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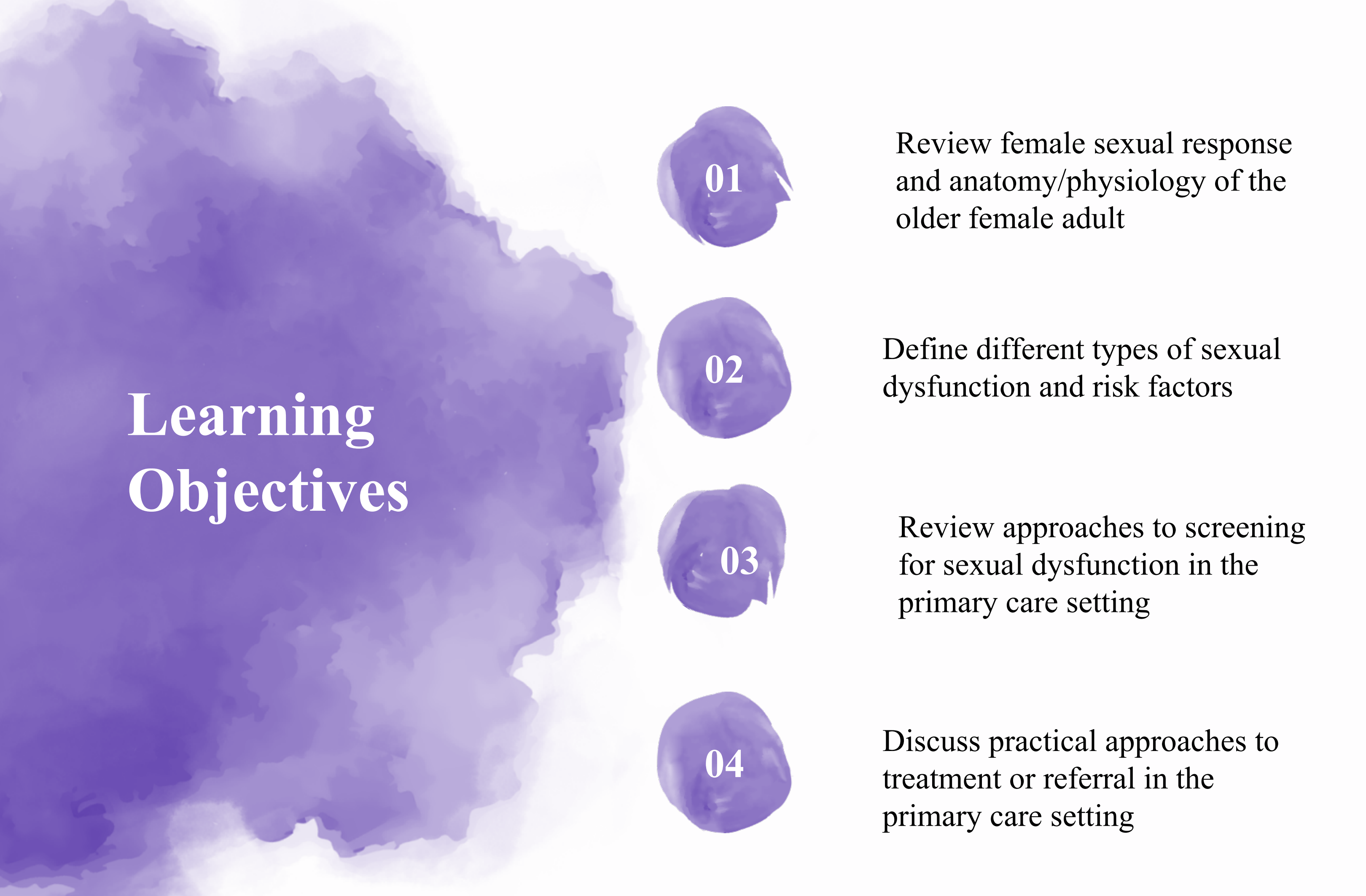
Female Sexual Dysfunction in Older Adults

Resident Lecture- 2.4.2021

Madeline Taskier, PGY2
Department of Family and Community Medicine

Why This Topic?



Learning Objectives

01 Review female sexual response and anatomy/physiology of the older female adult

02 Define different types of sexual dysfunction and risk factors

03 Review approaches to screening for sexual dysfunction in the primary care setting

04 Discuss practical approaches to treatment or referral in the primary care setting

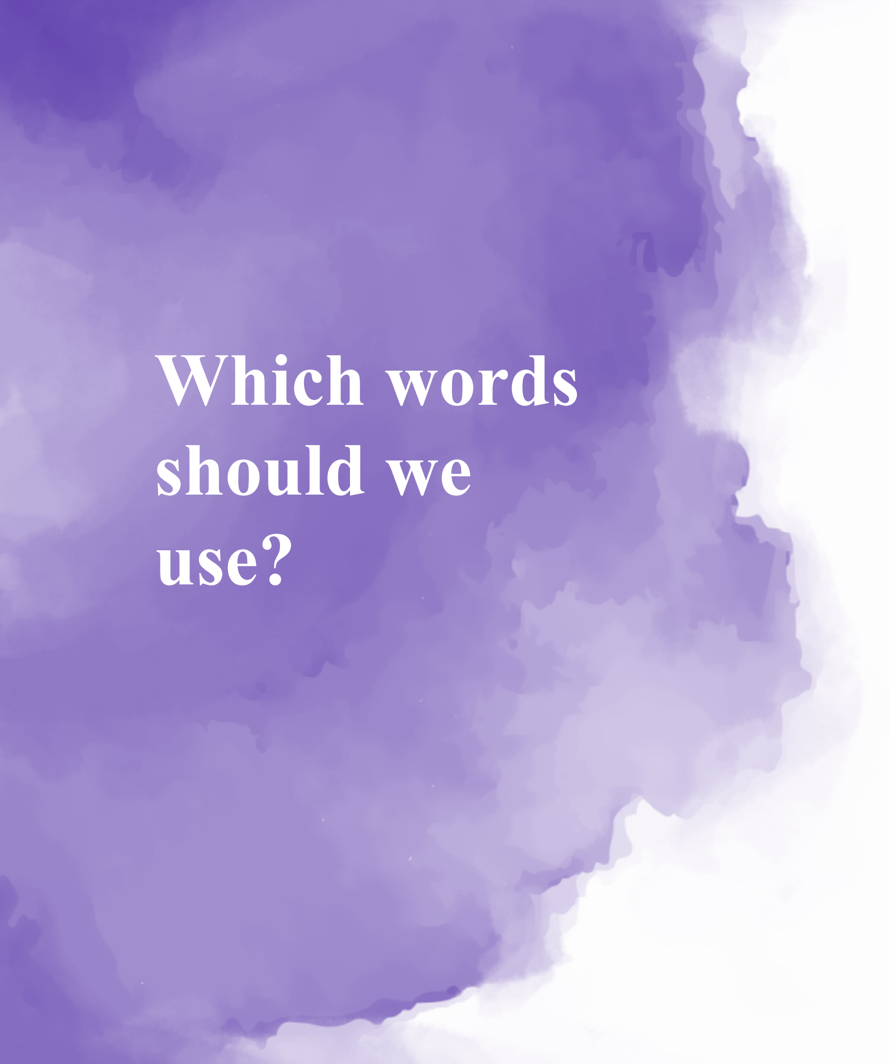
What I Won't Be Covering...

- Male sexual dysfunction disorder
- Perimenopause or menopausal treatment
- STI Screening Guidelines in Older Adults
- Issues surrounding surgical menopause
- Sexual Dysfunction Treatment Approaches for Trans patients
- Sexual Dysfunction Treatment Approaches for Individuals already taking Hormone Therapy for Gender Affirming Care
- Specifics of Physical Therapy Approaches or psychological approaches
- Details of Vaginal CO2 Fractional Laser Treatments

I have no disclosures.

Let’s get started...

Sex is complicated.



Which words should we use?

"Many physicians approach this as a largely biological phenomenon. They are doing a disservice to the fact that a woman's sexual experience is an incredibly complex phenomenon that is shaped by **cultural scripting, family-of-origin experience, relationship dynamics as well as biological factors**."

-Dr. Dennis Sugrue, former president of American Association of Sex Educators, Counselors, Therapists

Why should clinicians care?

Reviewing the epidemiology

43% of American women report experiencing sexual problems

12% consider the problem so bothersome leading to personal distress

10%
18-44 years

15%
45-64 years

9%
64-85 years

40% of women ages 65-74 report they are sexually active

Studied Stereotypes of Sexuality in Older Adults

Older adults are Asexual Beings

Sexuality is something “dirty” or wrong

Sexuality comes naturally and spontaneously- it doesn’t require skills or communication

Each physical contact must lead to intercourse.

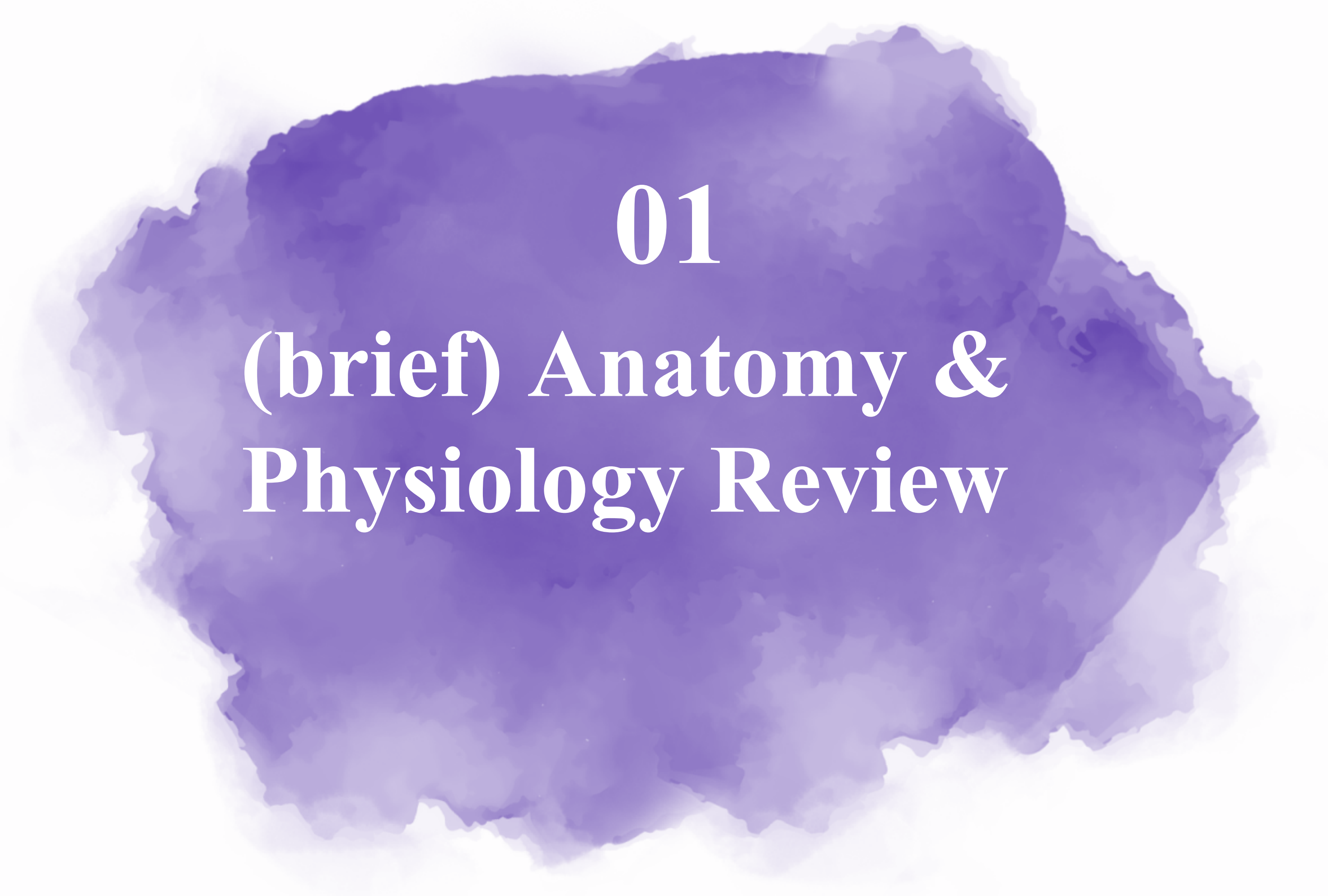
monkeybusinessimages

Medicare Annual Wellness visits mandates that weight loss, fall prevention, physical activity, cognition, vision, hearing, and smoking should be addressed, but there are no requirements for sexual history.

Why not?

Let’s Hear From You.

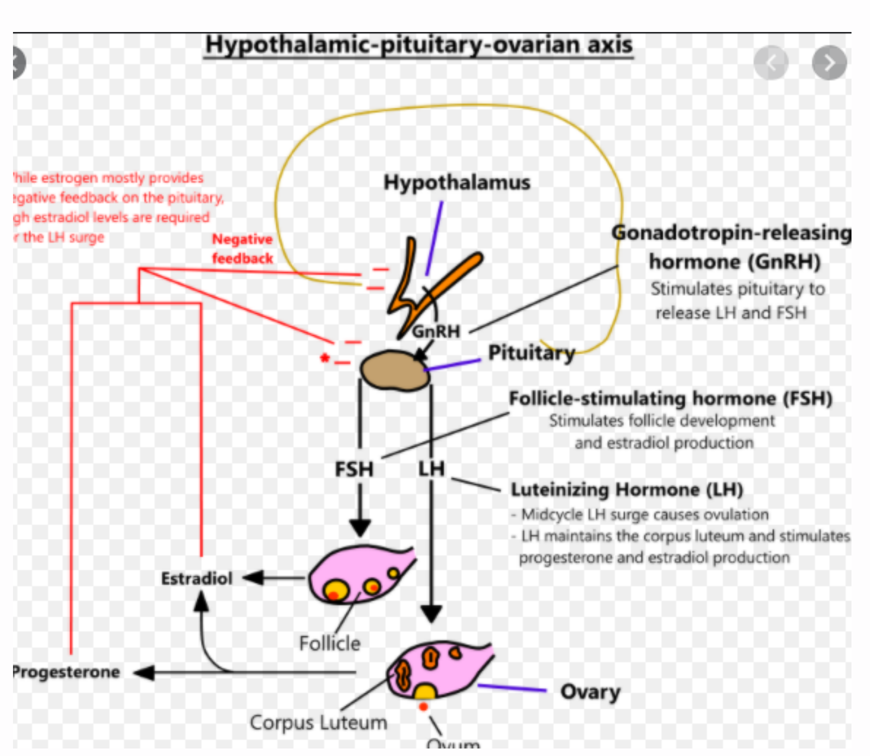
Have any of you had experience discussing sexual health or sexual concerns with older female patients?



01

(brief) Anatomy & Physiology Review

Hypothalamic Pituitary Ovarian Axis



1. Premenopausal
2. Peri-menopausal
3. Menopausal

armandoh.org/menopause

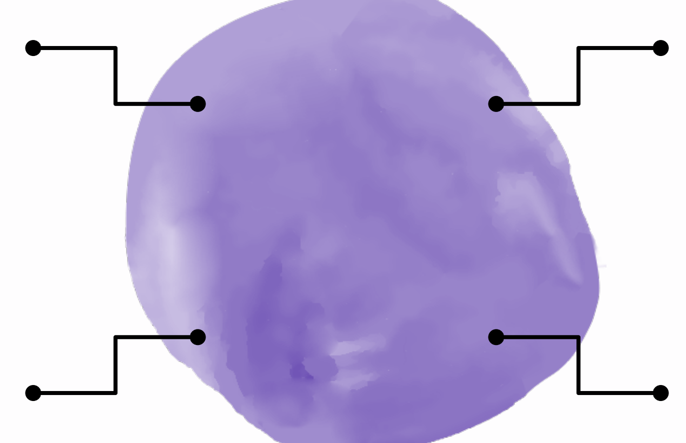
Post-menopausal Changes to Genital Tract

Pelvic Floor

Weakening of multiple muscle groups

Vaginal Mucosa

Pale, decreased elasticity, thinner epithelium, inflammation



Labial Changes

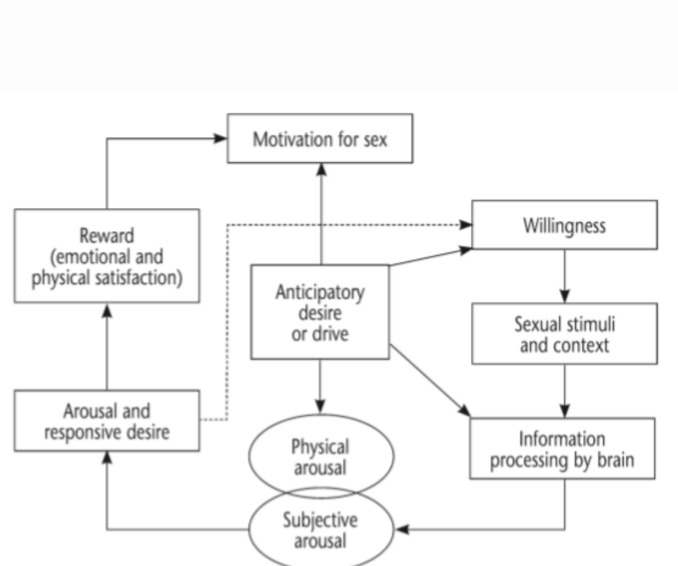
Loss of labial fat pad, thinning of labia minora

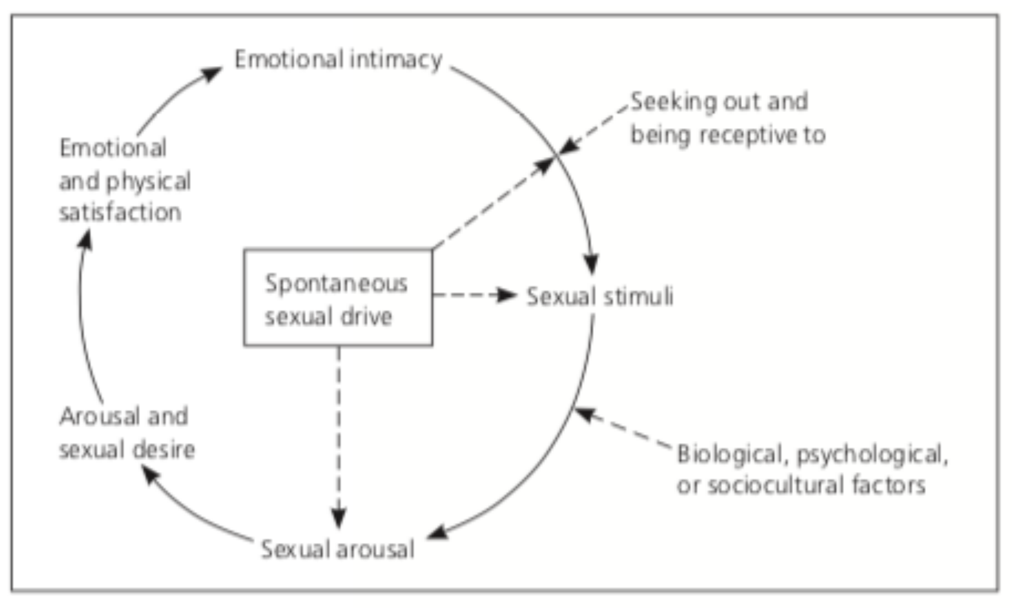
Structure

Shortening and narrowing of vaginal canal, loss of vaginal rugae

Non- Linear Female Sexual Response

Sexual Desire = Motivation to Have Sex
Sexual Arousal = Physiologic Process of arousal including vaginal lubrication and genital warmt related to blood flow





Basson R.

02
Female Sexual Dysfunction

Disorder Subtypes

Types of Female Sexual Dysfunction - DSMV

Female Sexual-Interest/Arousal Disorder

Female Orgasmic Disorder

Substance/medication-induced dysfunction

Genito-pelvic pain/penetration disorder

Female Sexual Interest/Arousal Disorder - DSMV

A. Lack of, significantly reduced, sexual interest/arousal by at least 3 the following:
   a. Absent/reduced interest in sexual activity
   b. Absent/reduced sexual/erotic thoughts or fantasies
   c. No/reduced initiation of sexual activity
   d. Absent/reduced sexual excitement/pleasure during sexual activity in 75-100% of the time
   e. Absent/reduced sexual interest/arousal in response to internal or external sexual/erotic clues
   f. Absent/reduced genital/nongenital sensation during sexual activity 75-100% of the time
B. Persisted for **minimum duration 6 months**
C. Symptoms cause clinically significant distress in the individual
D. The dysfunction is not better explained by nonsexual mental disorder or consequence of severe relationship distress (e.g. IPV), or effects of substance/medication

Female Orgasmic Disorder - DSMV

A. Marked Delay in, marked infrequency of, or absence of orgasm, or markedly reduced intensity of orgasmic sensation, in almost all or all occasions of sexual activity.
B. Persisted for **minimum duration 6 months**
C. Symptoms cause clinically significant distress in the individual

Genito-Pelvic Pain/Penetration Disorder- DSMV

A. The persistent or recurrent presence of one or more of the following symptoms:
   a. Difficulty having intercourse
   b. Marked vulvovaginal or pelvic pain during intercourse or penetration attempts
   c. Marked fear or anxiety about vulvovaginal or pelvic pain anticipating during, or resulting from vaginal penetration
   d. Marked tensing or tightening of the pelvic floor muscles during attempted vaginal penetration
B. Persisted for **minimum duration 6 months**
C. Symptoms cause clinically significant distress in the individual

Substance/Medication-Induced Sexual Dysfunction - DSMV

A disturbance in sexual function that has temporal relationship with substance or medication initiation, dose increase, or substance/medication discontinuation and causes clinically significant distress in the individual.*

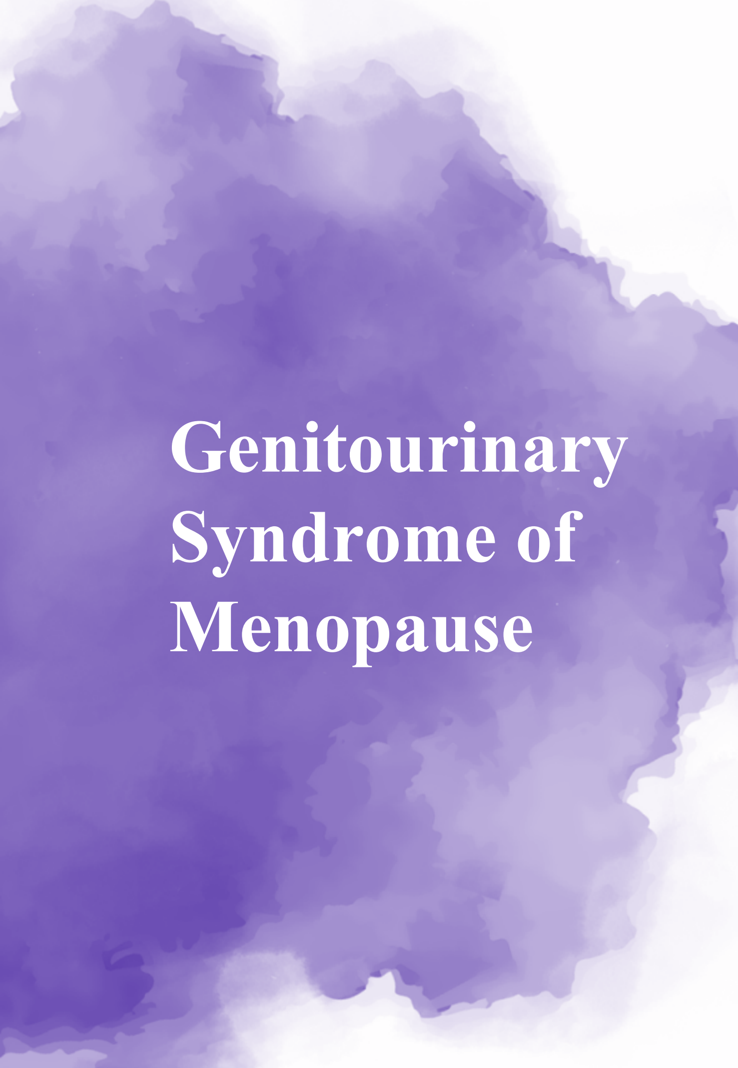
*Disturbance is not better explained by an independent sexual dysfunction disorder.

Other specified sexual dysfunction and other unspecified sexual dysfunction - “The Leftovers”

Distressing symptoms characteristic of a sexual dysfunction t**hat do no meet criteria of one of the defined categories.** Major distinction between other categories and unspecified sexual dysfunction is whether the clinician specifies the reason that the symptoms described do not meet the criteria for one of the other classes.

- Pregnancy Related Sexual Dysfunction

- Menopausal Related Sexual Dysfunction



Genitourinary Syndrome of Menopause

Vulvovaginal Atrophy

Urinary Symptoms

Recurrent UTIs

Vaginal Dryness

Burning & Irritation

Decreased lubrication and pain during intercourse

80% of adults age 65 and older have at least 1 chronic condition, 68% have 2 or more chronic conditions.

Medical Conditions Affecting Sexual Dysfunction

Condition	Type of dysfunction: Desire	Arousal	Orgasm	Pain	Comments
Arthritis				+	Decreased mobility and chronic pain may impair sexual function
Coronary artery disease		+			—
Dermatologic conditions (e.g., vulvar lichen sclerosus, vulvar eczema, psoriasis)				+	—
Diabetes mellitus	+				—
Gynecologic conditions (e.g., sexually transmitted infections, endometriosis, chronic pelvic pain, pelvic pain following childbirth, pelvic organ prolapse)				+	—
Hypertension	+				Impact of hypertension or treatment is unclear; one study found an association with low desire
Hypothyroidism		+	+		Increased problems with lubrication and orgasm
Malignancy and treatment (e.g., breast, anal, colorectal, bladder, and gynecologic cancers)	+	+	+	+	Sexual function may be directly or indirectly impacted by cancer diagnosis and treatment; factors include cancer diagnosis, disease itself, treatment (surgery, radiation, chemotherapy), and body image
Neuromuscular disorders, spinal cord injury, multiple sclerosis	+	+	+	+	Direct impact on sexual response; indirect effect on desire may be mediated by arousal disorders or pain
Parkinson disease, dementia, head injury	+				Desire may be increased or decreased
Pituitary tumor, hyperprolactinemia	+				—

AAFP, 2015

Medication & Substance Review

1. **New** medications including OTC medicine and vitamins

2. Review **recently discontinued** meds

3. Review **patterns of substance use**

Table 2. Medications Associated with Female Sexual Dysfunction

Medication	*Type of dysfunction*		
	Desire disorder	*Arousal disorders*	*Orgasm disorders*
Amphetamines and related anorectic medications			+
Anticholinergics		+	
Antihistamines		+	
Cardiovascular and antihypertensive medications			
Antilipids	+		
Beta blockers	+		
Clonidine	+	+	
Digoxin	+		+
Methyldopa	+		
Spironolactone	+		
Hormonal preparations			
Antiandrogens	+	+	+
Danazol	+		
Gonadotropin-releasing hormone agonists	+		
Gonadotropin-releasing hormone analogues	+	+	
Hormonal contraceptives	+		
Tamoxifen	+	+	
Ultra-low-potency contraceptives	+	+	
Monoamine oxidase inhibitors			
Trazodone	+		
Venlafaxine	+		
Narcotics			+
Psychotropics			
Antipsychotics	+		+
Barbiturates	+	+	+
Benzodiazepines	+	+	
Lithium	+	+	+
Selective serotonin reuptake inhibitors	+	+	+
Tricyclic antidepressants	+	+	+
Other			
Aromatase inhibitors	+	+	
Chemotherapeutic agents	+	+	
Histamine H_2 blockers and promotility agents	+		
Indomethacin	+		
Ketoconazole	+		
Phenytoin (Dilantin)	+		

AAFP. 2015

So now that we know what we're up against...

How do we approach this in the primary care setting>

03

Screening for Sexual Health Concerns

How do you ask about this?

- **“Do you have any concerns about keeping yourself healthy and safe?”**
- **“Many women experience concerns about sex. Are you experiencing any issues?**
- **“Have you been satisfied with the frequency and nature of your sexual activities?”**
- **“Has anyone ever coerced or forced you to have sex?”**
- **Take a Sexual history - do an infection risk assessment.**

Journal of American Geriatrics Society, 2018

PLISSIT MODEL

Table 5. PLISSIT Model for Addressing Sexual Health with Women

Steps	*Examples of what to say to patients*
Permission: Give patient permission to speak about her sexual health and to do what she is already doing sexually (or may want to do).	"This is important. Thank you for sharing. Many postmenopausal women report a decrease in sexual desire."
Limited information: Provide basic accurate sex education (e.g., female sexual response cycle, impact of aging on sexual function, anatomy).	"Sexual desire changes with age. After menopause you may experience more responsive desire than spontaneous desire."
Specific suggestions: Provide simple suggestions to increase sexual function (e.g., lubricant use, vibrator use, ways to increase emotional intimacy).	"Your responsive sexual desire may benefit from being more planful with sexual activity. Talk with your partner about how to be more intentional sexually."
Intensive therapy: Validate the patient's concerns and refer her to a subspecialist (see eTable A for resources).	"Your sexual health is important. I'd like to refer you to someone with expertise in sexual health."

AAFP, 2015, Journal Sex Education Therapy

Biopsychosocial Approach

Biological

Meds, hormones, neurobiology, physical health, functional status, aging

Psychological

Depression, anxiety, self-image, substance abuse, hx of sexual abuse/trauma

Sociocultural

Upbringing, cultural norms, expectations, religious influence

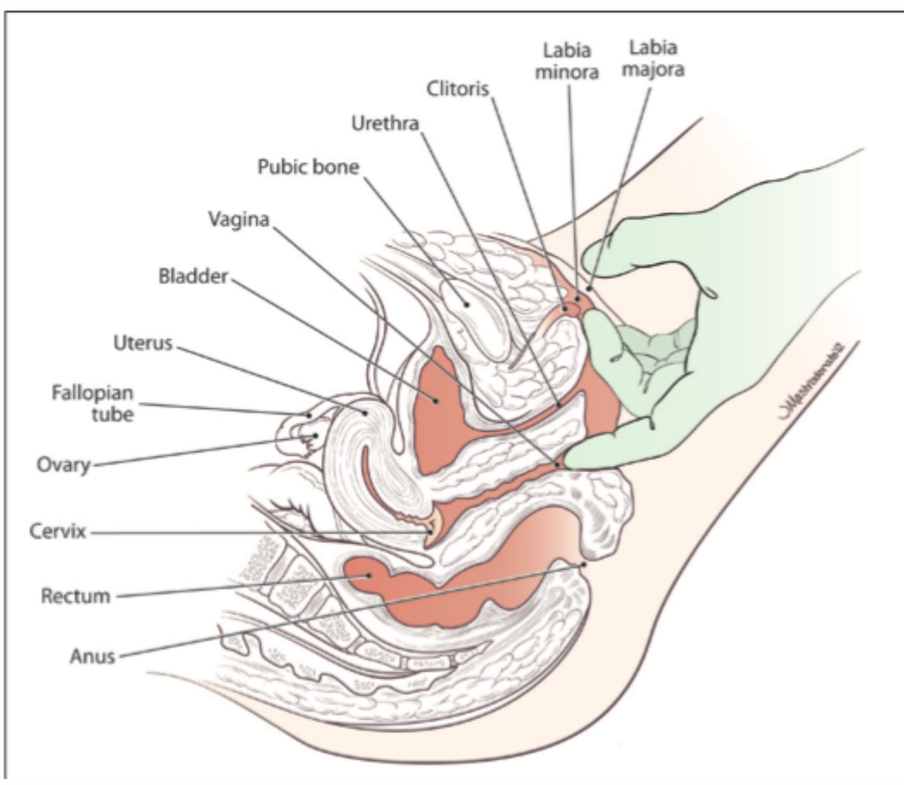
Interpersonal

Relationship status/quality, partner sexual function, life stressors

Hint: This may take more than one visit to address. Utilize your behavioral health colleagues!

Physical Exam (if indicated)

Mons pubis
Pudendal cleft
Prepuce of clitoris
Glans of clitoris
Labia minora
Openings of paraurethral ducts (Skene's ducts)
External urethral opening
Labia majora
Opening of Bartholin's gland
Vestibular fossa
Hymen
Vaginal opening
Anus
Perineal raphe



AAFP, Dyspareunia in Women, 2014

04

Treatment Approaches

Role of Estrogen Therapy
(Level A evidence)

Data from Cochrane Review 2013, >15 RCTs

- Preferred Treatment for genitourinary syndrome of menopause

- Vaginal tablets, gels, creams, and rings appear to be equally effective

- Minimal systemic absorption with initial use of vaginal estrogen → absorption decreases as epithelium matures

- Low dose vaginal estrogen preferred over low dose systemic estrogen (w/ or w/o progestin) for tx of women with only vaginal symptoms

- With vasomotor symptoms, low-dose systemic estrogen is most effective for vasomotor AND dyspareunia related to genitourinary syndrome of menopause

Image from: mintrx

Administration

Table 1. Low-Dose Vaginal Estrogen Preparations and Suggested Regimens

Formulation	Composition	FDA-Approved Dosages*
Vaginal cream	17β-estradiol	The usual dosage range is 2–4 g (marked on the applicator) daily for 1 week or 2 weeks, then gradually reduced to one half of the initial dosage for a similar period. A maintenance dosage of 1 g one to three times a week may be used after restoration of the vaginal mucosa has been achieved.†
Vaginal cream	Conjugated equine estrogen	Cyclic administration of 0.5 g intravaginally (daily for 21 days then off for 7 days) for treatment of moderate-to-severe dyspareunia, a symptom of vulvar and vaginal atrophy, due to menopause. Twice weekly administration of 0.5 g intravaginally (for example, Monday and Thursday) for treatment of moderate-to-severe dyspareunia, a symptom of vulvar and vaginal atrophy, due to menopause.‡
Vaginal ring	17β-estradiol	2-mg ring releasing 7.5 micrograms/d for 90 days
Vaginal tablet	Estradiol hemihydrate	10 micrograms/d for 2 weeks and then 10 micrograms/d two times a week

Abbreviation: FDA, U.S. Food and Drug Administration.

*FDA-approved dosages of conjugated estrogen and estradiol creams are greater than those currently used in clinical practice that are proven to be effective.

†In clinical practice, these protocols also are used: 1 g every night for 2 weeks, then two times per week or 0.5 g twice weekly.

‡In clinical practice, this protocol also is used: 0.5 g twice weekly.

Risks for Breast & Endometrial Cancer

- ACOG Committee Opinion 2016: Women with history of estrogen-dependent breast cancer experiencing genitourinary symptoms, vaginal estogen (with or without progestins) **should be reserved for patients who are unresponsive to non-hormonal remedies**. Need a discussion with oncologist.
- Data **does not show increased risk of cancer recurrence** among women currently undergoing treatment for breast cancer.

- Systematic Review in peer-reviewed Menopause 2019 (review of 5,593 abstracts) supports use of low-dose vaginal estrogens for treating vulvar and vaginal atrophy in menopausal women without concomitant progestogen. **No increase endometrial hyperplasia or cancer risk** with low-dose unopposed vaginal estrogens

Selective Estrogen Receptor Modulator-SERM
(Level A evidence)

- **Ospemifene (Osphena)-** agonist effects on estrogen receptors selectively on genital tract and antagonist selectively on breast tissue. Has moderate agonist effect on endometrial tissue
- Approved by FDA in 2013 for systemic treatment of genitourinary syndrome of menopause
- 60mg daily for the “shortest possible duration” Clinical trials for this medication lasted mean 15 months
- Not associated with endometrial cancer of hyperplasia when used continuously for 1 year
- Currently being studied for safe use with estrogen -sensitive cancer
- Can’t be used along with local vaginal estrogen
- Contraindicated in hx of VTE/PE or estrogen-dependent neoplasia

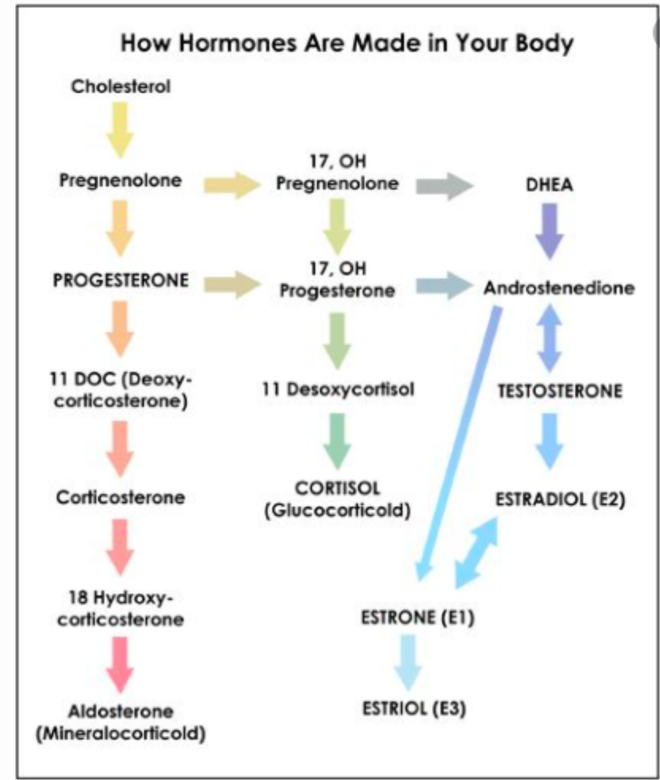
Androgen Therapy - Transdermal Testosterone

(Level B evidence)

- Treatment option for **postmenopausal women with sexual interest and arousal disorder**
- Short-term transdermal testosterone
- Studied in systematic review of 7 RCTs (n = 3,000), 300 mcgm testosterone transdermal patch vs. placebo
- **3-6 month trial** with assessment of testosterone levels at baseline and repeat labs after 3-6 weeks of initial use to see levels within normal range for reproductive age women.
- Follow up labs q6 months
- Should be discontinued at 6 months if patient doesn't show a response
- Long term safety and efficacy has not been studied
- Watching out for **hirsutism, acne, virilization** (voice deepending, clitoral enlargement)

Androgen Therapy - Systemic DHEA
(Level A evidence)

- Tested but has **not shown efficacy in postmenopausal women** for treatment of sexual interest and arousal disorders
- 2015 Cochrane Review did show improvement in DHEA versus placebo but effect was minimal and not all studies focused on females sexual dysfunction.



pharmrx

Buproprion (Wellbutrin)

- Antidepressant-induced female sexual dysfunction
- SSRIs with adverse effect of **lowered libido**
- Mechanism: Norepi-Dopamine Reuptake Inhibitor
- Cochrane Review of women and men showed addition of moderate dose buproprion **increased desire, arousal, lubrication, and orgasm**
- One RCT 2018 of SSRI-induced sexual dysfunction, pts with higher dose 150mg BID has stastically significant higher scores on Female Sexual Function Index than controls

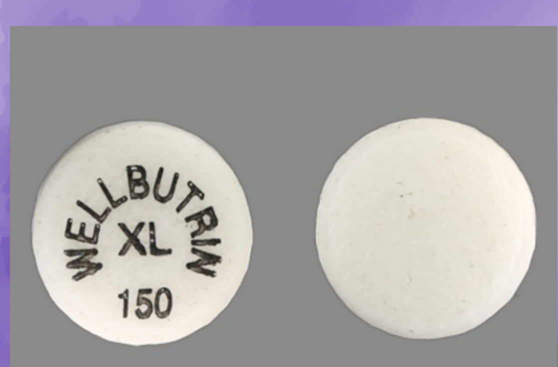


Image: drugs.com

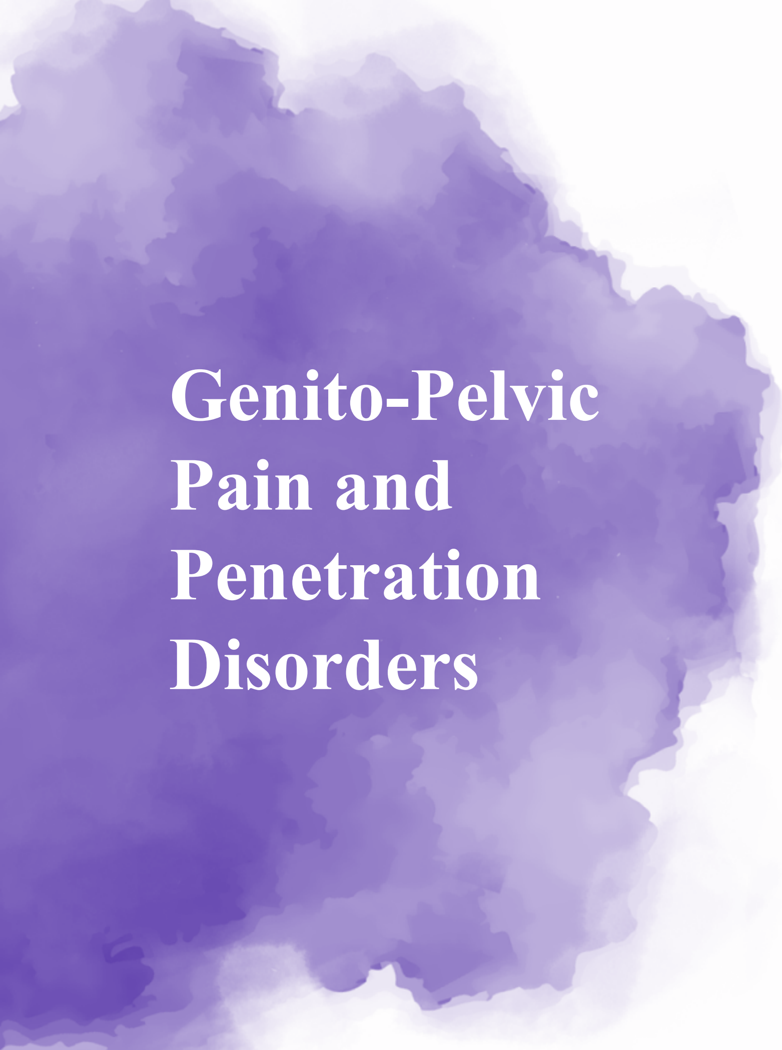
What about female Viagra?

Sildenafil Citrate

- Phosphodiesterase Type 5 inhibitor - vasodilating drug
- Evaluated by not approved by the FDA
- Hypothesis: Vasodilation → increased pelvic blood flow, could address female sexual interest/arousal disorder or orgasmic disorder
- RCTs have been contradictory
- One RCT in 2011 showed benefit in women who used SSRIs in medication-induced sexual dysfunction (not sexual interest or arousal disorder)

Flibanserin (Addyi) - not approved in post-menopausal women - $$$

Bremelanotide (Vyleesi) - not approved in post-menopausal women -$$$



Genito-Pelvic Pain and Penetration Disorders

Patient Education

Intravaginal Prasterone

Vaginal Self Dilation - Relief of Vaginismus

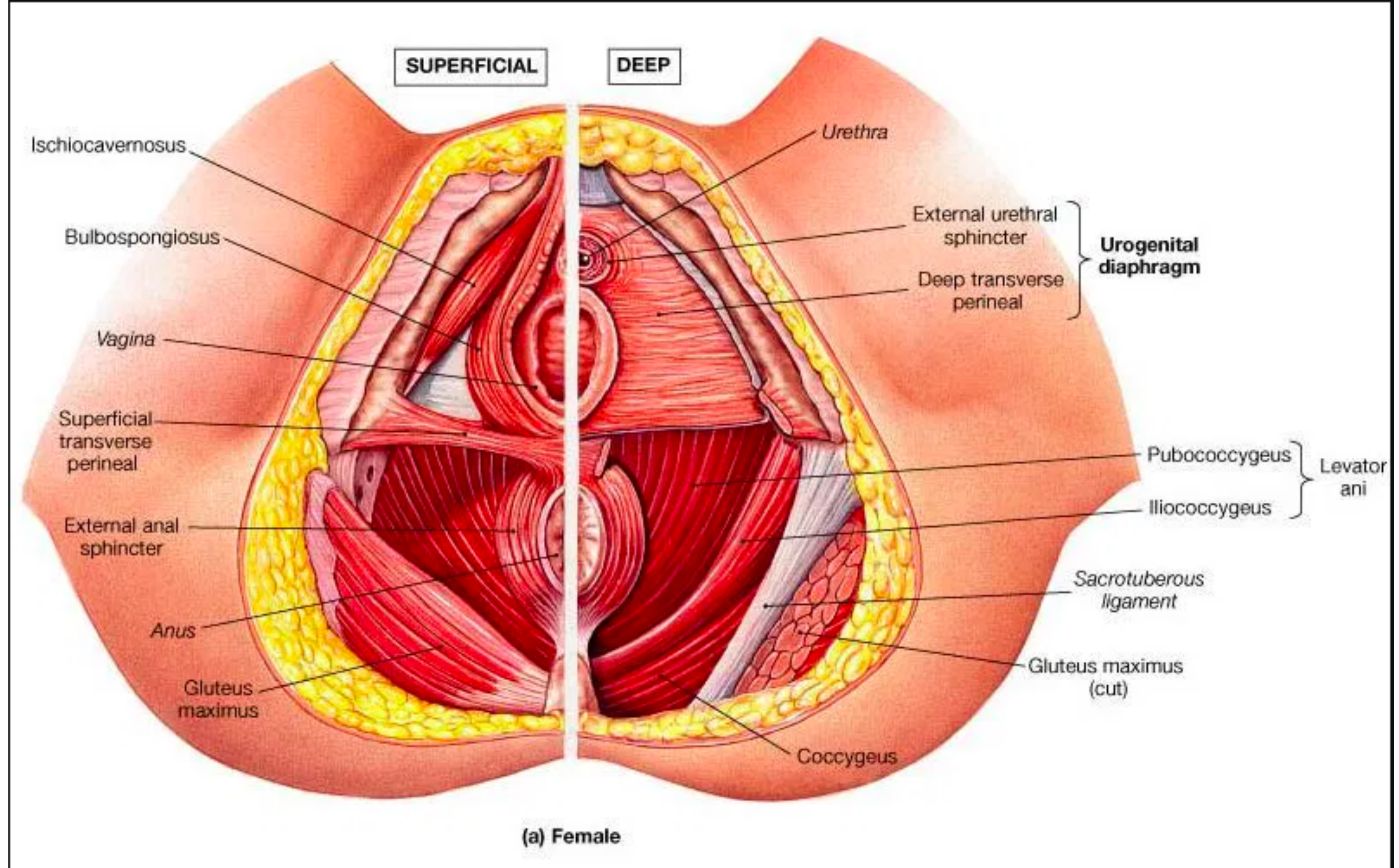
Topical Anesthesia with Lidocaine

Pelvic Floor Physical Therapy*

Botulinum Toxin A

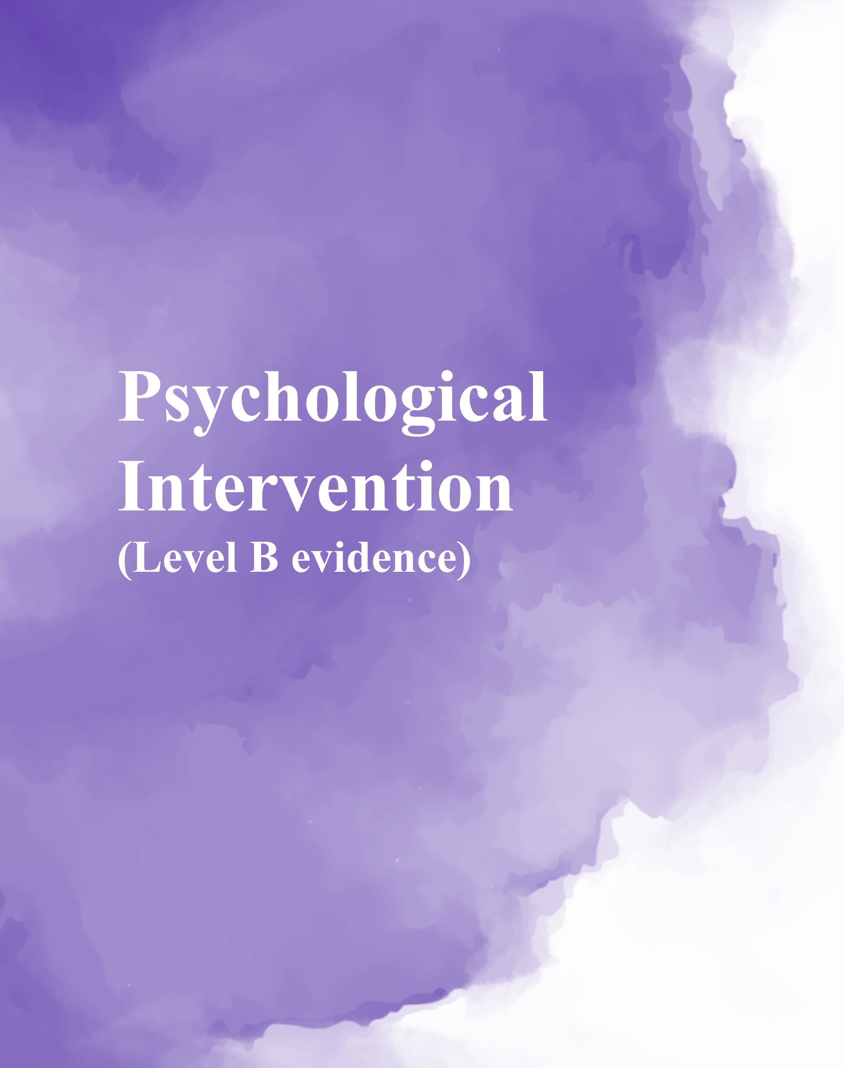
Lubricants

Vaginal CO2 Fractional Laser Tx



(a) Female

Netter’s



Psychological Intervention
(Level B evidence)

- **Sexual Skills Training**
  - Instruction in masturation for orgasmic disorders
- **Cognitive Behavioral Therapy**
- **Mindfulness Based Therapy**
  - Focus on stress reduction, shown to be effective in sexual interest/arousal disorder
- **Couples Therapy**
  - Improving communication with partner
- **Group-based, couples based CBT**
  - Identifying and changing dysfunctional beliefs
- **Trauma Informed Psychotherapy**

A few cases...

Case 1

SR is 71 year old F with PMH of HTN, T2DM on metformin, presenting for AWV. When asked about her soc hx, she says she has been widowed for 4 years but started a new relationship with her neighbor. You ask about any sexual concerns and she says that she had "trouble" having sex with her new partner?

- **How would you approach this?**

Case 2

LS is a 65 year old F G3P2103 all SVDs with PMH osteopenia, coming in because she's been having pelvic pain with sex. Her husband hasn't had any change in libido and its beginning to cause a problem because every time they has sex it's really painful.

How would you approach this patient?

Summary

- Multifactorial Range of Disorders that require an interdisciplinary approach to Female Sexual Dysfunction. Patients can have more than one concurrent disorder!

-Primary Care doctors are well equipped to explore sexual health history and diagnose female sexual dysfunction in the clinic

- A biopsychosocial model of sexual health should be applied when gathering history

-There are multiple safe and efficacious treatment modalities with pharmacology, physical therapy, devices, and psychological approaches to female sexual dysfunction

Resources for More Information on Female Sexual Health and Referral

- Resources for clinicians
  - American Association of Sexuality Educators, Counselors, and Therapist www.aamft.org
  - Society for Sex Therapy and Research www.sstarnet.org
  - International Society for the Study of Women's Sexual Health www.isswsh.org
- Pelvic Physical Therapy - International Pelvic Pain Society www.pelvicpain.org
- Great Books!
  - "Come As You Are" - Emily Nagoski
  - "Come As You Are Workbook" - https://www.amazon.com/Come-You-Are-Workbook-practical/dp/1912854554

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Thank You!

Any Questions?