

The “S” Word:

Demystifying Female Sexual Health



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Objectives

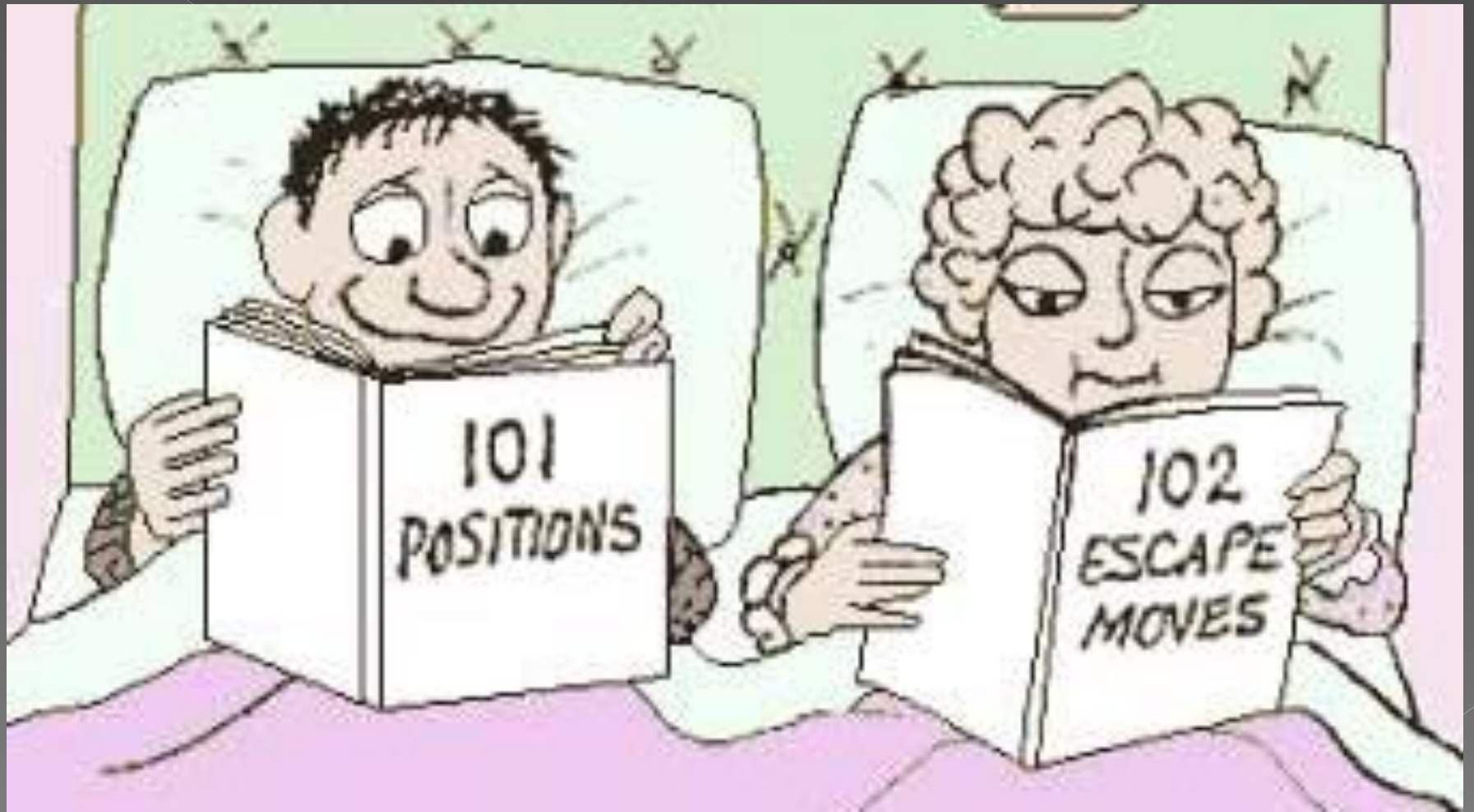
- Prevalence
- Myths
- Science of sexual function
- Definitions
- Evaluation
- Management
- Resources
- Questions

Why is this important?

- Ready or not: your patients WILL ask you
- Every human has the right to better understand and utilize his/her own sexuality
- You have the opportunity to improve quality and quantity of life as well as relationships
- Sexual health IS a part of general health

How common is it?

- 43% of US women aged 18-59 reported
 - > Lacking interest in sex
 - > Lubrication difficulties
 - > Inability to achieve orgasm
 - > Anxiety about sexual performance
 - > Pain during intercourse
- Adversely affecting quality of life
 - > Emotional well being
 - > Relationship with partner



PRESIDE Study

- Largest US study of FSD
- Studied sexual dysfunction in women – included women not in relationships
- Studied distress due to FSD
- 31,581 women from 50,002 households ages >18 yrs were sampled using validated questionnaires
- 43.1% reported any sexual problem
- 12% associate personal distress related to sexual problems
 - > 1 in 8 women aged 45-64 have distress associated with low desire
 - > 1 in 15 women have distress associated with arousal and orgasm difficulty

PRESIDE

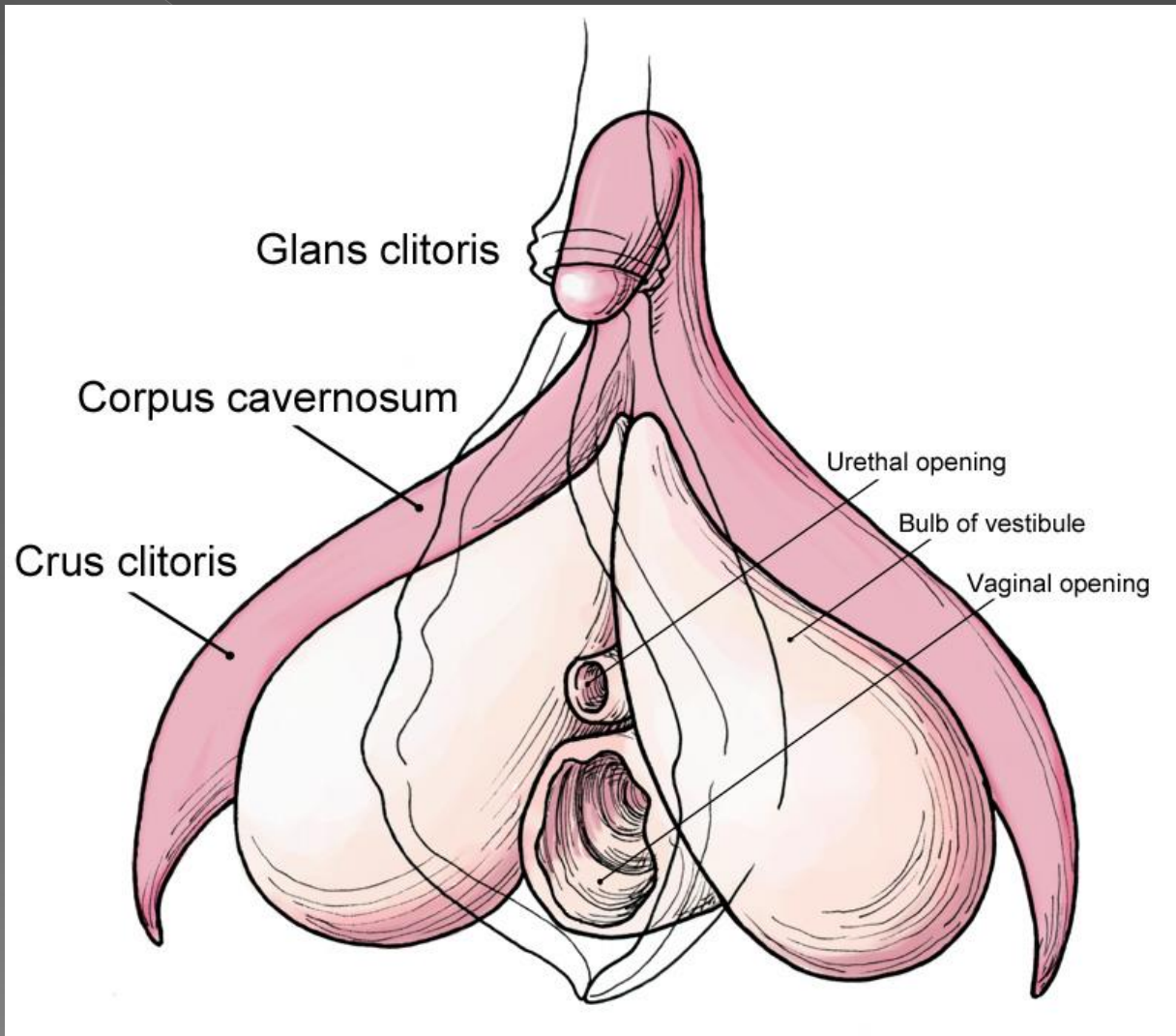
Sexual Complaint	Sexual Problem	Sexual Problem Plus Distress
Desire	38.7%	10.0%
Arousal	26.1%	5.4%
Orgasm	20.5%	4.7%
Any Dysfunction	44.2%	12.0%

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Sexual Mythbusting

- Guided imagery
 - > Virgin
- G spot
 - > Female prostate
- Clitoral vs Vaginal vs Uterine orgasms
- Only men can ejaculate
- You must sound/look like you're having sex like a porn star
 - > Your authentic arousal is not necessary and can/will not be noticed by a male partner
- Genital non-concordance
 - > Lubrication correlates poorly with degree of subjective arousal ([Laan. J Sex Med 2008](#); [Chivers. Arch Sex Behav 2010](#))
 - > Vaginal changes correlate poorly with brain imaging data during visual erotic stimulation ([Amow J Neurosci 2009](#))
- Clitoris is left out of 90% of sex ed models
 - > Anatomic textbooks completely omitted depictions of the clitoris from mid 19th into 20th century
- Foreplay vs Outercourse

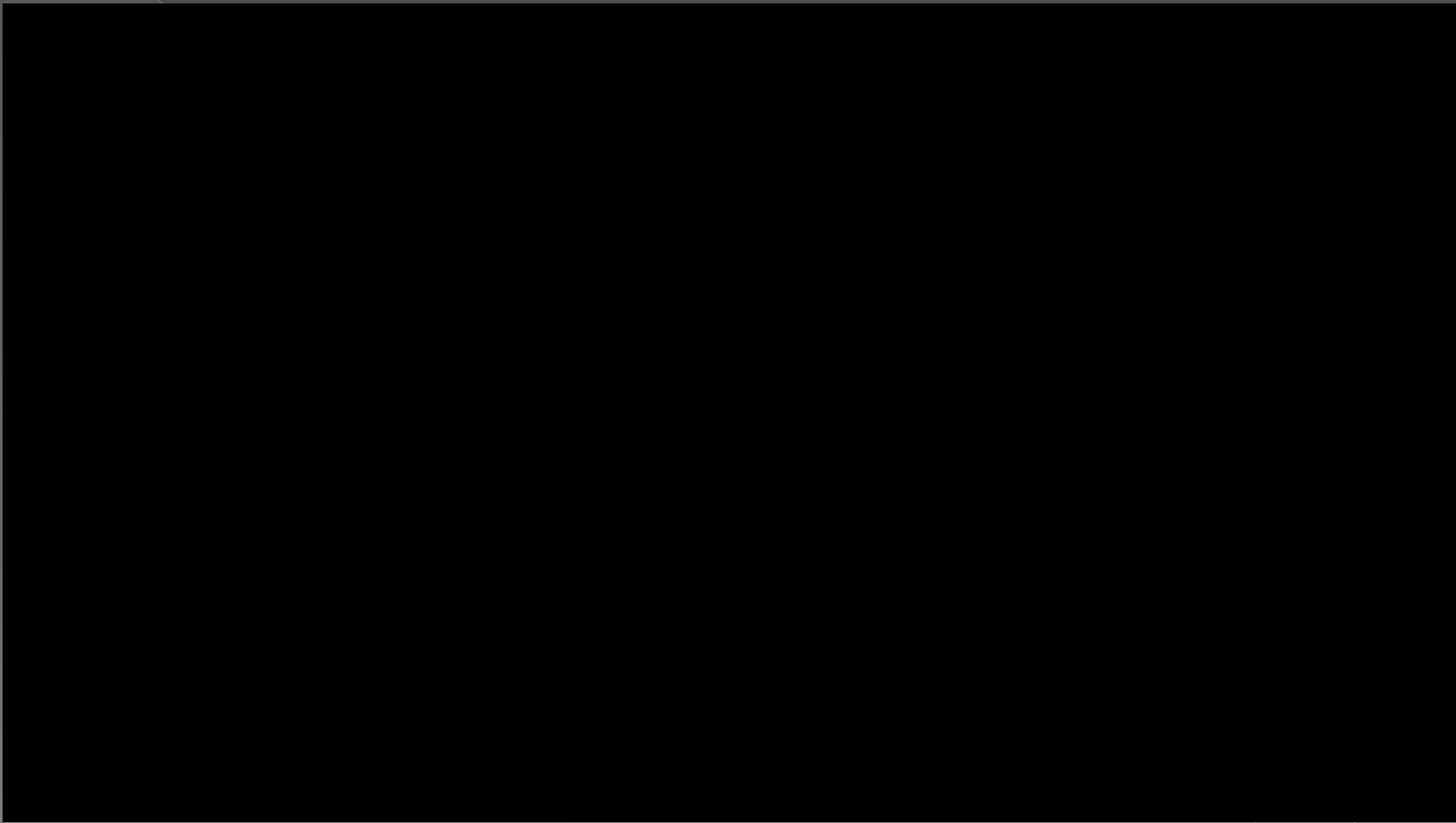


Clitoris

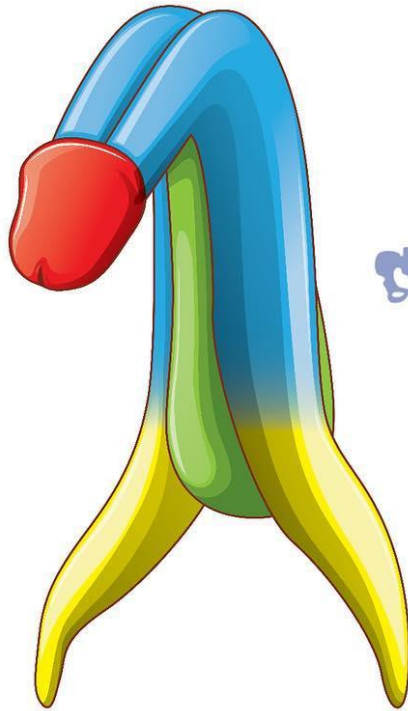
8,000 nerve endings

Penis

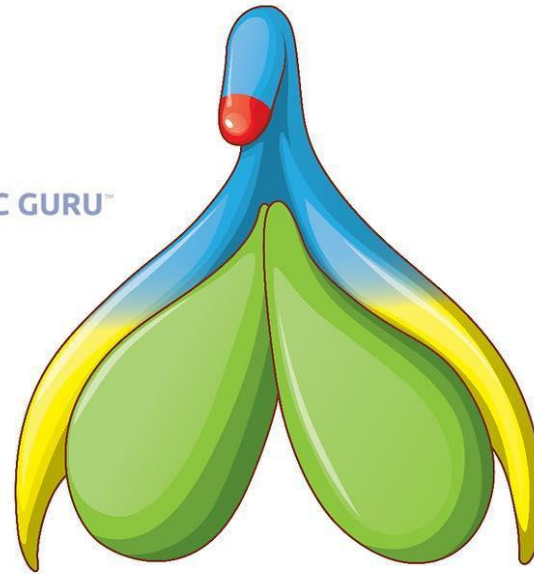
6,000 nerve endings



Penis



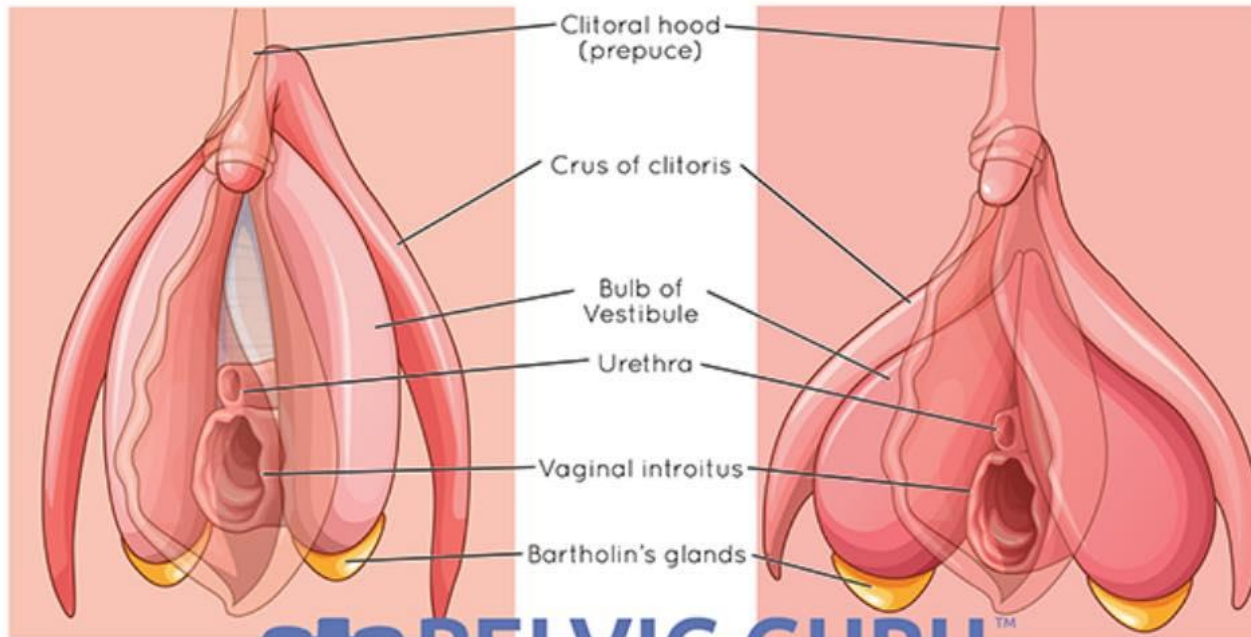
Clitoris



■ Glans / Head ■ Shaft ■ Bulbs ■ Crus

Resting clitoris

Aroused clitoris



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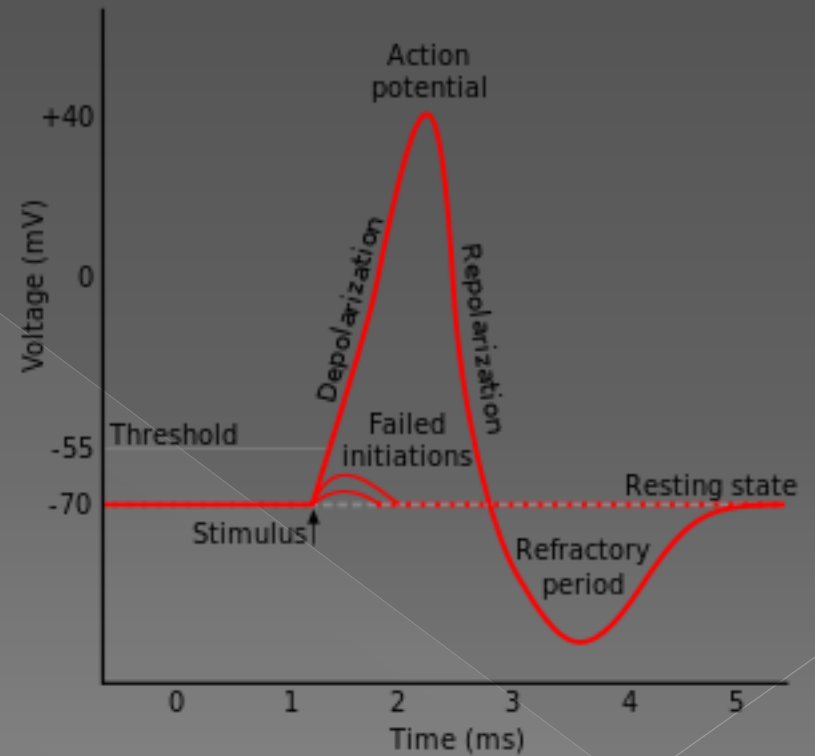
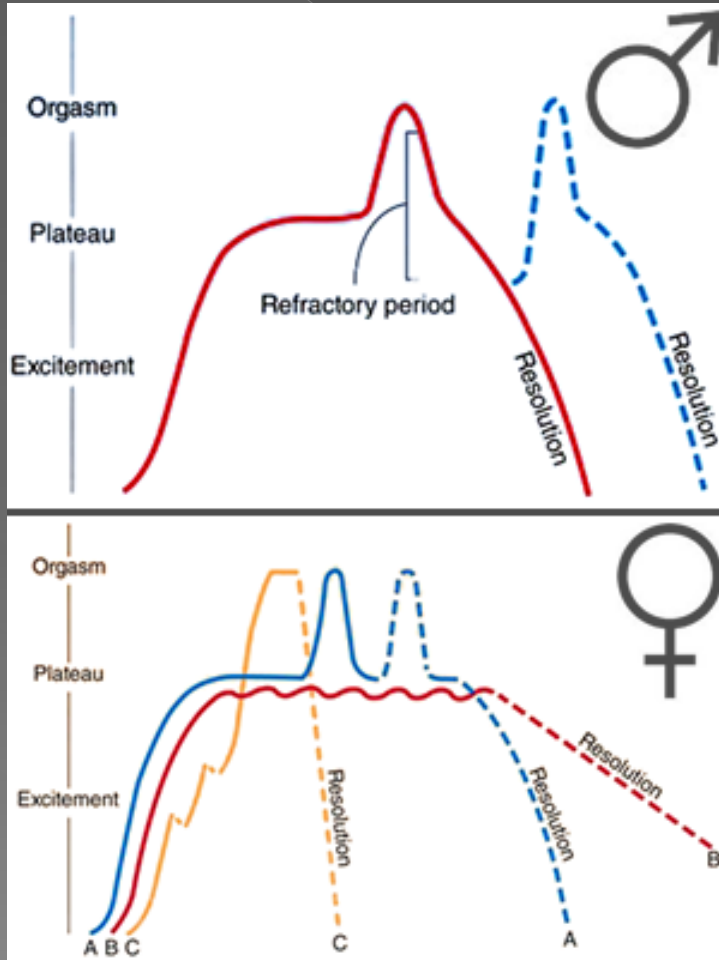
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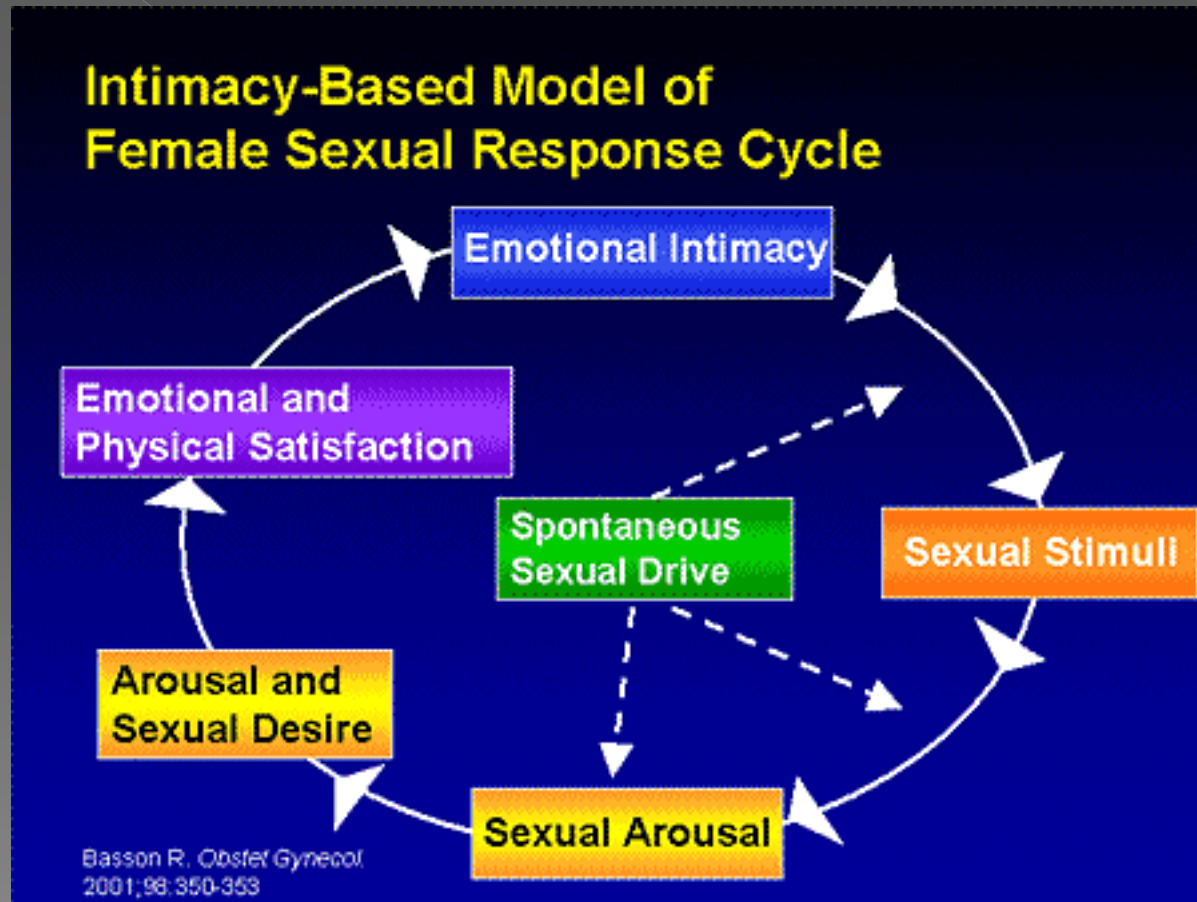
Human Sexual Response Cycle...

- Linear model, little variation/customization, genitally focused, devoid of external triggers/stimuli, both partners start with desire
- Masters and Johnson 1966 – 4 stages
 - > Excitement, plateau, orgasm, resolution
- Helen Singer Kaplan 1979 – 3 stages
 - > Desire, arousal, release

...or Action Potential???



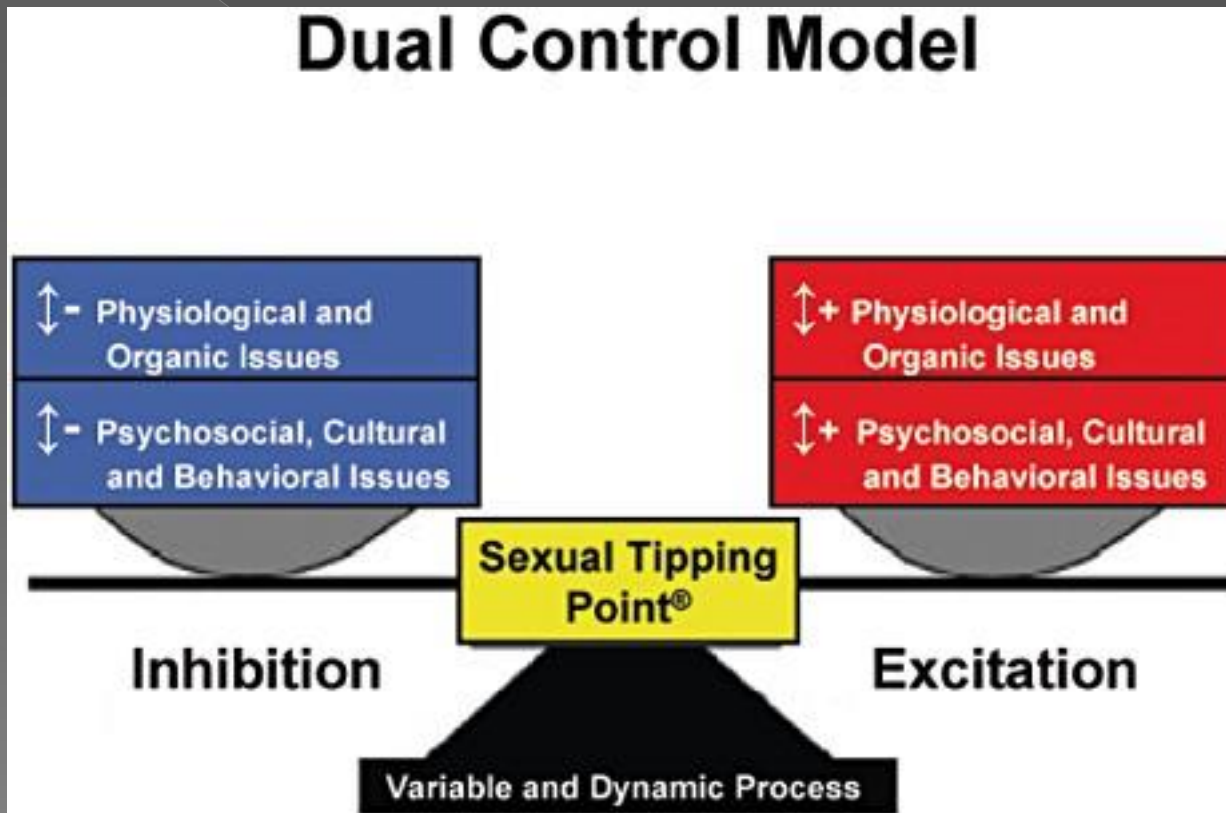
Sexual Response Cycle – Basson



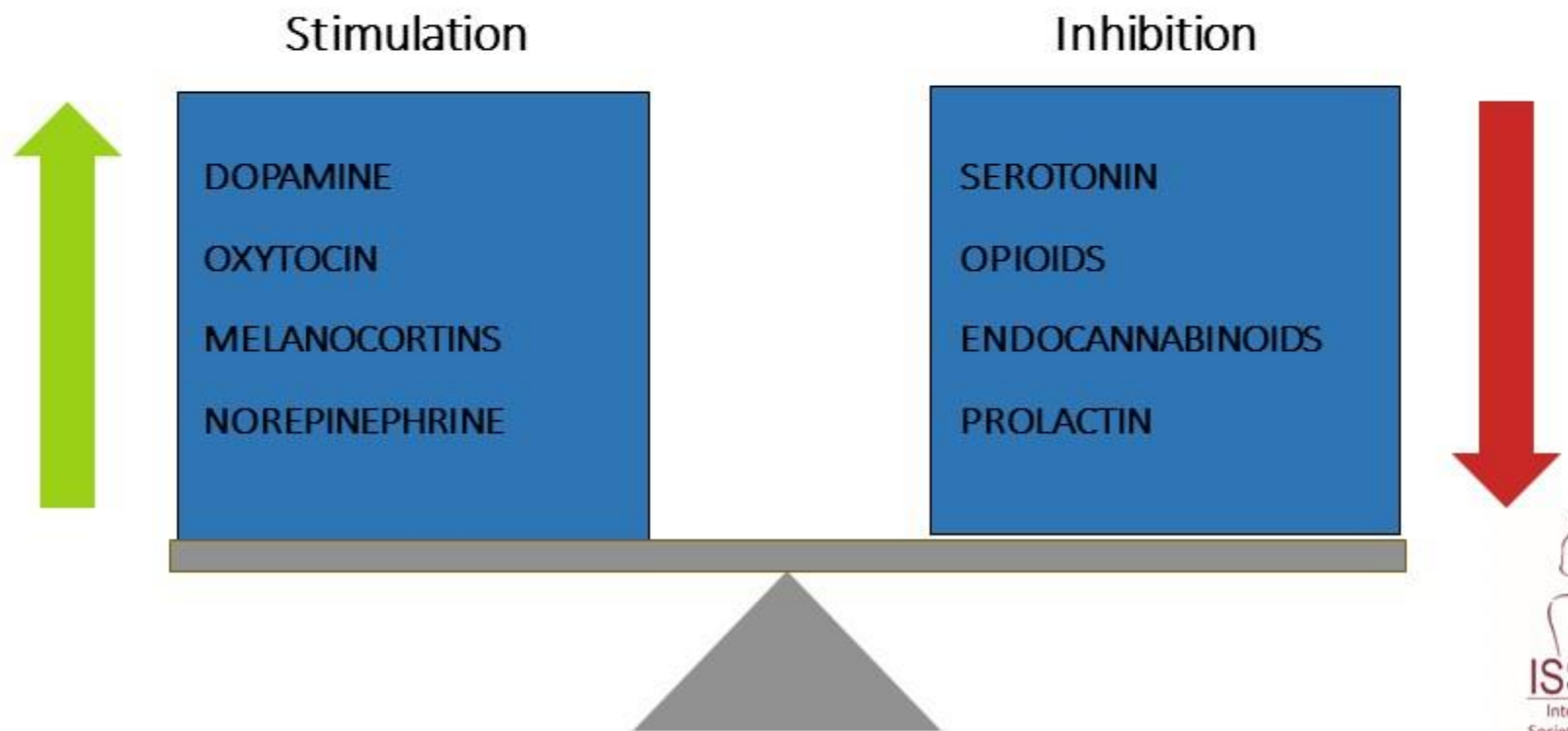
Dual Control Model

*Sexual Excitation System (SES)

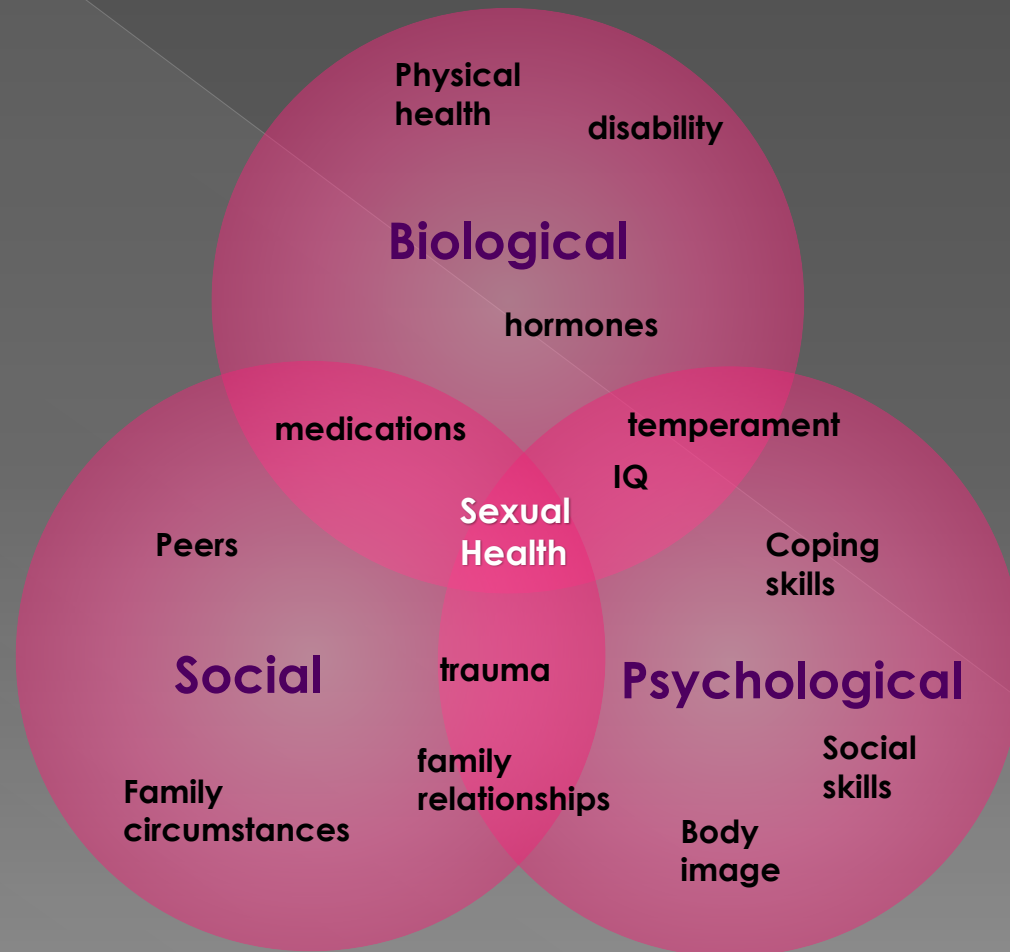
*Sexual Inhibition System (SIS)



The Dual Control Model: Biology



Is female sexual health overmedicalized???? All in the head????



Causes of low sex drive

⦿ Medications:

- > SSRIs
- > TCAs
- > BZDs
- > Antihistamines
- > Narcotics
- > B Blockers
- > Diuretics
- > GnRh agonists
- > Als
- > OCs

Causes of low sex drive

○ **Medical conditions:**

- > Diabetes
- > HTN
- > Depression
- > Musculoskeletal/movement disorders
- > Chronic pain
- > Genital pain
- > Substance abuse
- > Hormonal disruptions

Causes of low sex drive

○ Relational

- > What pattern of communication have we developed?
- > How does lower desire partner respond to the ask?
- > How does higher desire partner initiate?
- > How is pleasure received for both partners?
 - Expected?
 - Added bonus?

Causes of low sex drive

◉ Cultural

- > What messages did we receive growing up – family, school, friends?
- > Religious messages?
- > Western culture places high value on intentionality and hard work

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HSDD

- In a woman is defined as the persistent deficiency or absence of sexual fantasies and desire for sexual activity that causes marked distress or interpersonal difficulty
- Not better accounted for by another Axis I disorder (except another sexual dysfunction) and is not due exclusively to the direct physiological effects of a substance or general medical condition

Post-Orgasmic Illness Disorder

- Characterized by peripheral and/or central aversive symptoms that occur prior to, during, or following orgasm
- *Central*: disorientation, confusion, impaired judgment, decreased verbal memory, anxiety, insomnia, depression, seizures, headache (coital cephalgia)
- *Peripheral*: diarrhea, constipation, muscle aches, abdominal pain, diaphoresis, chills, hot flashes, fatigue, akathisia, genital pain
- May last minutes, hours, or days

Persistent Genital Arousal Disorder (PGAD)

- Persistent or recurrent, unwanted or intrusive, bothersome or distressing, *genital dysesthesia* that is unrelated to sexual interest and may be associated with:
 - > Despair, frustration, emotional lability, catastrophizing thoughts
 - > Co-occurrence of OAB and RLS
 - > Potential pelvic or pudendal neuropathy
 - > Alterations in orgasm (spontaneous, recurrent, aversive, absent, delayed, muted, or not associated with pleasure or satisfaction)
 - > Limited or no resolution of symptoms, even aggravation, with orgasm

Genital/Sexual Pain Disorders

- ◉ Genitourinary Syndrome of Menopause
- ◉ Vestibulodynia
 - > Hormonally mediated, inflammatory, neuroproliferative, pudendal neuralgia, PGAD
- ◉ Vulvar dystrophies
 - > Lichen planus, lichen sclerosus, lichen simplex chronicus
- ◉ Endometriosis/IC
- ◉ Allergic dermatitis/seminal plasma allergy
- ◉ Pelvic floor dysfunction!!!
 - > Overactive pelvic floor

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Why is it difficult for providers to bring up sexual function and satisfaction in patient history taking?

- ◉ Time
- ◉ Lack of knowledge/training
- ◉ Fear of effects – embarrassment, intentions being misunderstood or seen as inappropriate, arousal
- ◉ Lack of known resources
- ◉ Coverage/payment concerns

Why is it difficult for patients to ask their questions?

- Fear of embarrassment
- Fear of judgment
- Social norms/expectations
- Already asked another provider and told problem was “normal”
- Coverage/payment concerns
- Intake forms – already made them uncomfortable?

PLISSIT

- ◉ **P**ermission
- ◉ **L**imited
- ◉ **I**nformation
- ◉ **S**pecific
- ◉ **S**uggestions
- ◉ **I**ntensive
- ◉ **T**herapy

Evaluation

- Ubiquity style
 - > Many people (after menopause, your age, after a baby, who are breastfeeding...) experience changes in their sexuality. Is this anything you would like to discuss today?
- Use informal words
 - > Dryness vs lubrication
 - > Meet them at their level (mimic their wording)
- Always ask what their goal is for the visit

Sexual History taking

- ◉ Sexual activity – penetrative sex, oral sex, anal sex, genital touching
- ◉ Sexual fantasies
- ◉ Sexual orientation– men, women, neither, both
- ◉ Sexual fetishes
- ◉ Contraception

Sexual History

- Life Changes in the past year
 - > Move
 - > Partner change
 - > Pregnancy
 - > Loss (partner, friend, family, job)
 - > Global pandemic

Work-up

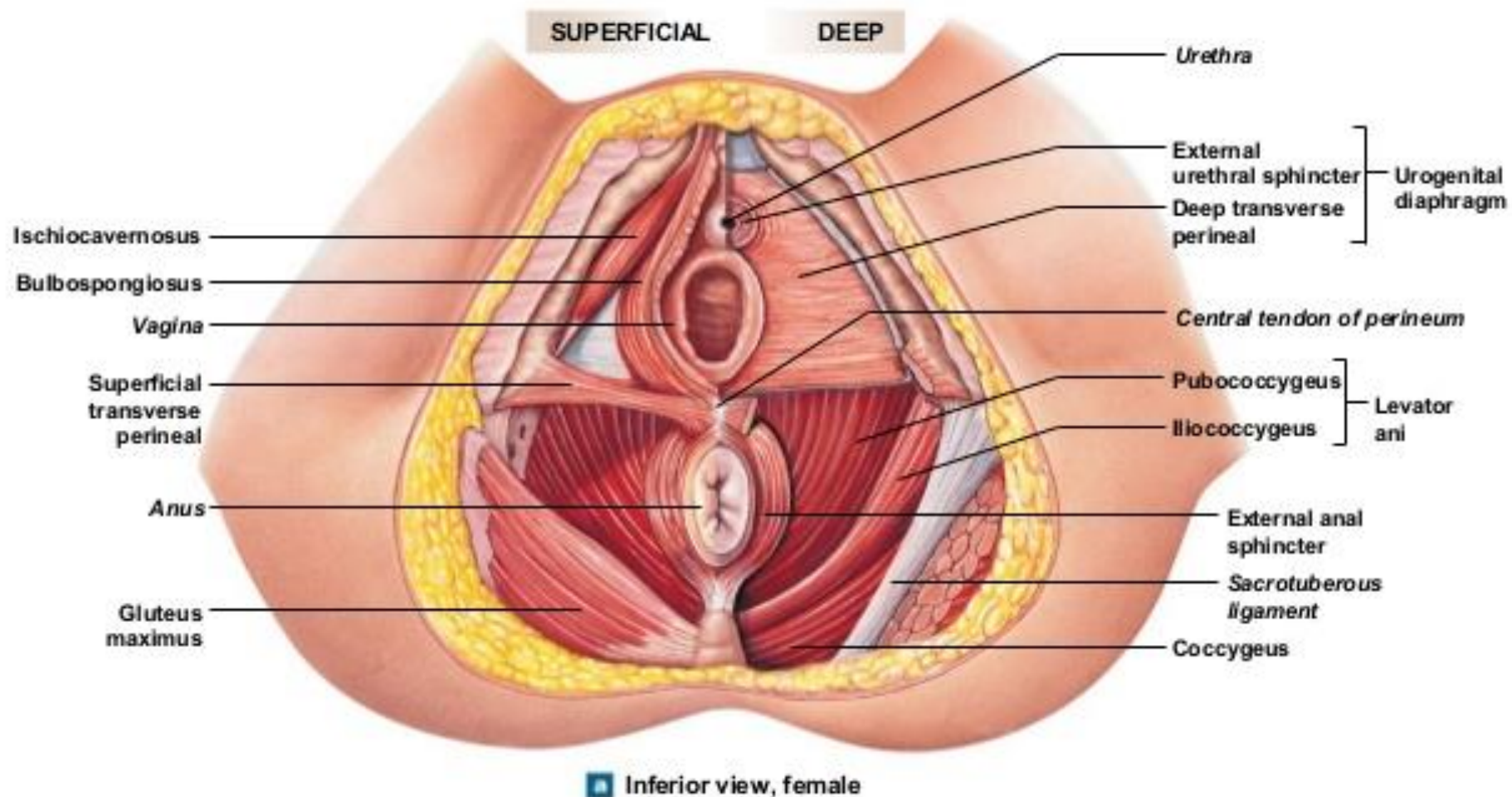
◉ Labs

- > Hormone levels (not always necessary)
 - TSH, FSH, estradiol, total testosterone, SHBG

◉ Vulvovaginal exam

- > Don't forget the vulva and the vestibule!!!
- > Vulvoscopy
- > Q-tip test
- > Vaginal pH
- > Evaluate periurethral tissue
- > Pelvic floor muscles

Figure 10.13a Muscles of the Pelvic Floor




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Specific Suggestions

- Counsel to your comfort
- Use specifics
 - > Date night
 - > Small touches
 - > Self stim
 - > Exercise/diet/body image
 - > Lubricants
 - > Moisturizers
 - > Dilators
 - > Toys
 - > Sensate focus
 - > Text resources
- Know your local referral resources
 - > “I understand this is a big problem for you, in fact for many women/people. I know just the person who can help you find the answers you need.”

Lubricants

- Lubes are a shifting landscape
 - > FDA is registering them as a class 2 medical device
- Water based with and w/o glycerin
- Silicone
- Gel
- Hybrid
- Cream
- pH ranges from 4.0-7.0
- Counsel regarding use with condoms and with toys
 - > No oil based
 - >  Silicone with silicone toys
- Caution with “warming” or “zesty” lubricants

Moisturizers

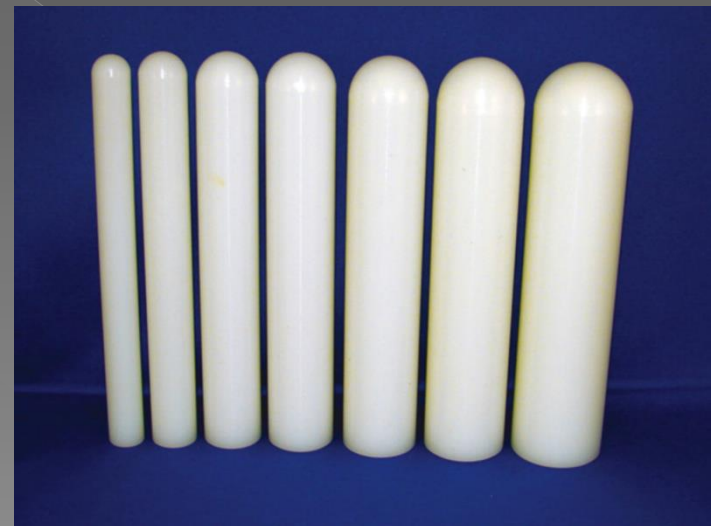
- Not to be used as lubricant prior to penetration
- Used as a lotion
- 2-3 times a week
- Cancer survivors will likely need 4-5 times/wk
- Lubrigyn - moisturizer
- Replens – FDA approved
- Hyalogyn – moisturizer
- Revaree – hyaluronic acid

Dilators



Diameter	Diameter	Diameter	Diameter	Diameter	Diameter
up to .6" (15mm)	up to .88" (22mm)	up to 1.04" (26mm)	up to 1.19" (30mm)	up to 1.35" (34mm)	up to 1.5" (38mm)
Length	Length	Length	Length	Length	Length
3.48" (88mm)	3.97" (101mm)	4.46" (113mm)	4.95" (126mm)	5.45" (138mm)	5.96" (151mm)

Universal handle fits all sizes



Medications – On-but - mostly-off-label

○ Flibanserin (Addyi)

- > Approved 8/2015
- > 5-HT1A agonist
- > 5-HT2A antagonist
- > Weak partial Dopamine D4 receptor agonist
- > Contraindications
 - Alcohol CI was finally removed 9/2019!!!
 - Studied in 25 people, 23 men
 - 2-4 beers/glasses of wine over 10 min after light breakfast
 - 4 had hypotension or syncope with standing
 - Moderate to strong CYP450 3A4 inhibitors
 - Hepatic impairment
- > REMS program – removed need to certify 9/19



Bremelanotide (Vyleesi)

- Approved 6/2019
- on demand subQ injection
 - > >45 minutes prior to sexual activity
 - > Up to 8 per month
- Melanocortin agonist
 - > MC1R expressed on melanocytes
 - > MC4R expressed in CNS
- Side effects: nausea, flushing, headache, vomiting, hot flush
- Potential for transient increase in BP
- CI: Uncontrolled HTN, pregnancy
- Caution hyperpigmentation risk



Off label additions for SSRI related dysfunction

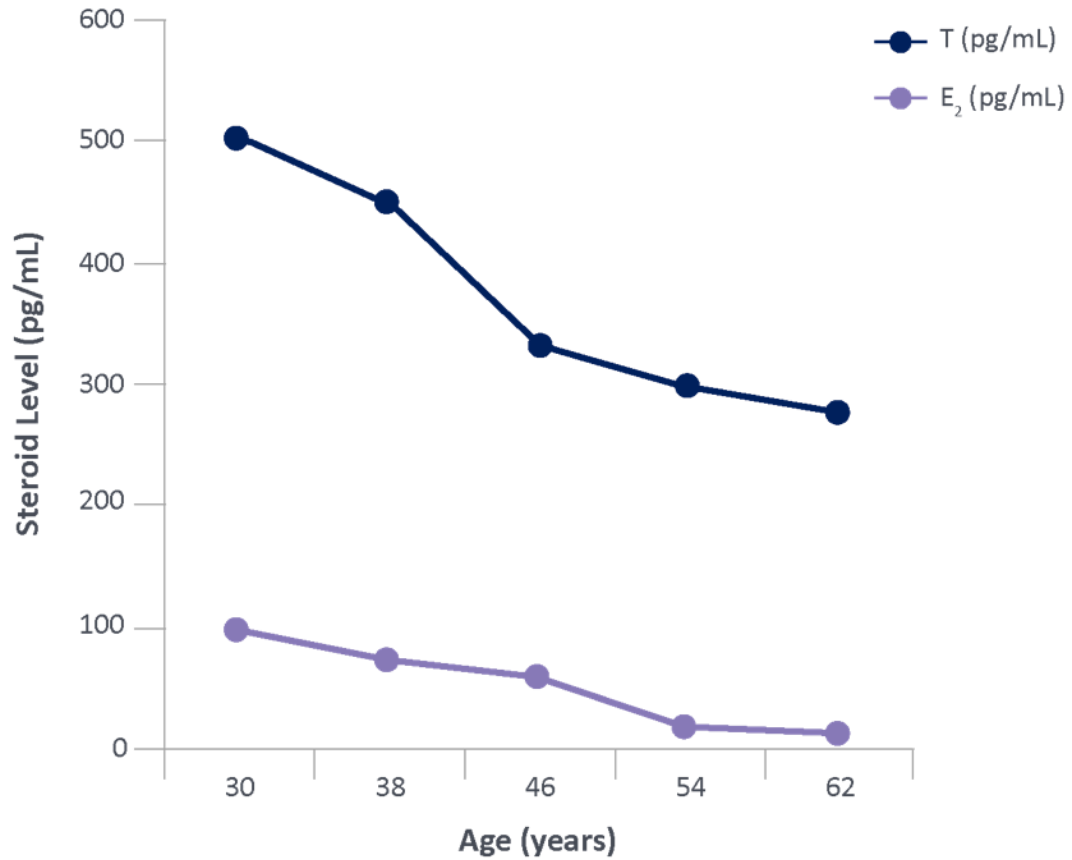
- Bupropion
 - > Consider adding for SSRI related dysfunction
 - > 5-HT_{2A} antagonist, moderate 5-HT_{1A} partial agonist
 - > Excitatory
- Buspirone and Trazadone
 - > Also 5-HT_{1A} agonist (prosexual side effects)
 - > Trazadone is Norepinephrine and dopamine reuptake inhibitor
 - inhibitory
- Sildenafil
 - > Blockade of PDE5 – relaxation of smooth muscles in arterial walls and increases blood flow to clitoris

Relative Frequency of Sexual Dysfunction by Drug

Drug	Sexual Desire	Sexual Arousal	Orgasm
Bupropion	+	+	+
Citalopram	+++	+++	+++
Fluoxetine	+++	++	+++
Fluvoxamine	+++	++	+++
Mirtazapine	++	++	++
Nefazodone	+	+	+
Paroxetine	+++	+++	+++
Sertraline	+++	+++	+++
Venlafexine	+++	+++	+++
Vilazodone	+	+	+

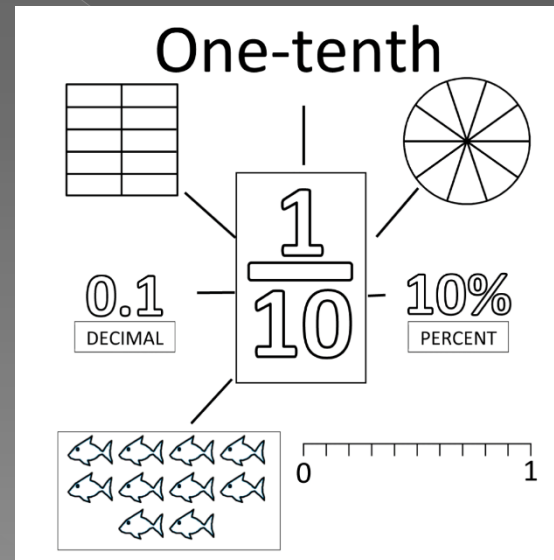
+ <10% frequency or <5% relative to placebo; ++ 10-25% frequency; +++ >25% frequency

Role of Hormones



● Testosterone

- > Not FDA approved YET for women
- > Counsel regarding potential androgenic SEs
- > Used in women for > 80 yrs
- > Oral, Transdermal, IM Injections, Pellets, Troche
- > 1/10 male dose



Key Messages for Testosterone Use per ISSWSH

Global Consensus Position Statement on the Use of Testosterone Therapy for Women

- > Only evidence-based indication for testosterone therapy for women is for treatment of HSDD
- > Data supports moderate therapeutic effect in postmenopausal women
- > Meta-analysis shows no severe adverse events during physiological testosterone use, with the caveat that women at high cardiometabolic risk were excluded from study populations
- > Safety of long-term testosterone therapy has not been established
- > A blood total testosterone level should not be used to diagnose HSDD

Key Messages for Testosterone Use per ISSWSH

- > Transdermal treatment provides the most physiological form of replacement therapy for women
- > Recommendations do not apply to injectables, pellets, or formulations that result in supraphysiologic blood concentrations of testosterone, or compounded preparations
- > Normal premenopausal range can be achieved with delivery of ~ 1/10 a standard male dose or about 300 mcg/day prescribed off label with informed consent
- > Additional testing may be required in certain cases where androgen excess is suspected, or to assess a failure to respond to typical testosterone treatment

Testosterone Clinical and Lab Monitoring

- Baseline testosterone level with repeat 3-6 weeks
- Total testosterone level every 6 months
- Annual breast and pelvic exams
- Annual mammography
- Eval of AUB
- Eval for acne, hirsutism, androgenic alopecia, voice changes, clitoromegaly
- Goal: not to exceed normal range for reproductive-aged women
- Lipid profile, LFTs, CBC – baseline, 6 months, annually
- Use for 6 months contingent on clear improvement and absence of AEs

Sensate Focus

- Developed by Masters and Johnson in the '60s
- Formed the foundation of sex therapy
- Touch exercises
 - For one's own pleasure without regard to physical or sexual arousal
- Modified in the '80s to touch for whatever sensations they experienced
 - Temperature
 - Texture of the skin and hair
 - Variations in feelings of pressure
- No expectations
- Assignment is to focus on sensation

Sensate Focus

- Therapeutic technique
- Provides diagnostic information
- Individually or with partner
- Increase body awareness and comfort
- Build trust and emotional closeness
- Slow down sexual interaction for the partner who may need it
- Increase sexual desire

Sex Therapy

- Goal – teach people how to get their conscious, goal-oriented mind out of the way and return sex to its natural state
- Sex ed for grown-ups
- Discuss vulnerability
- Improving sense of physical intimacy helps neutralize the small irritations that happen outside the bedroom

Team Approach

- Physician/PA/NP – gynecologist, urogynecologist, internist, oncologist
- Sex therapist/sex counselor
 - > AASECT
- Pelvic floor physical therapist
 - > Herman Wallace Institute
- Psychiatrist/psychologist
- Eastern Medicine practitioners

What's on the Horizon?

Drug Name	Drug Category	Pharma Sponsor	Current Status
Lybrido (on demand oral tablet)	sildenafil + testosterone	Emotional Brain	Phase III for HSDD
Lybridos (on demand oral tablet)	bupropion + testosterone	Emotional Brain	Phase III for HSDD
Tefina (intranasal testosterone gel)	testosterone	Trimel Pharmaceuticals	Phase II complete for anorgasmia
Lorexys (daily oral combo)	bupropion + trazodone	S1 Biopharma	Completed Phase IIa for HSDD

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Resources

- AASECT
 - > aasect.org
- North American Menopause Society
 - > menopause.org
- International Society for the Study of Women's Sexual Health
 - > isswsh.org
- International Pelvic Pain Society
 - > pelvicpain.org
- International Society for the Study of Vulvar Disease
 - > issvd.org
- Herman & Wallace
 - > hermanwallace.com
- Women's Health Collective
 - > www.whcollective.com
- Middlesex MD
 - > Middlesexmd.com

Questions/Comments?