# Medical treatment in female sexual dysfunction

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## The principal predictors of sexual satisfaction are physical and mental health

the quality of the relationship with the partner.

so the focus of therapy should be on interventions that;

optimize health well-being

the partner relationship.

#### MAKING A TREATMENT PLAN

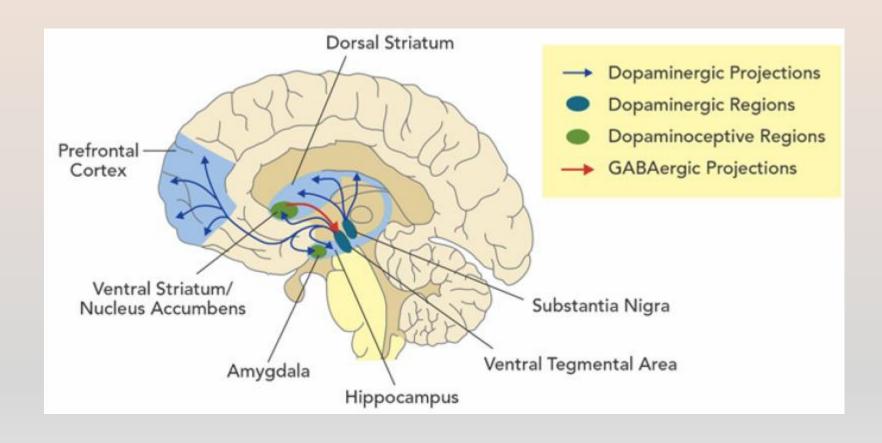
- As all currently available pharmacologic therapies for female sexual dysfunction are of;
- limited efficacy
- associated with side effects and potential risks
- non-pharmacologic options should comprise the initial treatment for most women.

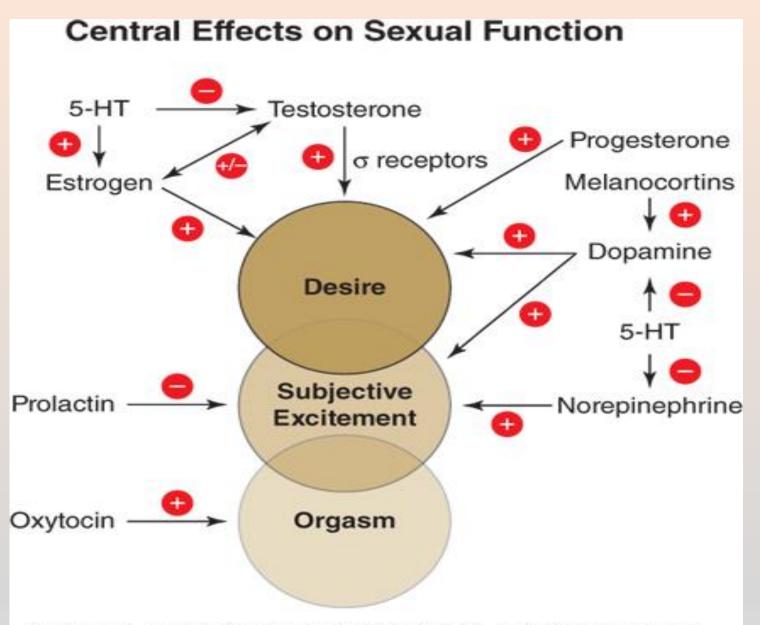
• Circulating levels of sex steroids (estrogen, testosterone, progesterone), and their metabolites play a fundamental role in linking sexuality to reproduction.

 They target every tissue involved in the central and peripheral sexual response across the life span of women, and their effects become particularly evident when deprivation of sex steroids occurs

- Sex hormones, specifically
- Androgens
- estrogens
- progestins
- are also thought to affect female sexual interest and function, but there is still some uncertainty as to which hormones are most important.
- Estrogens and androgens govern

 CNS circuitries are major targets for sex steroids and mediate instinctual, emotional, and behavioral components of sexual response and suppressors.

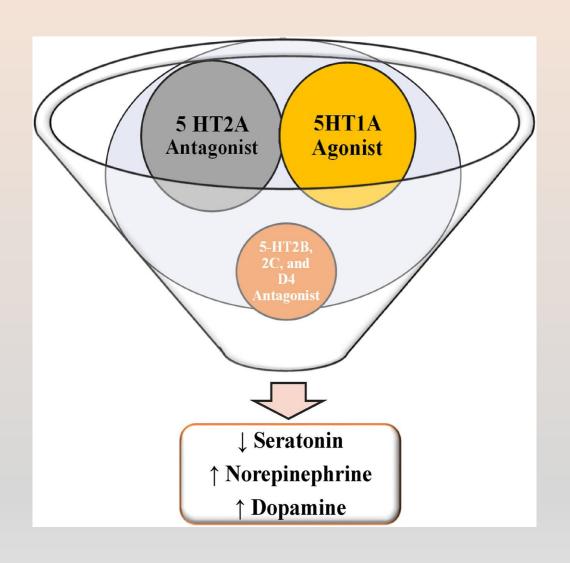




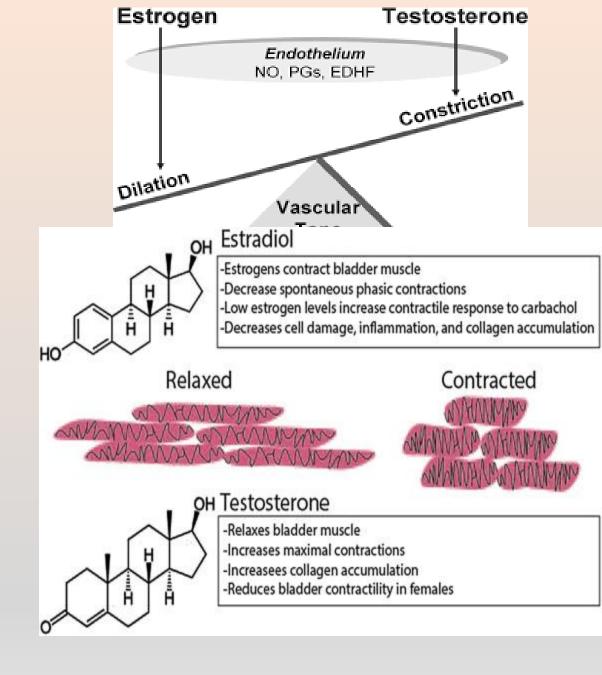
Source: J.B. Halter, J.G. Ouslander, S. Studenski, K.P. High, S. Asthana, M.A. Supiano, C. Ritchie, W.R. Hazzard, N.F. Woolard: Hazzard's Geriatric Medicine and Gerontology, Seventh Edition, www.accessmedicine.com Copyright © McGraw-Hill Education. All rights reserved.

the neuroendocrine balance of excitatory (dopamine, noradrenaline, and melanocortin receptors [MC3R MC4R])

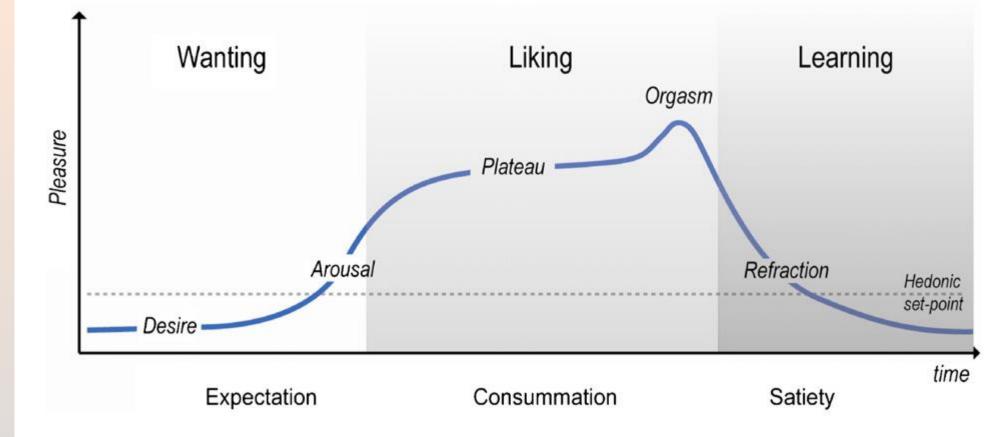
inhibitory (serotonin, the endocannabinoid, and opioid systems) signals modulating sexual desire, arousal, orgasm, and satisfaction are under the influence of the hormonal milieu along with other biopsychosocial inciters and suppressors



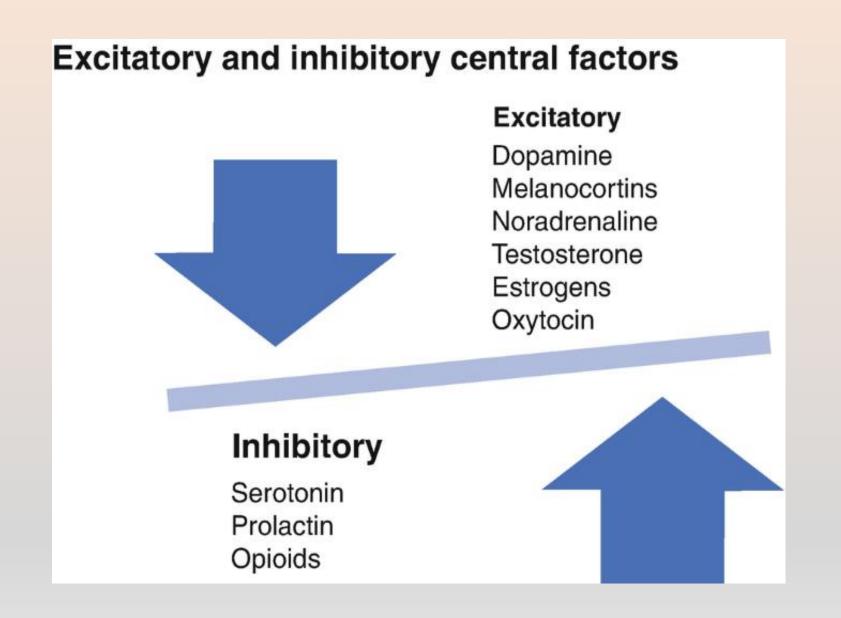
- The neurovascular/neuromuscular system is also influenced by sex steroids, which interplay with adrenergic, cholinergic and nonadrenergic, and noncholinergic neurotransmitters and other vasoactive substances, such as vasointestinal peptide and nitric oxide (NO)
- Coupled to the trophic effect of both estrogens and androgens on urogenital tissues, this array of molecules regulate genital vasocongestion, vaginal lubrication, and clitoral engorgement, as well as pelvic floor function which is



### Sexual response



- ♦ The initial phase of the human sexual response is libido, or desire, linked to satisfaction with sex, prominently controlled by dopamine.
- ♦ Next comes arousal of genital tissues, resulting in erections in men and genital lubrication and swelling in women, controlled by acetylcholine and nitric oxide.
- ♦ Finally, orgasm, accompanied by ejaculation in men, is regulated by serotonin and norepinephrine



 The bio-psycho-social focus of interventions has been viewed as the best approach to this pivotal clinical entity.

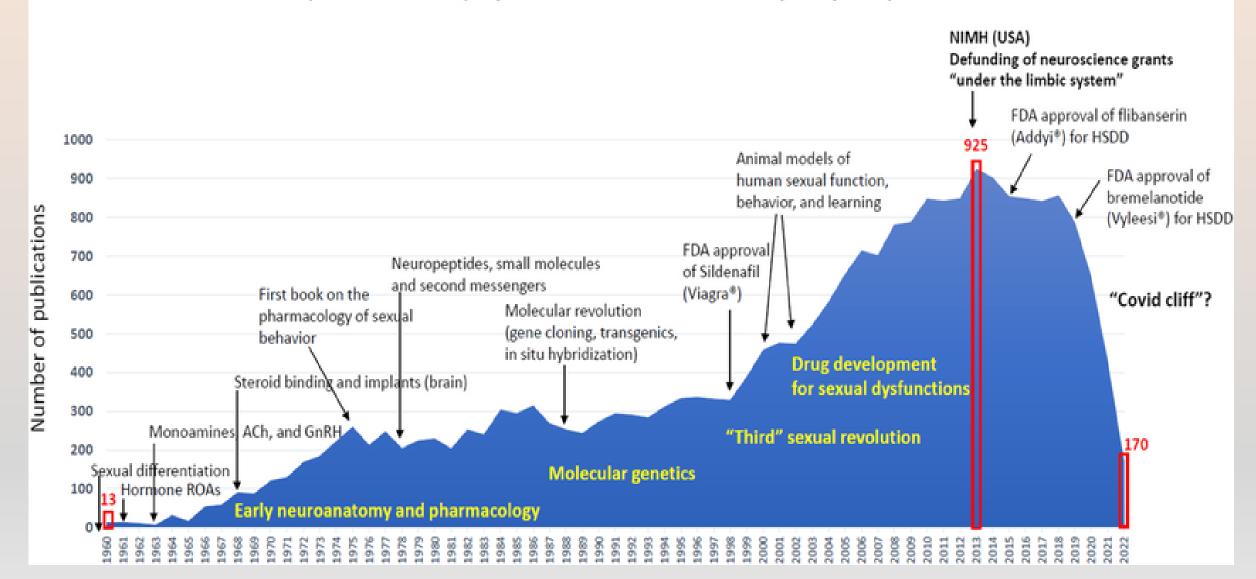
 Managing women with the problem related to sexual desire, sometimes referred to as hypoactive sexual desire disorder (HSDD) as part of the FSD, is a great challenge for many clinician

### desire

- asubjective feeling triggered by either external or internal stimuli
- that might lean individuals toward or away from sexual behavior.
- either with oneself or with a partner.
- Finally, sexual desire is thought to be multidetermined and biopsychosocial but to be particularly bound by relational and contextual aspects in women
- it might not only be used for sexual pleasure but also for closeness, power, or relaxation only

## "Pharmacology AND sexual behavior" x "Year"

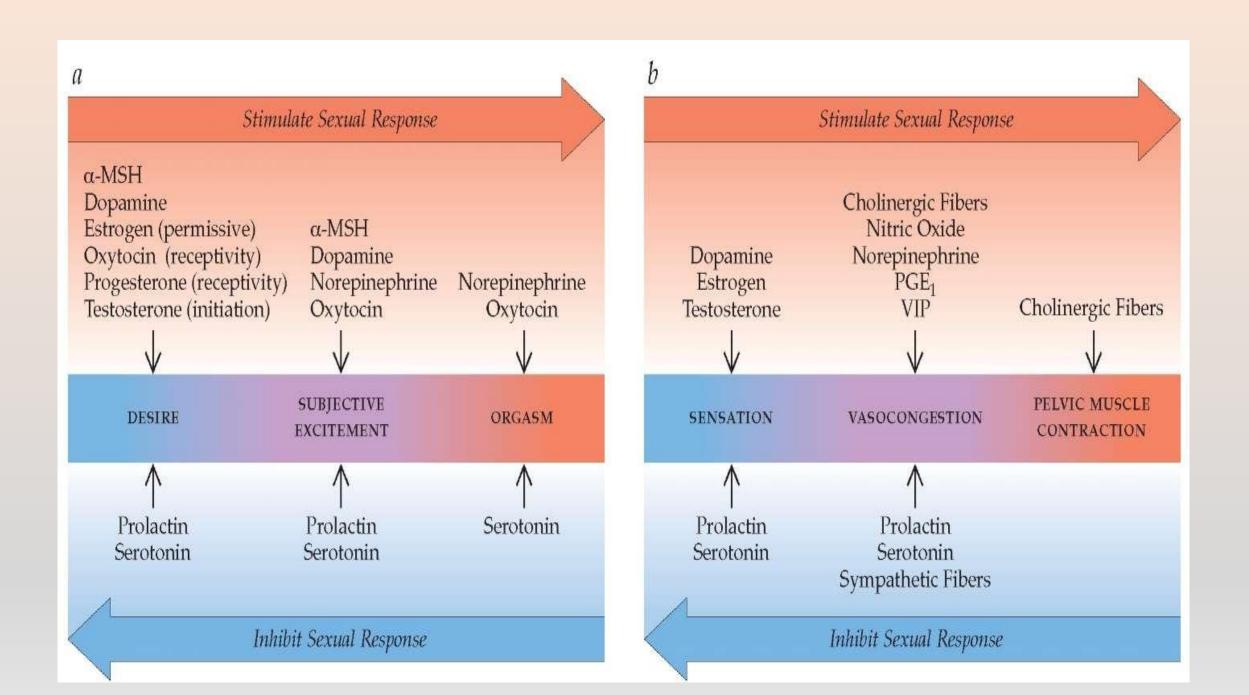
(Number of papers cited in PubMed per year)



• the lack of, or significantly reduced, sexual interest/arousal in almost all sexual encounters and the unreceptiveness to partner's attempts to initiate sexual activity according to the DSM-5. the HSDD

 The excitatory pathway is based on the activation of neurotransmitters such as dopamine, noradrenaline, oxytocin, vasopressin, and melanocortins.

Conversely, the inhibitory pathway involves opioids and serotonin



- There are few medical treatments available for the treatment of HSDD in women.
- Flibanserin and bremelanotide are the only Food and Drug Administration approved medications to treat premenopausal women with generalized acquired HSDD in the USA
- never been approved in Europe.



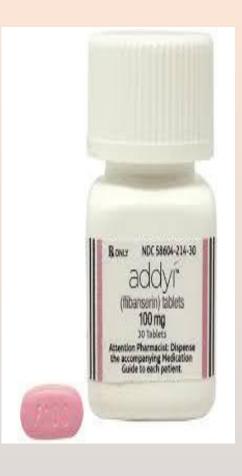
- serotonin 1A receptor agonist (5-hydroxytryptamine [5-HT]1A)
- a 5-HT2A serotonin receptor antagonist.

- In women with HSDD, flibanserin taken daily works to rebalance excitatory activity driven by desire and arousal
- well tolerated, to improve sexual desire, to reduce sexual distress in premenopausal women

100 mg daily at bedtime

transient decreases in <u>serotonin and increases in</u> <u>dopamine and norepinephrine in certain regions of the brain</u>.

 modest increases in the frequency of sexually satisfying ,sexual desire in women with low sexual desire that is associated with distress



- Dosing
- adverse effects in morning such as;
- hypotension, syncope, <u>accidental injury</u>, and depression).

- Potentially serious side effects include;
- low blood pressure, sleepiness, nausea, fatigue, dizziness and fainting, particularly if the drug is mixed with alcohol.

 Experts recommend that you stop taking the drug if you don't notice an improvement in your sex drive after eight weeks.

• If a dose is missed, it should be taken at bedtime the following day. Rather, do not double the dose.

- lack of safety data regarding combining flibanserin with
- alcohol or certain medications (eg, <u>fluconazole</u>, antidepressants

#### Bremelanotide

- , the first melanocortin receptor agonist (a 7 amino acid peptide), was approved by the FDA for treating hypoactive sexual desire disorder (HSDD) in premenopausal women
- As a second drug, bremelanotide shows an improvement over the first medication <u>flibanserin</u>.

 This drug was originally reported as an <u>active</u> metabolite of <u>melanotan II</u>.

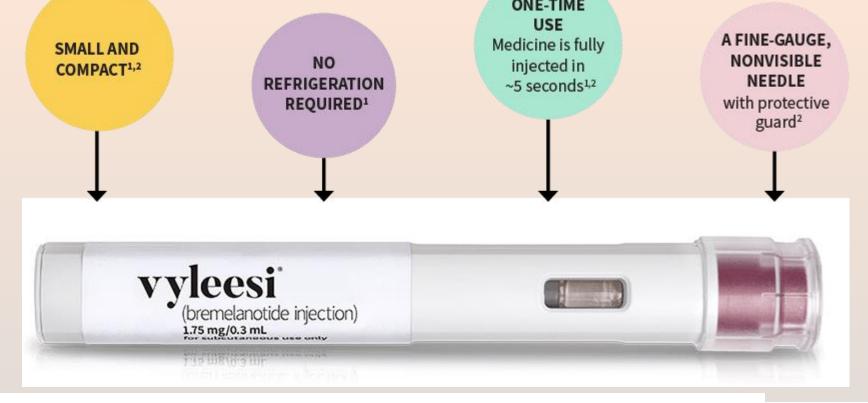
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### Bremelanotide (Vyleesi®)



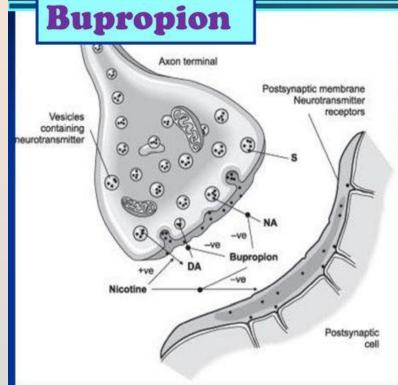
- is a melanocortin type 4 receptor dopaminergic agonist working in the hypothalamic center to stimulate sexual desire and arousal on demand.
- It consists of a 1.75 mg subcutaneous injection applied 45 min before sexual activity for premenopausal women with acquired, generalized HSDD

- Its most common adverse effect
- nausea, experienced by 40% of patients, representing a crucial limitation despite 35% of the patients treated with bremelanotide had a decrease in their distress score with HSDD



- Bremelanotide is safe and has limited drug-drug interactions, including no clinically significant interactions with <u>ethanol</u>.
- Prescribing guidelines recommend no more than 1 dose in 24 hours and no more than 8 doses per month.
   Individuals should discontinue use after 8 weeks without benefit

## 4. Norepinephrine and Dopamine Reuptake Inhibitor (NDRI)



Is unique in possessing significant potency as NE and DA reuptake inhibitor, with no direct action on 5HT.

#### Therapeutic uses:

- 1- Treatment of major depression.
- 2- Can be used for smoking cessation.

As it reduces the severity of nicotine craving & withdrawal symptoms

Advantages: No sexual dysfunction → given in young (combination with SSRIs to avoid sexual dysfunction)

No weight gain [ No 5HT effect ] No orthostatic hypotension.

Side effects: Seizures; it 

threshold of neuronal firing

### bupropion

- bupropion has been used in the treatment of FSD, particularly for <u>orgasmic dysfunction in non-depressed individuals</u>.
- Regarding bupropion, this agent is the only antidepressant without serotonergic activity and has a dual effect on dopamine and norepinephrine neurotransmitter systems.

 It was initially developed to improve the tolerability and safety of the existing antidepressants



### bupropion

- patients with SSRI induced sexual dysfunction were assessed; patients taking 150 mg/day bupropion were compared with 117 patients taking placebo
- .Twelve weeks later, sexual dysfunction levels in the bupropion treatment group significantly decreased

### Lorexys®

- is a combination of the <u>antidepressants bupropion (a dopamine/norepinephrine reuptake inhibitor)</u>
- and trazodone (a serotonergic agonist antagonist),

- a decrease in sexual distress
- adverse effects such as dry mouth, somnolence, headache, and dizziness

### <u>sildenafil</u>

 positive effects of on sexual arousal and orgasm in premenopausal women with (SSRI)-associated FSD

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 did not impact sexual desire and had no effect on hormone levels or measures of depression.





### **SILDENAFIL**

- Topical sildenafil cream 3.6% (sildenafil cream) has been developed for the treatment of female sexual arousal disorder.
- sildenafil citrate topically;
- a fast-absorbing delivery technology specifically targeting genital anatomy central to the vascular arousal response
- less systemic exposure
- fewer systemic side effects,
- a more immediate biological efficacy response

### **SILDENAFIL**

- Topical sildenafil cream improved outcomes among women with female sexual arousal disorder
- most significantly in those who did not have concomitant orgasmic dysfunction.
- topical sildenafil cream increased sexual arousal sensation, desire, and orgasm and reduced sexual distress

## **TESTOSTERONE**

 positive association between testosterone circulating levels and sexual desire/global sexual function, despite arguing that more research is needed.

 post-menopausal women with low desire may benefit from a trial of systemic testosterone. (The most recent ISSWSH consensus panel suggests)

- Despite the evidence of testosterone therapy's efficacy and short-term safety, it
  is important to note that testosterone treatment is off-label
- currently no pharmaceutical formulations made for female doses or application

#### testosterone

prescribe it when

- peri/postmenopausal woman
- low libido associated with distress
- physically and psychologically healthy
- a good sexual relationship.
   used to treat issues with sexual desire
   generally improve, arousal and orgasmic response

 Transdermal testosterone increases the frequency of sexual desire and sexually satisfyin activity in both naturally and surgically menopausal women with HSDD and decreases personal distress.

 Adjuvant estrogen might not be needed. The evidence is high for shortterm use of TDT but less clear for long-term use. Large clinical trials with a longer treatment duration are needed to confirm the long-term efficacy and safety profile of TDT.

- Levels of androgens do not predict sexual function for women;
- androgen therapy:
- increases in serum concentrations to the upper limit of normal has been shown to improve female sexual function in selected populations of postmenopausal

## **TESTOSTERONE**

- The Endocrine Society recommends a trial of testosterone therapy for 3–6 months in postmenopausal women with low androgen levels that are comfortable with off-label use and close monitoring.
- systemic testosterone therapy improved desire and reduced distress in women with low desire.
- 2017 meta-analysis of postmenopausal women with low desire treated with systemic testosterone (n=3035) demonstrated statistically significant improvements in sexual desire, orgasm, and sexually satisfying events.

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Testosterone levels have been correlated with solitary desire, which is thought to be a "true" measure of desire

# Testosterone Replacement Therapy in Women

- Women produce 10% T as compared to men
- □ T needed for sense of well being
- ☐ Strength especially upper body
- ☐ Increased Libido & sensitivity
- T usually decreased in perimenopausal and menopausal women
- Body composition reduce fat, increase lean mass
- Bone density

# Testestron undecoanat

- Side effects
- Major & minor side effects for Testosterone Undecanoate 40 mg Capsule
- Enlargement of breasts in males SEVERE
- Weight gainSEVERE
- Acne
- Hair loss
- Injection site pain
- Gum or mouth irritation
- Change in taste
- Dry mouth
- Trouble sleeping



# **Oral Testosterone**

- NOT approved for use in the United States
- Testosterone undecanoate has been used
  - available only in Canada and Europe
- Methyltestosterone, still available in the United States, should not be used since hepatotoxicity can be fatal
  - Prolonged use of the oral methyltestosterone formulation is associated with hepatocellular carcinoma, peliosis hepatitis, and other types of hepatotoxicities
  - Not seen with the other replacement preparations

### Archives of internal medicine

#### ORIGINAL INVESTIGATION

Combined Estrogen and Testosterone Use and Risk of Breast Cancer in Postmenopausal Women

Rulla M. Tamimi, ScD; Susan E. Hankinson, ScD; Wendy Y. Chen, MD; Bernard Rosner, PhD; Graham A. Colditz, MD, DrPH

- Oral, Synthetic, Chemical Methyl Testosterone Increased the Risk of Breast Cancer
  - ✓ Estratest, Estratest HS, Syntest & Syntest DS
- Non-Oral, Testosterone (Hormone) Prevents the Stimulation of Breast Tissue and Lowers the Risk of Breast Cancer



 Methyltestosterone in combination with estrogen is (Estratest). solvay Pharmaceuticals, Inc.

solvay
1023\* 0.625 mg/1.25 mg

ESTRATEST® H.S.
(esterified estrogens/methyltestosterone)



- (testosterone, methyltestosterone)
- (oral, transdermal patch, topical gel)

transdermal testosterone pat delivering 300mcg/day in postmenopausal (HSDD).

 female sexual interest/arousal disorder (HSDD)



### REVIEW ARTICLE OPEN



The clinical management of testosterone replacement therapy in postmenopausal women with hypoactive sexual desire disorder: a review

Maria Uloko<sup>1™</sup>, Farah Rahman<sup>2</sup>, Leah Ibrahim Puri<sup>3</sup> and Rachel S. Rubin<sup>4</sup>

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Formulation	Dose	Frequency	Route of administration
Testim 1%	1/10th tube, 5 mg	Daily	Transdermal
Axiron 2%	0.3 ml	Daily	Transdermal, underarm
Androgel 1%	1/10th tube, 5 mg	Daily	Transdermal
Testosterone Enthanate or Cypionate	100 mg/ml, inject 0.05 ml (5 mg)	Weekly	Intramuscular
Testosterone implant	75 mg, 1 pellet	Every 4–6 months	Subcutaneous

# Side effect Androgen therapy

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- metabolic, or other adverse health effects .
- cardiovascular disease, hepatic disease, endometrial hyperplasia or cancer, or breast cancer.
- hirsutism and acne, are usually mild; irreversible virilizing changes (eg, voice deepening, clitoromegaly) are rare and occur only with excessive dosing.
- For reproductive age women, androgen therapy should rarely be used, given a low likelihood that decreased

DHEA is available doses of 25 to 50 mg/d raise circulating androgen levels into the physiologic range

Vaginally administered DHEA 1%compared with placebo improved sexual desire, arousal, lubrication, orgasm,



- Possible treatments for female sexual dysfunction might include:
- Estrogen therapy. Localized estrogen therapy comes in the form of a vaginal ring, cream or tablet.
- This therapy benefits sexual function by improving vaginal tone and low dose vaginal estrogen therapy alone is highly effective in treating atrophic changes and dyspareunia
- Sexual interest, arousal, and response often improve subsequent to improved vaginal health and comfort during sexual activity elasticity, increasing vaginal blood flow and enhancing lubrication.

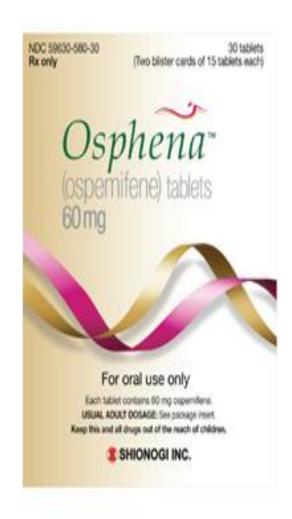
Vaginal Atrophy - Treatment

- May lead to dyspareunia and sexual dysfunction
- Moisturizers and lubricants
  - Replens, Me Again, Vagisil Feminine, Feminease, K-Y Silk-E
  - Water soluble Astroglide, Slippery Stuff, K-Y Jelly
  - Silicone based Pjur Eros, ID Millennium
  - Oil based Elegance Women's Lubricant
- Mechanical Measures
  - Sexual activity
  - Vaginal dilators
- Vaginal Estrogen Therapy
  - Cream Premarin, Estrace
  - · Ring Femring, Estring
  - Tablet Vagifem
- Selective Estrogen Receptor Modulators (SERM)
  - Oral tablet Ospemifene (Osphena)
- Other
  - Smoking cessation
  - . Oral Vit D
  - Vaginal Vitamin E
  - ?Testosterone may help libido, but not vaginal atrophy



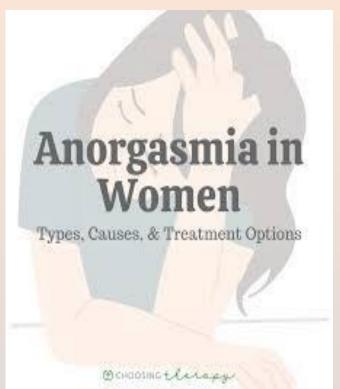


 Ospemifene (SERM) is the first oral treatment approved by the FDA for the treatment of dyspareunia with vulvovaginal atrophy



### The medical treatment of orgasmic

- is challenging
- there have been reports of success with mindfulness, yoga, the use of sex toys, and sex therapy.
- Directed masturbation has demonstrated efficacy for women with lifelong anorgasmia.
- As previously noted, SSRIs have been linked to delayed or absent orgasms and can be dose reduced, replaced with other psychiatric medications, or combined with buproprion.



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### The medical treatment of orgasmic

- Some clinicians have experimented with the off-label use of
- testosterone, dopamine agonists, and yohimbine hydrochloride with encouraging results, although there are no clinical trials to currently support their usage.

- A randomized controlled trial published in the Journal of the American Medical Association demonstrated that sildenafil improved orgasm in women on SSRIs better than placebo.
- Small cohort studies have shown high patient satisfaction rates with surgery or CO2 laser treatment in patients with clitoral phimosis

Summary of diagnosis and treatment of female sexual dysfunction Diagnosis

Treatment

- Sexual pain Local hormone therapy Counselling Pelvic physiotherapy Vaginal/rectal suppositories Topical lidocaine Capsaicin
   Vestibulectomy
- Low desire Hormonal therapy Counselling Buproprion Flibanserin (not available in Canada)
- Low arousal Hormonal therapy Counselling PDE5 inhibitors (e.g., sildenafil)
- Orgasmic dysfunction Mindfulness, sex therapy Hormonal therapy Buprioprion PDE inhibitors (e.g., sildenafil) Yohimbine hydrocholoride



# The Effects of Herbal Medicines on Sexual Function and Sexual Satisfaction among Women: A Systematic Review and Meta-analysis

Asma Zalpour 11, , Elham Zare 10, and Malihe Nasiri 102

Received 2022 December 24; Revised 2023 June 18; Accepted 2023 June 22.

#### Abstract

Context: Sexual dysfunction is one of the most common problems of women affecting their living standards. Concerns about the side effects of chemical drugs and the tendency to use complementary medicine have led to the introduction of herbal medicines as an alternative option to improve this disorder.

Objectives: This study was planned to systematically investigate the effects of herbal medicines on sexual function and sexual satisfaction of women of reproductive age.

Data Sources: All related articles published in English or Persian from 2000 to February 28, 2022, were reviewed. The international databases of Google Scholar, Science Direct, PubMed, Web of Science, Scopus, and Cochrane Library, and the national SID database were searched. Then, the articles were reviewed by two independent researchers. The data were combined using meta-analysis and the random effect model.

Results: The findings of 12 studies entered into the meta-analysis showed that in the group of herbal medicines, the total score of female sexual function significantly improved (0.95; %95 CI: 0.803 - 1.097) (P = 0.001). Also, the sexual satisfaction score was higher in the group of herbal medicines (0.84; %95 CI: 0.476 - 1.21), which was significant (P = 0.001).

Conclusions: Herbal medicines positively affect sexual function and sexual satisfaction of women of reproductive age and can be

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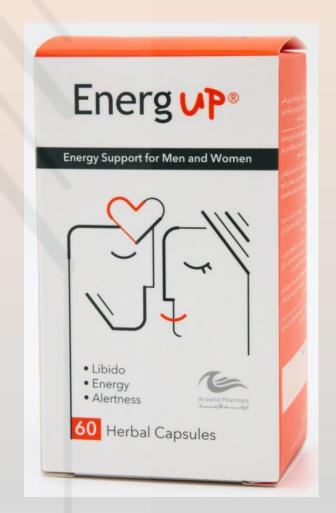
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Category: Libido & Energy Booster for Men and Women





مقدار مصرف: ۲ کپسول در روز

مقدار مصرف روزانه	مواد تشکیل دهنده
۵۰ میلیگرم	عصاره پودری گیاه شاخ بز
۳۵۰ میلیگرم	پودر ریشه ماکا (جینسنگ پرویی)
۰۶ میلیگرم	عصاره پودری خارخاسک ۴۰ ٪
۲۰ میلیگرم	پودر بسفایج (بسپایک)
۱۰۰ میلیگرم	پودر تونکات علی (پاساک بومی)
۱۰۰ میلیگرم	پودر نخل ارهای
۲۰ میلیگرم	پودر ریشه مویرا (چوب قدرت)
۲۰ میلیگرم	جینسنگ کرهای
	"استاندارد شده با ۱۰ میلیگرم ایکارین"
۲۰ میلیگرم	ال آرژننین

سـایر مـواد تشـکیل دهنـده : اسـتئارات منیزیــم، تالـک، کورن استارچ و اروزیل



GTN: 06262849302385

UID: 20514052418104183522

LOT: 2413204 EXP: 06.2026 جینسنگ پرویی که به ماکا هم شهرت دارد، اثرات زیادی در تندرستی انسان دارد و باعث افزایش قدرت جنسی میشود و با ناباروری زنان نیز مقابله میکند

ز جینسنگ در طب سنتی برای درمان دیابت، تقویت قوای جسمی و جنسی و نیز به عنوان مکمل غذایی استفاده می شده است. در طب نوین نیز مطالعات نشان داده اند که استفاده از جینسنگ به عنوان مکمل غذایی باعث بهبود کیفیت زندگی شده اند که می تواند به خاطر خاصیت ضدالته ابی جینسنو زایدها و اثر آن ها در مقابله بهتر بدن با استرس باشد. برای درمان سرطان نیز این گیاه بسیار توصیه می شود

- افزایش سطح تستوسترون: میتواند به افزایش طبیعی سطح تستوسترون کمک کند، که ممکن است به بهبود عملکرد جنسی و افزایش انرژی منجر شود.
- افزایش میل جنسی: ممکن است میل جنسی را افزایش دهد و به بهبود نعوظ کند. کند.
- **کاهش استرس و اضطراب:** ممکن است به کاهش سطوح استرس و بهبود و ضعیت روحی کمک کند، که میتواند بر تمرکز و خلق و خو تأثیر مثبت بگذارد.
- افزایش قدرت و استقامت: برای ورزشکاران، این مکمل میتواند به افزایش قدرت و استقامت در تمرینات کمک کند





Preferably with food, 1 to 2 hours prior to any physical or sexual activity





Capsules per container: **60** 

Supplement Facts			
Serving Size: 2 Capsules Ser	rving Per Container: 30		
Ingredients	Amount Per Serving		
Horny Goat Weed Extract (Providing 10 mg of Icariin)	50 mg		
Maca Root Powder (Peruvian Ginseng)	250 mg		
Tribulus Terrestris 40% Extract	60 mg		
Polypodium Vulgare Powder	20 mg		
Tongkat Ali Root Powder (Pasak Bumi)	100 mg		
Saw Palmetto Powder	100 mg		
Muira Pauma Root Powder	20 mg		
Panax Ginseng Root Powder (Korean Ginseng)	20 mg		
L-Arginine	20 mg		
Other Ingredients: Magnesium Stearate Talk Corn Starch and Aerosil			

Other Ingredients: Magnesium Stearate, Talk, Corn Starch and Aerosil

### فواید علف هرز بز شاخدار

علف هرز بز شاخدار که با نام هورنی گوت یا اپیمدیوم شناخته می شود یک گیاه علفی • لم و ورزش استفاده شود.\ Epimedium sagittatum)گلدار چند ساله (ارتقاء سلامت جنسی و کمک به تقویت میل جنسی کاهش علائم زود انزالی و اختلال نعوظ و افزایش تستوسترون افزایش و بهبود جریان خون

به سلامت قلب و عروق کمک می کند

حاوی فیتواستروژن ها، مواد شیمیایی که تا حدودی شبیه هورمون استروژن عمل می کنند.

استخوان ها را تقویت کنید و از مفاصل سالم حمایت کنید پیشگیری از تحلیل استخوان پس از یائسگی

## ماكا

# ممكن است ميل جنسى را تقويت كند •

- ماكا به عنوان يك گياه دارويي با خواص تقويت كننده جنسي شناخته مي شود •
- .. ماکا میل و احساسات جنسی را افزایش می دهد و محرک لذت است. برای مردان و زنان نشان داده شده است که ماکا میل جنسی را افزایش می دهد و منجر به بهبود عملکرد جنسی می شود
- این عوامل با افزایش میل جنسی مرتبط هستند. با این حال، به طور کلی، مطالعات نشان می دهد که وقتی ماکا به طور منظم مصرف می شود، به عنوان یک تحریک کننده جنسی عمل می کند و به حفظ سطح سالم میل جنسی کمک می کند

## ممكن است بارورى مردان را بهبود بخشد •

تحقیقات نشان می دهد که ماکا ممکن است بر تعداد اسپرم تأثیر بگذارد. این به دلیل توانایی • ریشه ماکا در پشتیبانی از تعداد بیشتر و سالمتر اسپرم است

تاثیر گیاه خارخاسک در تقویت میل جنسی .

### **Tribulus terrestris**

- تقویت قوای جنسی استفاده از عرق خارخاسک و یا مکمل های حاوی آن است. خارخسک باعث افزایش آندروژنها، میل جنسی، افزایش فشار خون سرخرگی، افزایش فشار خون داخل آلت تناسلی نر و باعث افزایش نعوظ و میل جنسی می گردد.
- خار خاسک برای تقویت میل جنسی به ویژه زمانی که نشاط و میل جنسی افراد کاهش یافته است، هم در زنان و هم در مردان کاربرد دارد.
- تحقیقات نشان داده است این گیاه در زنان باعث افزایش میل جنسی به ویژه پس از دوران یائسگی می شود و در مردان نیز مشکلات نعوظ و کاهش سطح تستوسترون را درمان می نماید. مصرف عرق خارخاسک در مردان باعث افزایش مایع منی میشود.

عصارهٔ میوهٔ سرینو ریپنز است و سرشار از اسیدهای (Saw palmetto extractعصاره نخل اره ای (به انگلیسی: می باشد. از این ماده برای درمان سنتی تعدادی از بیماری ها استفاده (Phytosterolچرب و فیتوسترول (به انگلیسی: می شود که مهمترین آن ها هایپرپلازی خوش خیم پروستات است

## TruFuel Tongkat Ali sتونگات علی تروفیول |

- افزایش سطح تستوسترون: می تواند به افزایش طبیعی سطح تستوسترون کمک کند، که ممکن است به بهبود عملکرد جنسی و افزایش انرژی منجر شود.
  - افزایش میل جنسی: ممکن است میل جنسی را افزایش دهد و به بهبود نعوظ کمک کند.
  - **کاهش استرس و اضطراب:** ممکن است به کاهش سطوح استرس و بهبود وضعیت روحی کمک کند، که میتواند بر تمرکز و خلق و خو تأثیر مثبت بگذارد.
- افزایش قدرت و استقامت: برای ورزشکاران، این مکمل میتواند به افزایش قدرت و استقامت در تمرینات کمک کند.
- تقویت سیستم ایمنی: خواص آنتی اکسیدانی تنگات علی ممکن است به تقویت سیستم ایمنی و بهبود سلامتی عمومی کمک کند.
  - تعادل هورمونی: میتواند به تنظیم سطح هورمونها کمک کند و به حفظ توازن هورمونی در ب

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