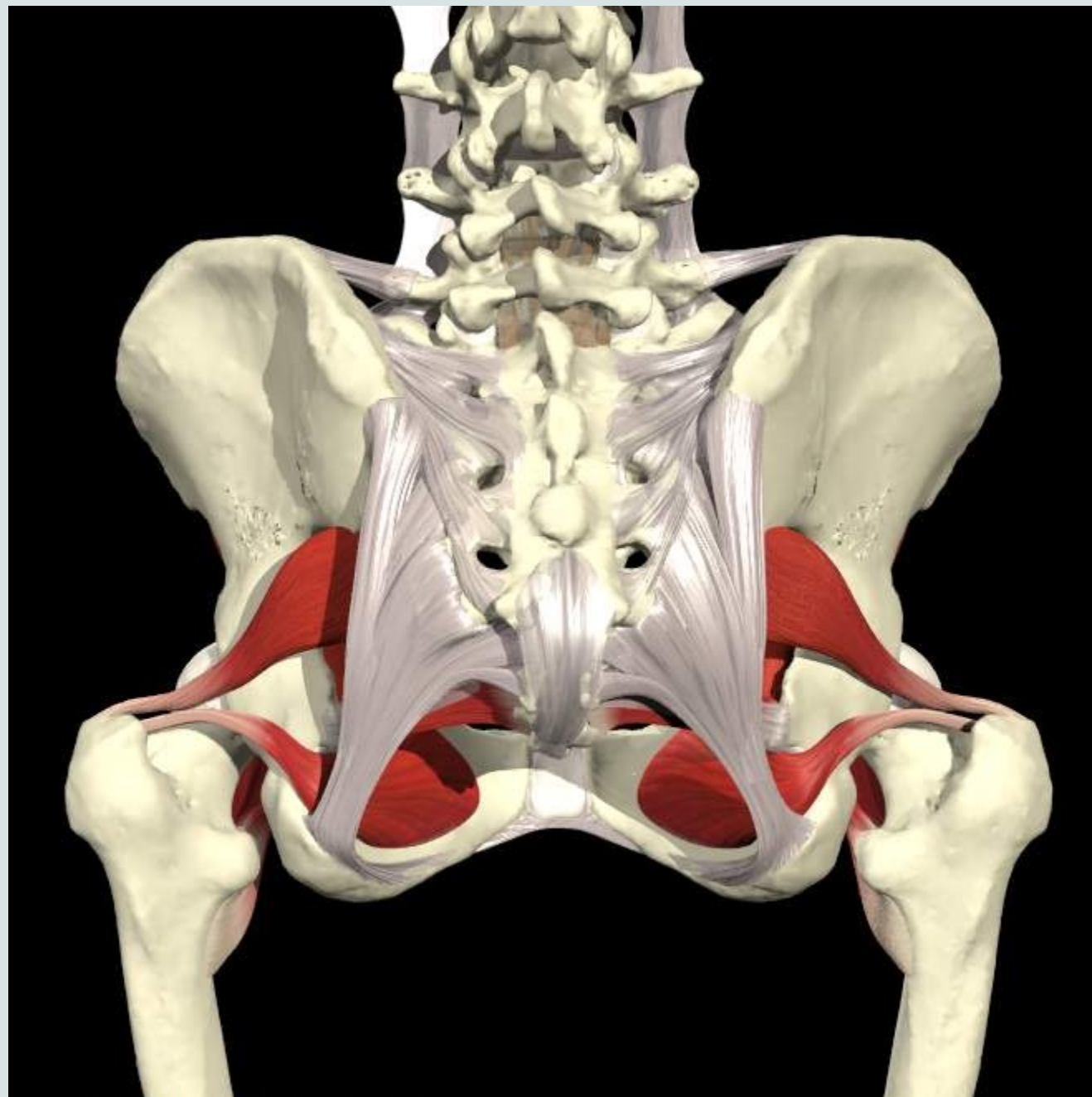
penile/clitoral, perineal, rectal

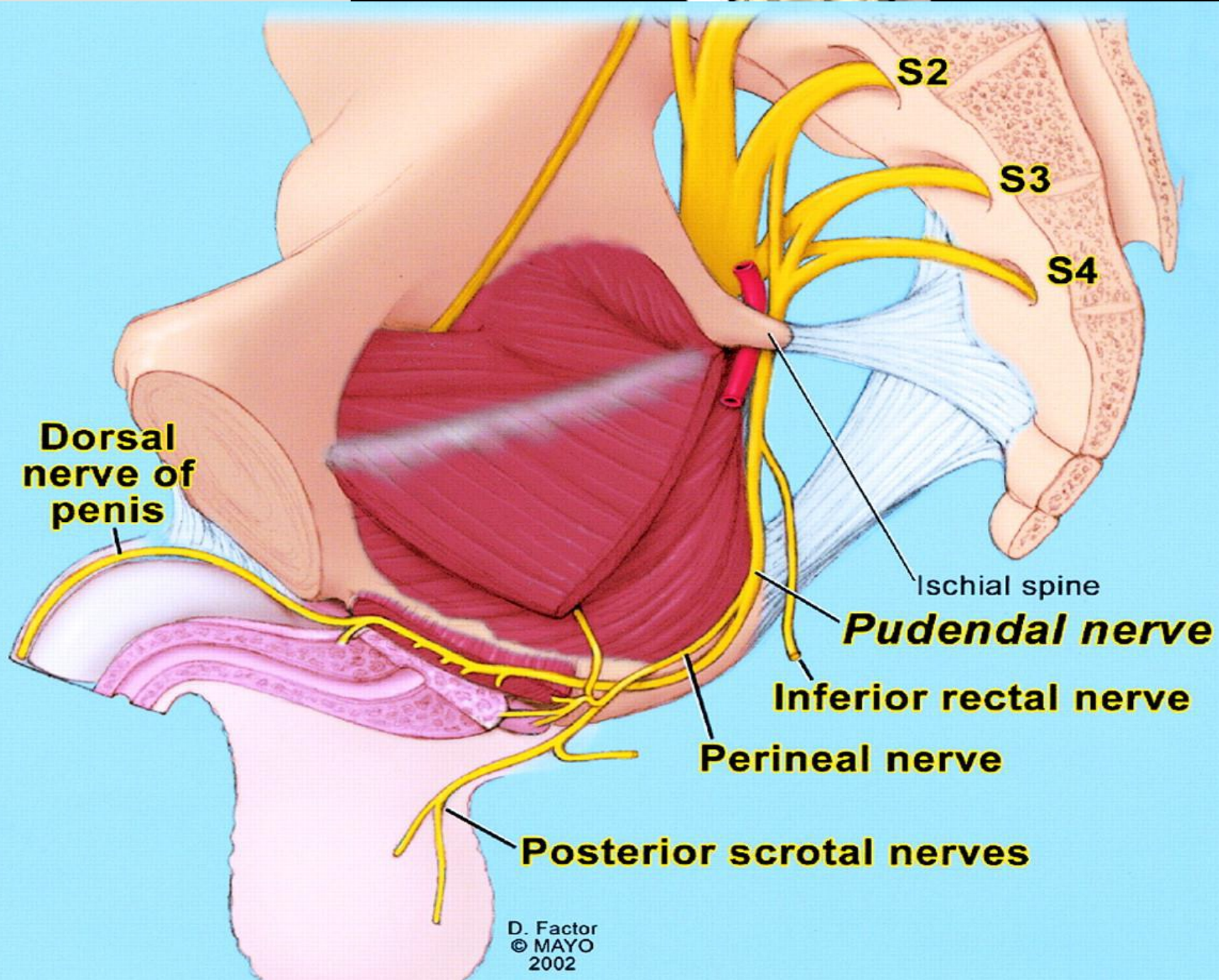
- Usually worse with sitting

Labat, et al *Neurourology and Urodynamics* 2007.

(Nantes Criteria)







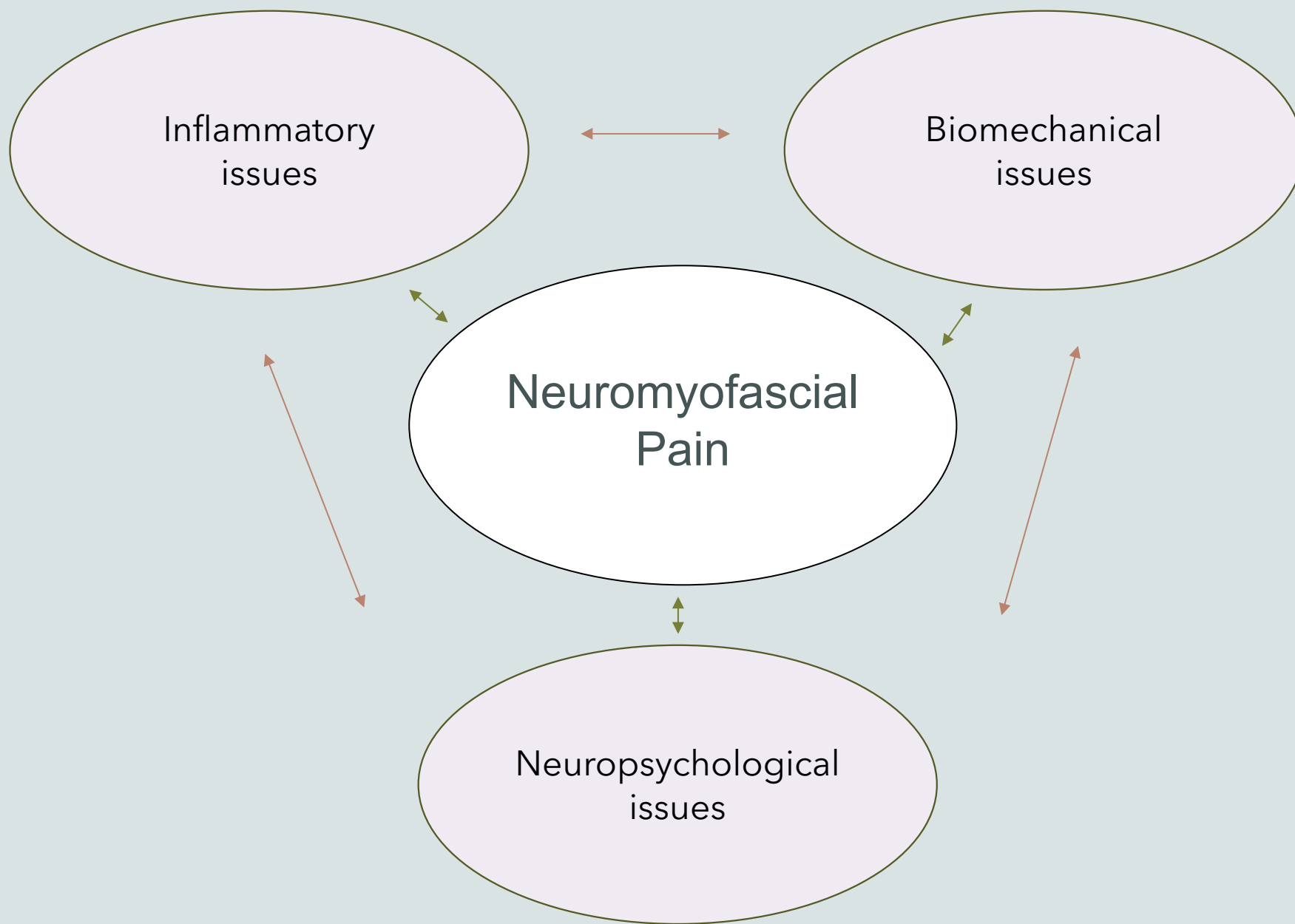
# Symptoms of pudendal neuralgia

- Burning, stinging, pinching, tingling, shock-like sensations
  - Hyperesthesia, Hypoesthesia, Itch
  - Pain worsens throughout the day
  - Foreign body sensation (rectum, perineum, vagina)
  - Pain with urination, defecation, orgasm, ejaculation, arousal
  - Sexual dysfunction
  - Urethral pain/pressure/discomfort/irritation
  - Constant urge to urinate
- “CONSTANCY”

# Etiology of pudendal neuralgia

- Prolonged sitting, repetitive hip flexion
- Congenital (n. travels through sacrotuberous ligament)
- Muscle tension, obturator internus hypertrophy/spasm
- Pelvic malalignment
- Bony remodeling of pelvis (repetitive use of PFM)
- Trauma, Radiation
- Hip pathology
- Tarlov cysts (?), Other mass lesions





A  
conceptual  
model of  
Pelvic Pain

# Pelvic Pain

Inflammatory  
issues

IC  
Endometriosis  
IBD  
Rec. infections  
Radiation

Biomechanical  
issues

Hypermobility/EDS  
Malalignment  
Hip pathology  
Back/pelvic girdle/LE  
issue  
Pelvic venous disorder

**Neuromyofascial  
Pain**

Neuro-  
psychological  
issues

Anxiety, Depression  
Sensitization,  
Centralization  
H/O trauma  
Learned pain behaviors  
CNS/periph. n. injury

# Pelvic Pain

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How to find  
the puzzle  
pieces . . .



- Start with patient history

*How did this begin?*

*Everyone is a poor historian!*

- Add pelvic pain review of systems



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# The Pelvic Pain Rapid Review of Systems

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Do you have . . .

- Pain with sitting?

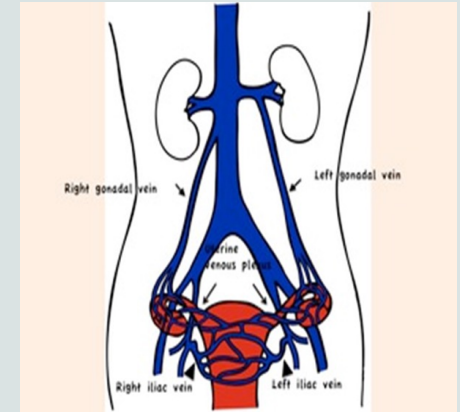
penis, clitoris, urethra, vulva, vagina, perineum, rectum

Looking for: pudendal neuralgia

Other: hamstring tendinopathy

Do you have . . .

- Pain with prolonged standing?



Heaviness, pressure, “bowling ball” low  
abdomen/pelvis

Looking for – pelvic venous disorder

... Any bladder/urinary symptoms/issues?

- Frequency (? Constancy)
- Urgency
- Pain (before, during, or after urination)
- Hematuria
- Urethral symptoms



# I have “BURNING”!

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? Constant

? Location

? Related to urination

? Related to other



## Bladder symptoms – looking for:

- Interstitial cystitis –  
pain with bladder filling, hematuria
- Pelvic floor tension myalgia  
pain AFTER urination  
sense of incomplete emptying
- Pudendal neuralgia – constancy, dysuria

# GYN history - any gyn issues, surgeries, painful periods?

- Dysmenorrhea –
  - Primary ? If so, think endometriosis, possibly pelvic venous d/o
  - Secondary? Can develop pelvic venous d/o p pregnancy
- Pregnancy: ? Prolonged labor, difficult delivery
  - Injury to nerves, muscles, pelvic girdle
- Surgeries (reason for hyst, etc.)
- OCP use (can cause provoked vestibulodynia)

# GI/Bowel history – any bowel symptoms/issues?

- Bleeding or pain with BMs? (anal fissure)
- Chronic constipation → microtears in pelvic floor muscles → trigger points
- Chronic diarrhea → PFM clenching
- If self-dx. of IBS, what are symptoms?



Sexual issues – any pain with sexual activity or do your symptoms flare up thereafter?

- Dyspareunia – at opening, deeper? Lifelong?

Causes: provoked vestibulodynia, PFM tension, vaginismus, pudendal neuralgia, other

- Pain with ejaculation, erection, stimulation, or orgasm(suggests pudendal neuralgia)

# Any back issues?

- H/O scoliosis, back injury, operation?
- Any back pain now? Location, treatments tried, ? Need for re-evaluation
- WHY? Back affects pelvic structure, function, compensation (iliopsoas, obt. internus, gluts, other. Another pain generator, so is patient getting adequate care, advice?

# Coccyx – ever break your tailbone?



- Ever break your tailbone?
- ALL levators attach to coccyx, so injury often leads to muscle strain with possible contribution to trigger points

# Hips – any hip pain, clicking, or popping?

- Looking for: instability, inflammation, pain

→ tension/spasm of obturator internus

which → pressure on pudendal nerve

Note: many pts. with hip pathology present with symptoms of pudendal neuralgia







# HIP

## Is it the “driver”?

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If so, treatment of muscle tension and neuralgia will FAIL without stabilizing the hip.

AND, pt. will need rx. of those issues AFTER hip rx.

# Amy lower extremities issues/injuries? foot, knee, ankle



- Chronic guarding/postural compensation due to pain changes forces on pelvic musculature and may result in muscle tension and nerve compression.
- Can affect iliopsoas, gluts, pelvic floor, other

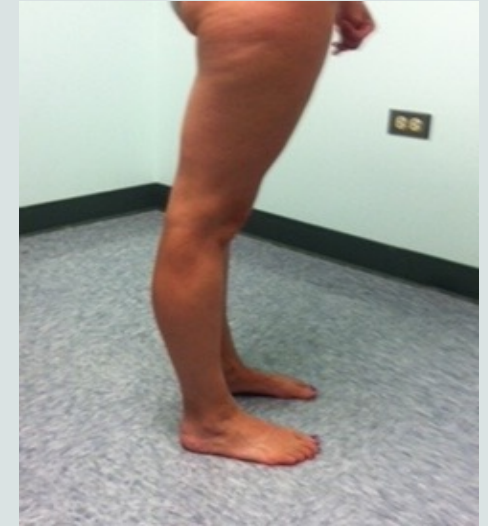
# History of sports participation

- Childhood
- Adulthood
- Injuries? Asymmetrical sport?
- Degree of current exercise, limitations
- Why? Helps you understand potential contributing factors to patient's pelvic pain.
- Does pt. need to more MORE? LESS?



# Hypermobility - Are you double-jointed or extra-flexible?

- Joint hypermobility is a descriptor
- TEST Beighton score – assessment of joint hypermobility due to tendon laxity in heritable connective tissue disorders
- Muscular compensation for joint instability may → pain



Malek, et al. The Beighton Score as a measure of generalised joint hypermobility. Rheumatology International (2021) 41:1707-1716

# Sleep - How is your sleep?

- Pain and insomnia – vicious cycle
- ? Need for evaluation/treatment
- May be sign of anxiety

Finan and Smith, “The comorbidity of insomnia, chronic pain, and depression: Dopamine as a putative mechanism”.  
[Sleep Medicine Reviews Volume 17, Issue 3](#), June 2013, Pages 173-183

# Mood - How would you describe your mood in general?

- Do you tend to anxiety or depression?
- Anxiety contributes to muscle tension, pain
- Pain and depression – each exacerbates other
- ? Need for treatment

# Clenching behaviors

- Do you clench your jaw or grind your teeth?
- Do you clench your shoulder muscles?



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Trauma hx - Any major traumatic or very stressful events in your life or childhood?

- May need to give examples (child abuse, parents with substance abuse or psychiatric illness, deaths, accidents, active military duty, etc.)

OR ask “Would you want your daughter/son to have the childhood you had?”

- Early life trauma → more likely to have ANY pain condition
- Childhood trauma → visceral hypersensitivity

Felitti, ACE Study Am J Preventive Med 1998

Greenwood & Johnson Stress-Induced Chronic Visceral Pain of GI Origin Front. Syst. Neurosci. Nov. 2017; 11:86

# History of trauma

- May be a significant contributor to pain
- Assess need for treatment or updated rx.

# Exacerbating and Relieving factors

- What makes your pain worse?

Pain exacerbated by position or movement is likely musculoskeletal or neuromuscular in origin.

Diet (IC)

Stress (muscle tension)

Other

# Exacerbating and Relieving Factors

- What makes your feel better?

Heat (muscle tension, other)

Ice (neuropathic pain, other)

Other



Pain with sitting

Pain with prolonged standing

Bladder

Gyn

Bowels

Sexual issues

Back

Hips/Coccyx

Lower extremities

Hypermobility

Sports participation

Sleep

Mood

Clenching behaviors

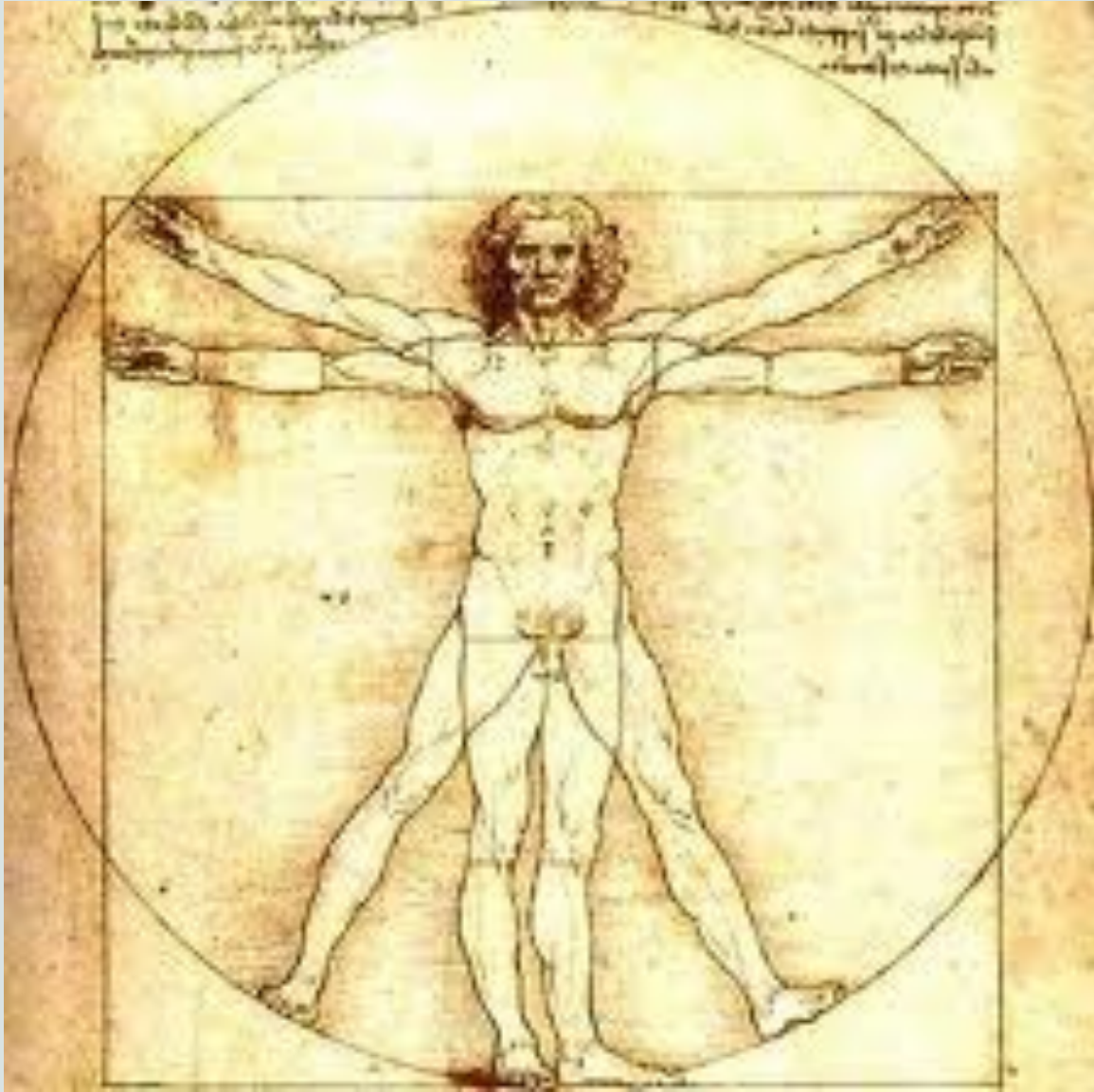
Trauma history

Exacerbating/relieving factors

# Why go through the Pelvic Pain ROS?

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It helps YOU and YOUR  
PATIENT understand how this  
developed, and therefore WHY  
treating each contributing factor  
is critical to healing.



Pelvic Pain

Put

It

All

Together!

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# Thank you

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