

The Ins and Outs of Pelvic Floor Dysfunction

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Pelvic Floor Dysfunction

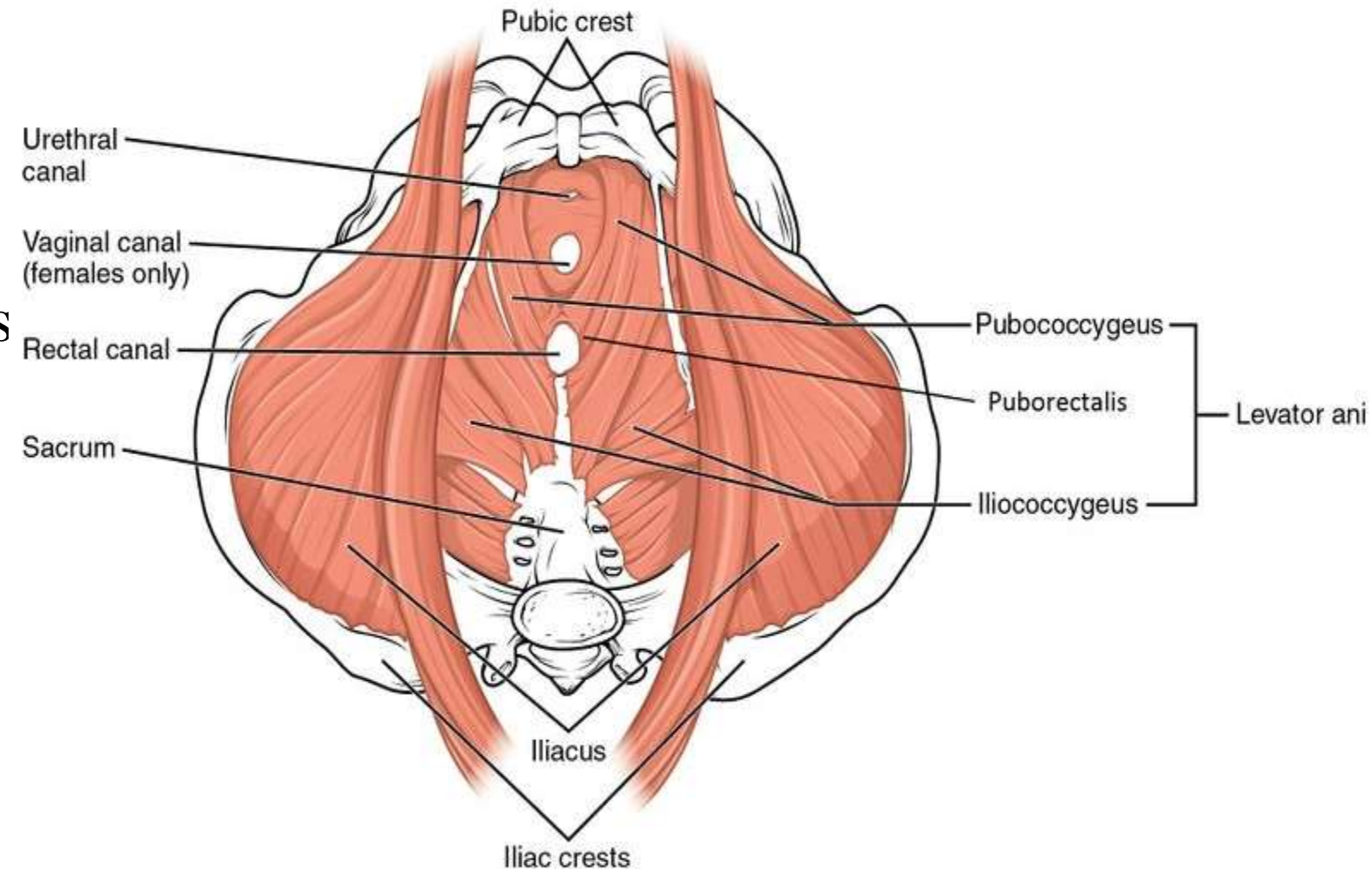
Objectives:

- Define pelvic floor dysfunction and common associated pathologies
- Describe an appropriate work-up for pelvic floor dysfunction based on clinical presentation and patient complaint
- Summarize the role of interdisciplinary healthcare team members in management of pelvic floor dysfunction

Pelvic Floor Dysfunction

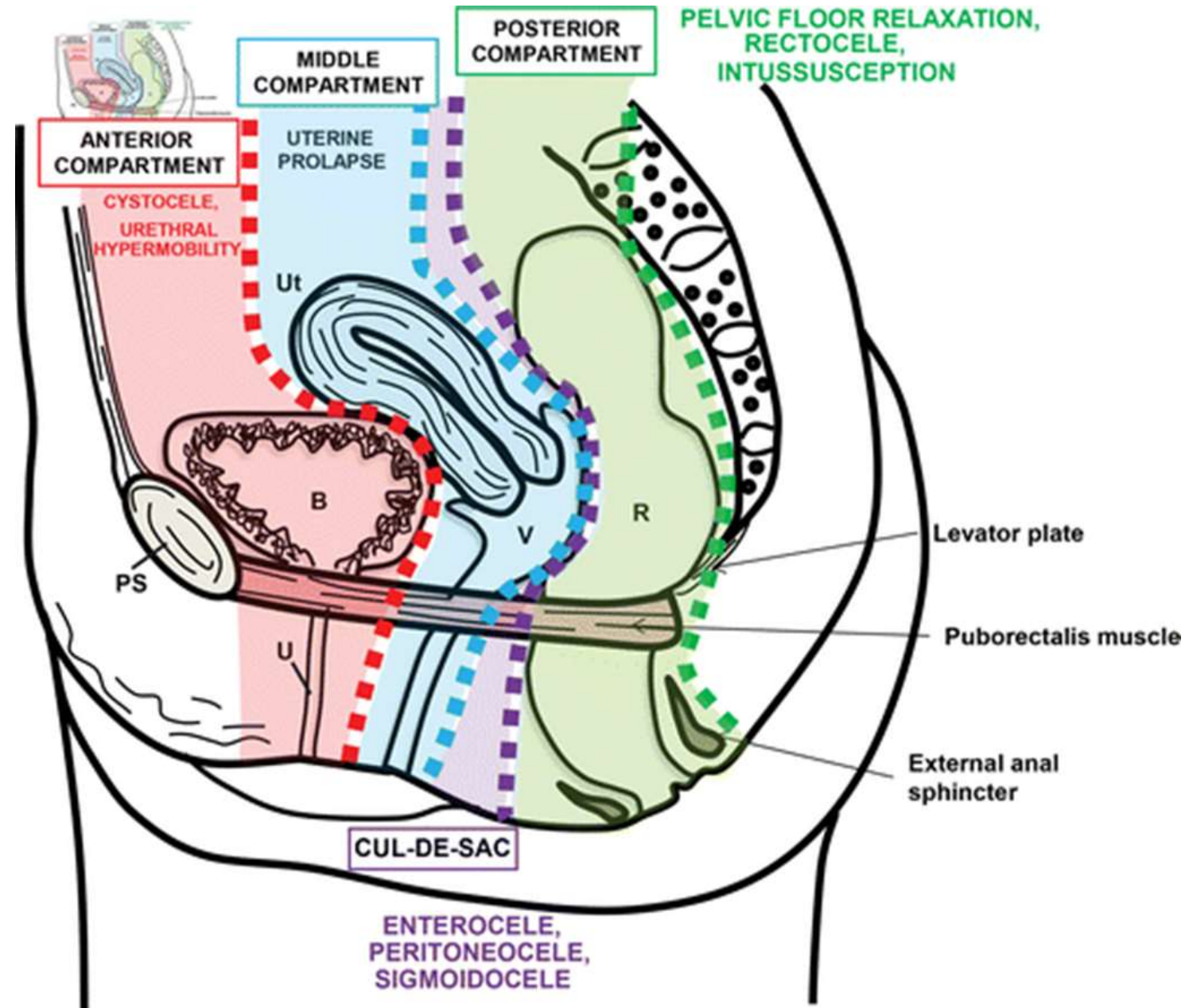
Anatomy and Physiology of the Pelvic Floor

- Puborectalis
- Pubococcygeus
- Iliococcygeus supports pelvic organs
- Pudendal nerve innervation
- Closely associated with abdominal musculature
- Three functions
 1. Support/stability of the pelvic organs
 2. Contribute to continence
 3. Contribute to sexual function



Pelvic Floor Dysfunction

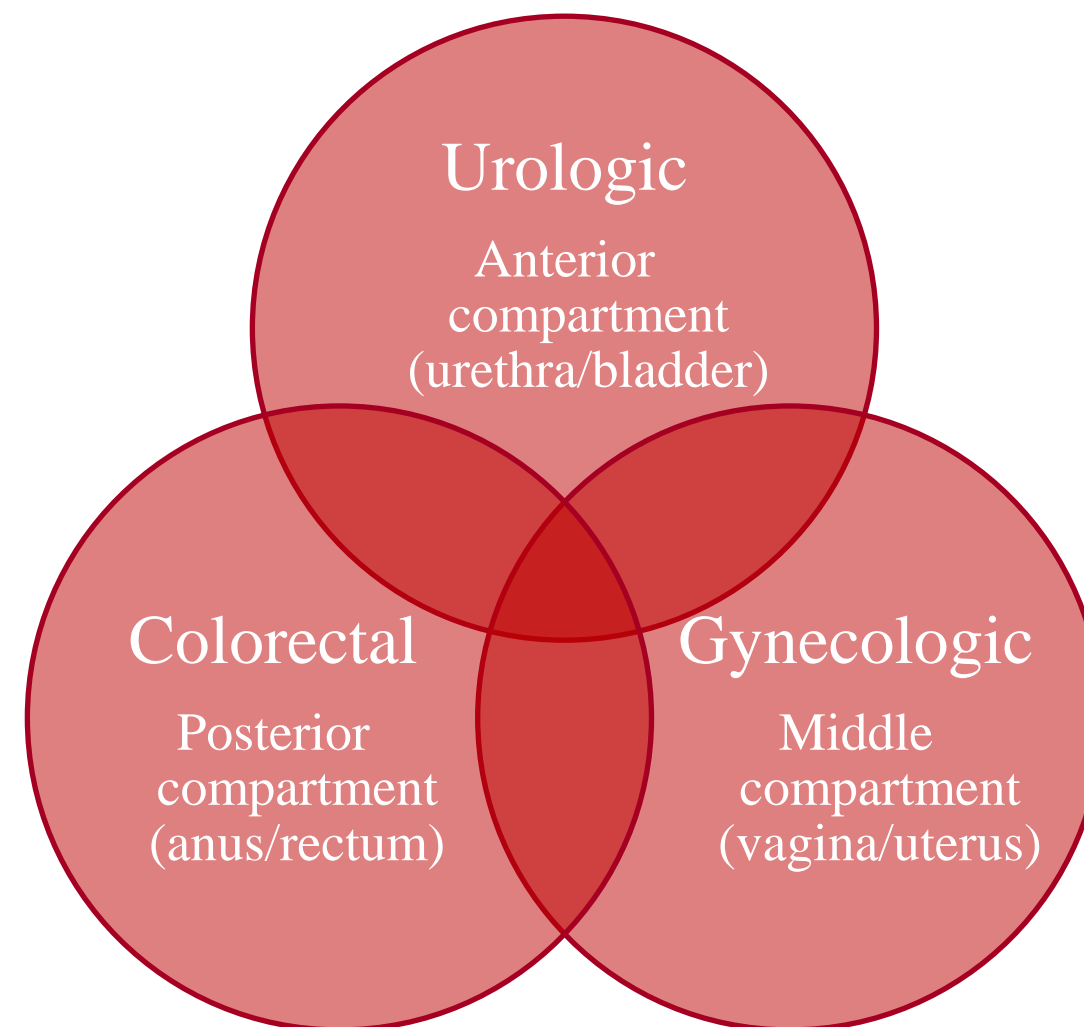
Compartments of the Pelvic Floor



Pelvic Floor Dysfunction

Definition of pelvic floor dysfunction (PFD): abnormal function of the pelvic floor musculature

- Hypertonicity
- Hypotonicity
- Inappropriate coordination
- Mixed



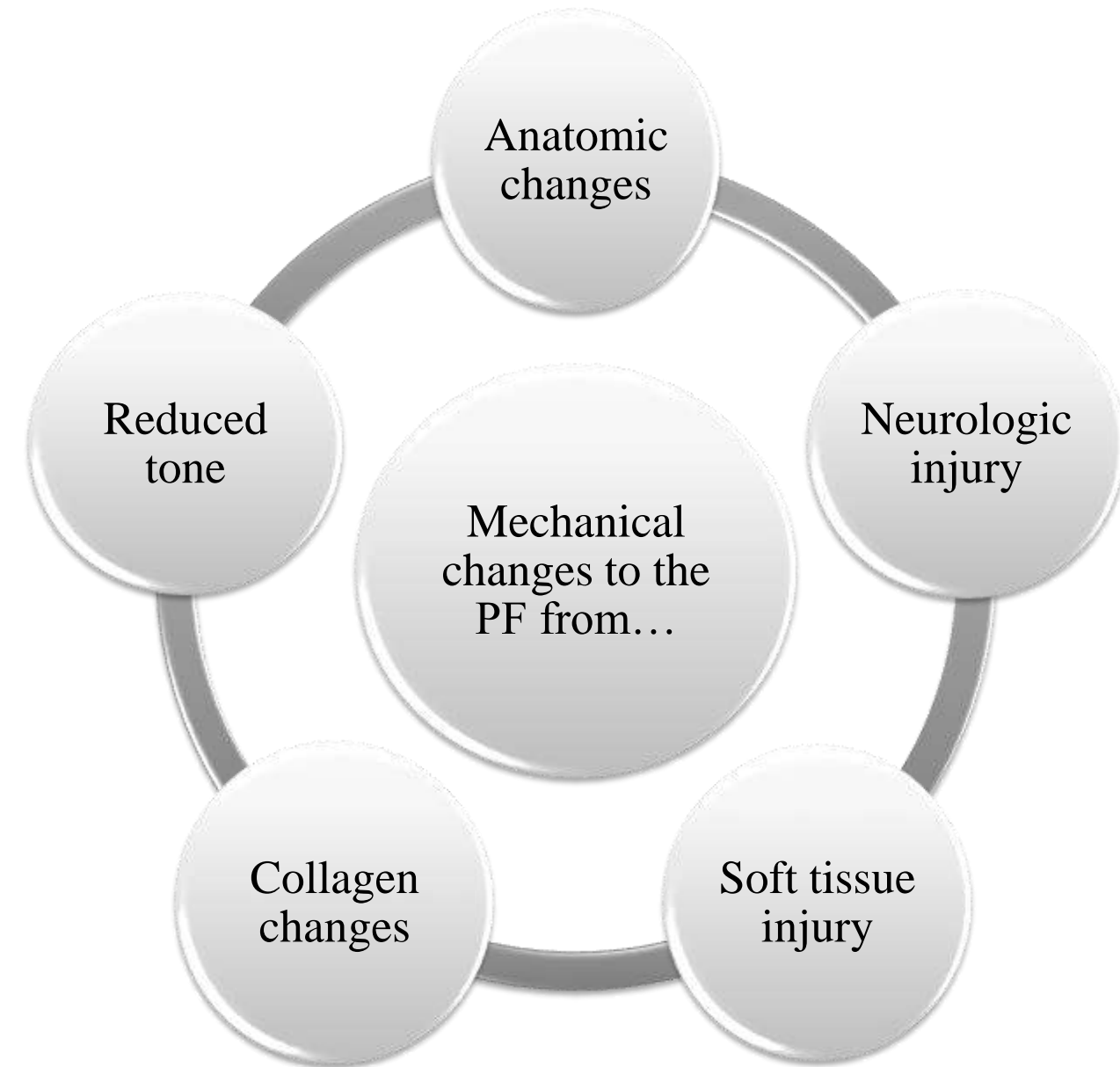


Pelvic Floor Dysfunction

Types of PFD

- Bladder control issues
- Bowel control issues
- Pelvic organ prolapse
- Myofascial pain syndrome

Pelvic Floor Dysfunction



Etiology of PFD

1. Learned poor evacuation techniques
2. History of surgical or obstetrical trauma
3. History of sexual assault/abuse
4. Posture/gait, and skeletal asymmetry
5. Degenerative neuromuscular disease
6. History of spinal injury, low back injury/surgery
7. Atrophic vaginitis, vulvodynia
8. Medications



Pelvic Floor Dysfunction

Risk Factors for PFD

- Aging ★
- Obesity ★
- Increasing parity
- Childbearing
- Hysterectomy
- Menopause
- Straining
- Collagen abnormalities
- Other pelvic organ abnormalities

★ The aging of the U.S. population along with the obesity epidemic will result in increased rates of PFD



Pelvic Floor Dysfunction

Clinical Presentation of PFD

	Urologic	Gynecologic	Colorectal	General/other
History	<ul style="list-style-type: none">• Irritation urinary symptoms• Difficult urination• Urinary incontinence• Bladder spasm	<ul style="list-style-type: none">• Dyspareunia• Sexual dysfunction• Vaginal bulge• Vaginal spasm	<ul style="list-style-type: none">• Constipation• Difficult defecation• Fecal incontinence• Rectal spasm	<ul style="list-style-type: none">• Pelvic pain/pressure• Abdominal pain• Bloating
Physical Exam	<ul style="list-style-type: none">• Cystocele• Urethrocele	<ul style="list-style-type: none">• Uterine prolapse• Vaginal prolapse• Enterocele	<ul style="list-style-type: none">• Rectocele• Rectal prolapse	<ul style="list-style-type: none">• Levator ani spasm• Abdominal trigger points• Perineal descent• Pudendal neuralgia



Pelvic Floor Dysfunction

Differential Diagnosis of PFD

	Urologic	Gynecologic	Colorectal	General/other
Diagnosis	<ul style="list-style-type: none">• Urinary tract infection• Urolithiasis• Urethral diverticula• Bladder neoplasm• Interstitial cystitis	<ul style="list-style-type: none">• Endometriosis• Gynecologic neoplasm• Uterine leiomyoma• Ovarian retention syndrome• Pelvic congestion syndrome• Vulvodynia	<ul style="list-style-type: none">• Bowel obstruction• Irritable bowel syndrome• Diverticular disease• Inflammatory bowel disease• Rectal neoplasm	<ul style="list-style-type: none">• Pelvic abscess• Pelvic hernia• Spinal/sacral neoplasm• Pelvic neuropathy• Pelvic neoplasm• Abdominal neoplasm



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Diagnostic Work-up of PFD

- Directed toward the patient's presenting complaint
- Serves to rule out other potential causes
- Clinical diagnosis may be possible

	Urologic	Gynecologic	Colorectal	General/other
Diagnostic Studies	<ul style="list-style-type: none">• Urinalysis• Urodynamics• Cystoscopy	<ul style="list-style-type: none">• Pelvic ultrasound	<ul style="list-style-type: none">• Anorectal manometry• Endoscopy• Defecography	<ul style="list-style-type: none">• Electromyography• CT abd/pelvic• MRI pelvis



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Management of PFD

- Developed based on the specific needs of the patient
- Ranges from lifestyle modification to surgical intervention
- Strategies are not mutually exclusive
- Often utilizes a multidisciplinary approach

- ❖ Primary Care Provider
- ❖ Gynecologist
- ❖ Urologist
- ❖ Urogynecologist
- ❖ Colorectal surgeon
- ❖ Pelvic Floor Physical Therapist
- ❖ Sex Therapists
- ❖ Geriatric Specialists
- ❖ Psychologists/Psychiatrists





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Lifestyle Modification for PFD

- Dietary changes
 - ❑ *Avoid/reduce alcohol, caffeine, tobacco products, acidic foods/beverages, concentrated sugar, artificial sweeteners, spicy foods*
- Weight loss
- Kegels/pelvic floor muscle training
- Core exercises
- Relaxation techniques
 - ❑ *Meditation, yoga, exercise, stretch/massage, ice/heat*
- Alternative therapies
 - ❑ *Acupuncture, chiropractic*



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Kegel exercises

- Isolate the pelvic floor muscles
 - ❑ Imagine trying to stop passing gas
 - ❑ Imagine stopping stream of urine
 - ❑ Insert finger into vagina and squeeze as if trying to hold urine.
- Relax pelvic floor muscles between each Kegel squeeze
- Fully relax muscles in your stomach, back, thighs, and buttocks
- Breath normally, don't hold breath
- Don't do Kegel exercises while urinating
- Don't overdo it





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Mechanical/Manipulative Strategies for PFD

➤ Pessary

- ❑ *soft flexible device placed in the vaginal that supports the bladder, uterus, and rectum*

➤ Biofeedback

- ❑ *Intra-anal or intra-vaginal as well as surface electrodes stimulate contraction and relaxation of the PF*
- ❑ *Performed by trained specialist*

➤ Pelvic Floor Physical Therapy (PFPT)

- ❑ *Complete assessment and development/implementation of rehabilitation plan*
- ❑ *Performed by trained specialist*



Pelvic Floor Dysfunction

PFPT Assessment

- General MS system evaluation
 - ❑ *Posture, gait, ROM, strength of relevant muscle groups, soft tissues*
- Pelvic floor musculature evaluation
- Pelvic floor soft tissue evaluation
- Trigger point ID and pain mapping
- Neurologic exam

PFPT Rehabilitation

- Myofascial manipulation
- Mobilization and active/passive stretching
- Connective tissue manipulation
- Scar tissue mobilization
- Pelvic floor muscle re-education
- Reassessment and adjustment of rehabilitation plan as needed



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Medications for PFD

➤ Management of vaginal atrophy/dyspareunia

- ❑ *Topical estrogen*
- ❑ *Ospemifene/Osphena®*
- ❑ *Prasterone vaginal insert/Intrarosa®*

➤ Management of bladder symptoms

- ❑ *Anticholinergics/antimuscarinics (Ex: tolterodine/Detrol®) or Beta 3 agonists (Ex: mirabegron/Myrbetriq®) for overactive bladder*

➤ Management of myofascial pain

- ❑ *NSAIDs*
- ❑ *Skeletal muscle relaxants*
- ❑ *Vaginal diazepam/Valium®*
- ❑ *Opioids*
- ❑ *Other management of chronic pain*

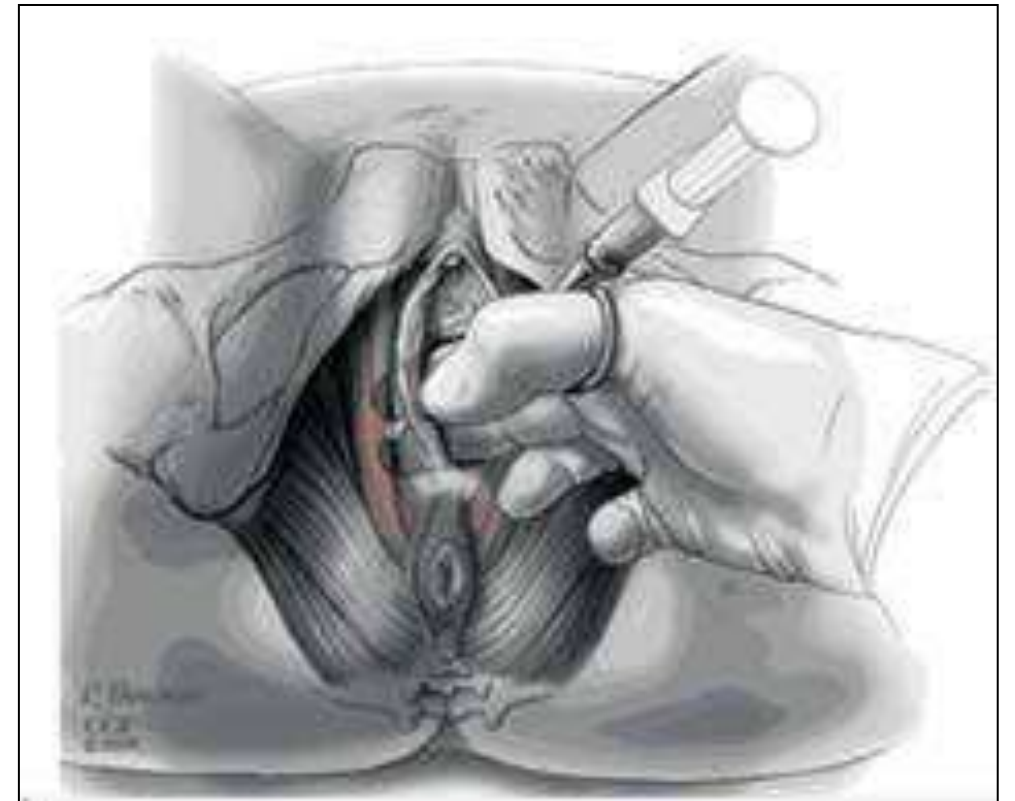




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Invasive Procedures for PFD

- Trigger point injections
- Sacral nerve stimulation/neuromodulation
- Botox injections

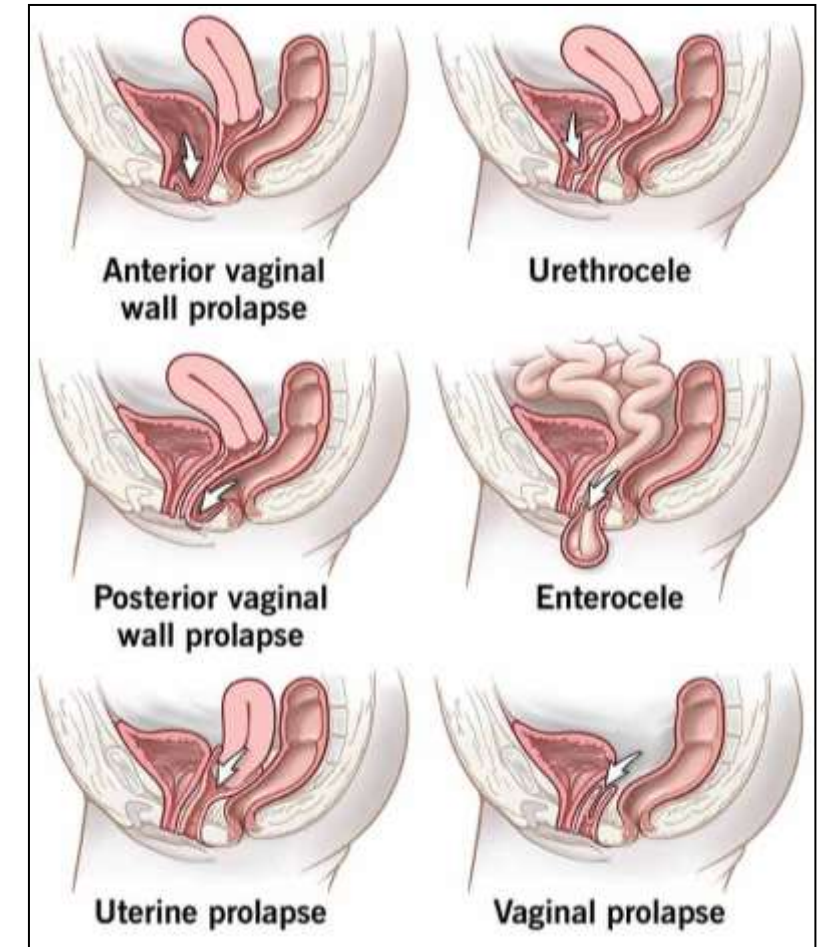




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Surgical Options for PFD

- Urinary incontinence- mid-urethral sling
- Cystocele- anterior colporrhaphy
- Uterine prolapse- hysterectomy and uterosacral suspension
- Vaginal prolapse- sacrocolpopexy, vaginal obliteration
- Enterocele- rectovaginal fascia repair, obliteration of cul-de-sac
- Rectocele- posterior colporrhaphy, transrectal repair
- Rectal prolapse- rectopexy, perineal resection





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PFD in Trans Females

- All individuals have a pelvic floor
- Special considerations for transgender females
 - ❑ Tucking reproductive organs may have an impact on the PF
 - ❑ Hormone therapy may have an impact on the PF
 - ❑ Vaginoplasty can impact the PF
 - ❑ PFPT, before and after gender-affirming vaginoplasty, has been shown to improve the outcomes in pelvic floor function
 - ❑ Additional work-up of pelvic floor related symptoms may be needed based on remaining male organs





Pelvic Floor Dysfunction

Screening for PFD

- **The Pelvic Floor Disorders Consortium (PFDC)** is a multidisciplinary organization of colorectal surgeons, urogynecologists, urologists, gynecologists, gastroenterologists, physiotherapists, and other advanced care practitioners.
- Goals include:
 - ❑ *collaborate through clinical care and research*
 - ❑ *develop and evaluate educational programs*
 - ❑ *create clinical guidelines and algorithms*
 - ❑ *promote overall quality of care for pelvic floor disorders*

- The PFDC Expert Meeting convened on October 13, 2018 in Chicago, Illinois.
 - ❑ *100+ international experts*
 - ❑ *12 countries*
 - ❑ *5 subspecialties*
 - ❑ *The goal of the meeting was to “generate inclusive, rather than prescriptive, guidelines for all practitioners, irrespective of discipline, in the care and treatment of patients with pelvic floor disorders.”*





Pelvic Floor Dysfunction

Development of a new and unique tool/questionnaire to assess PFD

TABLE 1. Final list of instruments recommended for inclusion in the IMPACT (Initial Measurement of Patient-Reported Pelvic Floor Complaints) tool, long and short forms

<i>Patient-reported complaint</i>	<i>Sex (and additional considerations)</i>	<i>Consensus instrument</i>	<i>Individual number of questions added to IMPACT (long form)</i>	<i>Cumulative number of questions in the IMPACT (short form)</i>
Fecal incontinence	Both	Cleveland Clinic Florida Incontinence Scale (CCFIS)	5	12
Constipation	Both	St. Mark's Incontinence Score (MIS)	7	
	Both	Patient Assessment of Constipation-Symptoms (PAC-SYM)	12	
	Both	Constipation Severity Instrument (CSI)	16	
Additional relevant anorectal complaints	Both	Colorectal Anal Distress Inventory (CRADI)	8	
	Both	Bristol Stool Scale (BSS)	1	
Urinary incontinence (UI) and lower urinary tract symptoms (LUTS) other than UI	Men/UI	Urogenital Distress Inventory (UDI-6)	6	14
	Men/LUTS	International Prostate Symptoms Screening (IPSS)	8	
	Women/UI	Urogenital Distress Inventory (UDI-6)	6	24
	Women/LUTS	ICIQ-Female Lower Urinary Tract Symptom Questionnaire Short Form (ICIQ-FLUTS)	12	
Pelvic organ prolapse	Women	Pelvic Organ Prolapse Distress Inventory (POPDI)	6	
Sexual function	Men	International Index of Erectile Function (IIEF)	15	8
	Women (with known pelvic floor disorder)	Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR)	Sexually active 21 Not sexually active 12	-
	Women (without known pelvic floor disorder)	Female Sexual Function Index Short Version (FSFI-9)	9	9



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➤ The consensus panel created the IMPACT questionnaire for men and women (**Initial Measurement of Patient-reported pelvic floor Complaints Tool**)

- ❑ long form (85 to 94 questions)
- ❑ short form (45 questions)

The questionnaire will assess:

- fecal incontinence severity
- urinary incontinence severity
- lower urinary tract symptoms in women
- lower urinary tract symptoms in men
- sexual function in women
- sexual function in men
- constipation
- pelvic organ prolapse
- additional common associated anorectal complaints



Pelvic Floor Dysfunction

1 Please choose which stool type is most like the shape of your stools.

Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Separate, hard lumps like nuts (hard to pass)	Sausage-shaped but lumpy	Like a sausage, but with cracks on the surface	Like a sausage or snake, smooth and soft	Soft blobs with clear-cut edges	Fluffy pieces with ragged edges, a mushy stool	Watery, no solid pieces, entirely liquid

2 During a typical month, how many times do you usually have an uncomfortable or difficult bowel movement?

Never	Daily	A few times per week	Once per week	Once every 2 weeks	Once a month
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 Are you having difficulty with having infrequent bowel movements (less than 1 bowel movement every 3 days)?

NO
SKIP TO Q4

YES
PROCEED

Frequency	Severity	Impact
How often do you experience infrequent bowel movements?	How severe is this symptom for you?	How much does this symptom bother you?
<input type="checkbox"/> Occasionally experience this <input type="checkbox"/> Sometimes experience this <input type="checkbox"/> Usually experience this <input type="checkbox"/> Always experience this	<input type="checkbox"/> Not at all severe (I go almost every day) <input type="checkbox"/> Mild <input type="checkbox"/> Somewhat severe (I go 1-2 times per week) <input type="checkbox"/> Severe <input type="checkbox"/> Extremely severe (I can go up to 4 weeks without going)	<input type="checkbox"/> Not at all bothersome <input type="checkbox"/> A little bothersome <input type="checkbox"/> Somewhat bothersome <input type="checkbox"/> Very bothersome <input type="checkbox"/> Extremely bothersome

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① Do you usually have a bulge or something falling out that you can see or feel in your vaginal area?

NO
SKIP TO Q2

YES
PROCEED

How much does it bother you?

Not at all		PLEASE CIRCLE A NUMBER						A great deal	
1	2	3	4	5	6	7	8	9	10

② Do you ever have to push on the vagina or around the rectum to have or complete a bowel movement?

NO
SKIP TO Q3

YES
PROCEED

How much does it bother you?

Not at all		PLEASE CIRCLE A NUMBER						A great deal	
1	2	3	4	5	6	7	8	9	10

③ Do you ever have to push on a bulge on the vaginal area with your fingers to start or complete urination?

NO
SKIP TO Q4

YES
PROCEED

How much does it bother you?

Not at all		PLEASE CIRCLE A NUMBER						A great deal	
1	2	3	4	5	6	7	8	9	10



Pelvic Floor Dysfunction

① Over the past 4 weeks, how would you describe your **level** (degree) of sexual desire or interest?

Very low or none at all	Low	Moderate	High	Very high
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5

② Over the past 4 weeks, how **confident** were you about becoming sexually aroused during sexual activity or intercourse?

No sexual activity	Very low or no confidence	Low confidence	Moderate confidence	High confidence	Very high confidence
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	1	2	3	4	5

③ 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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	1	2	3	4	5

Link to Surveys: <https://fascrs.org/healthcare-providers/education/pelvic-floor-disorders-consortium>



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