Sexual Vitality: It’s All About Chemistry
Neuroendocrine Solutions for a Strong and Lasting Sex Life

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Learning Objectives

• Understand the extent of sexual concerns as they exist in the U.S. population
• Gain insight into origins of common sexual complaints
• Learn to assess and accurately treat functional conditions associated with sexual dysfunction
• Obtain successful treatment protocols utilizing natural hormone therapies
• Become familiar with plant-based medicines and pharmaceutical interventions
Simply defined, sexuality is the quality or state of being sexual; the expression of sexual receptivity or interest.
A Common Concern

Sexual dysfunction is a common concern among both sexes throughout the years:

31% of men

and

43% of women

report experiencing sexual dysfunction at some point during their lifetimes

Huge Interest

• K-Y Intense is sold in Walmart, Walgreens and Rite Aid
• Sensuva (an arousal oil for women) can be found in 640 GNC stores nationwide
• Intimina products (sexual care line) is sold at Pharmaca, CVS and drugstore.com
• Zestra (an arousal oil) is now sold in 1800 Walmarts up from 880 in 2010 and previously endorsed by Kris Jenner (Kardashian)

Accessibility verified October 17, 2012.
Sexual Dysfunction May Adversely Impact Quality of Life

Lowered ego, self-worth, and self-esteem, as well as a significant reduction in life satisfaction and quality of the couple's relationship.

Sexual Dysfunction

• Sexual dysfunction occurs when there is a disturbance within the sexual response cycle

Linear Model of Sexual Response

1. Desire
2. Arousal
3. Orgasm
4. Resolution

Adapted from Masters WH, Johnson VE. Human Sexual Inadequacy. Little Brown; 1970.
A Universal Fit?

- Presumes men and women have similar sexual responses
- Does not account for non-biologic experiences such as pleasure and satisfaction
- Does not place sexuality in the context of the relationship
- Many women do not move sequentially through these phases

Non-Linear Model of Sexual Response

• Incorporates the importance of:
  • Emotional intimacy
  • Sexual stimuli
  • Relationship satisfaction

Non-Linear Model of Sexual Response

• Prevents diagnosing dysfunction when the response is simply different from the traditional human sex-response cycle

• More clearly defines subgroups of dysfunction; which is necessary before progress in newer treatment modalities, including pharmacological, can be made

Sexual Dysfunction

- More common among women than men
- Associated with:
  - Age
  - Education
  - Poor physical health
  - Poor emotional health

Causes of Sexual Dysfunction

• Consider changing biology and life challenges:
  • Physical/medical
  • Lifestyle/social
  • Psychological

Physiological Causes of Sexual Dysfunction

• Hormone imbalance
• Neurotransmitter imbalance
• Diabetes
• Metabolic syndrome
• Obesity
• Hypertension
• Neurologic disorders

• Cardiovascular disease
• Endocrine disorders
• Autoimmune disorders
• Chronic fatigue
• Fibromyalgia
• Cancer
• Dyspareunia


Lifestyle Causes of Sexual Dysfunction

- Medications
  - Anti-depressant (particularly SSRIs) meds, anti-hypertensives, **oral birth control pills**
- Alcoholism and substance abuse
  - Amphetamines, barbiturates, cocaine, marijuana, heroin
- Tobacco use
- Sleep difficulties
- **Pregnancy, childbirth, parenting**

Psychosocial and Sociocultural Causes of Sexual Dysfunction

- Depression
- Anxiety
- Stress and fatigue
- Relationship turmoil
- Absence of sexual satisfaction
- Negative change in self-perception
- Negative change in self-confidence
- Low support system
- Social and religious influences; upbringing


Male Sexual Dysfunction

• The most common sexual concerns among men include:

• Erectile dysfunction (ED)
  • 18% of all non-diabetic and 50% of diabetic men over the age of 20 experience ED

• Ejaculatory dysfunction

• Decreased libido
  • 13.5% (dyadic)


Who is at risk for ED?

Major risk factors include:

• Age
• Smoking
• Obesity

Accessibility verified October 18, 2012.
1st Line Therapy?

PDE5-inhibitors are typically recommended as first line therapies with or without androgen therapy.

ED and Comorbidities

ED is often accompanied by comorbid conditions including:

- Established cardiovascular disease
- Atherosclerosis
- Hypertension
- Dyslipidemia
- Hyperlipidemia
- Diabetes mellitus
- Depression
- Lower urinary tract symptoms
- Status post-prostatectomy for prostate cancer

Testosterone and ED

• In the absence of comorbid diseases that may cause ED, “testosterone therapy is effective in restoring sexual desire and function”

• Testosterone therapy alone provides 35-40% success rate of reversing erectile dysfunction

• Supplementation may increase the efficacy of phosphodiesterase type-5 inhibitors (PDE5-I) in those men where PDE5-I’s alone fail (30-40%)

Testosterone and Comorbidities

In men with type 2 diabetes, TRT significantly improves:

• HbA1c
• Total cholesterol
• Weight circumference
Beyond Testosterone

When evaluating, initiating supplementation and monitoring testosterone levels in men, hormone balance is key.

- Estradiol – monitor levels for aromatization
  - Studies of castrated men suggest estrogen is required for erection!
- Progesterone – testing and supplementation consideration for prostate health
- DHEA – support of testosterone levels when needed
  - Studies suggest ED support in those with no organic etiology
- Cortisol – evaluate for adrenal dysfunction

Cortisol

Adrenal hypofunction resulting in suboptimal - low cortisol levels may impact libido in both men and women:

**Don’t forget to consider depressed thyroid function**

Progesterone assists to modulate male sexual function:

- Influences spermatogenesis, sperm capacitation and testosterone biosynthesis in Leydig cells

Progesterone

2006 Review:

“This review opens a window on progesterone as a potential hormone that exerts a considerable influence on male sexual function...

...in recent years, studies have provided valuable insight of progesterone modulating male sexual function”

Botanical and Nutraceutical TX Options

• Supplementation to decrease oxidative stress and inflammatory markers (increase NO production, lower insulin resistance):
  • Antioxidants
  • Omega-3 fatty acids
  • Folate
  • Vitamin D

Botanical and Nutraceutical TX Options

• L-arginine
  • High dose (5 g qd x 6 weeks) shown to provide subjective improvement in ED by 31%
  • *Considered contraindicated with history of HSV
    

• Korean Red Ginseng
  • (1 g tid x 12 weeks) improved erectile function without detectable changes to testosterone, prolactin or cholesterol

Botanical and Nutraceutical TX Options

L-arginine and Pycnogenol

40 men ages 25-45 with ED, no “organic cause”

- All took 1700 mg L-arginine daily for 3 months
- Second month, Pycnogenol 40 mg, BID added to L-arginine
- Third month, Pycnogenol 40 mg, TID added to L-arginine

Botanical and Nutraceutical TX Options

L-arginine and Pycnogenol

Results

Normal erections reported by:
• 2 of 40 participants after 30 days (arginine alone)
• 32 of 40 after 60 days (arginine & Pycnogenol 80 mg)
• 37 of 40 (92%!) after 90 days (arginine & Pycnogenol 120 mg)

"L-arginine in combination with Pycnogenol causes a significant improvement in sexual function in men with ED without any side effects."

Botanical and Nutraceutical TX Options

L-arginine and Pycnogenol

Japanese men with mild to moderate ED
• 690 mg L-arginine, 60 mg Pycnogenol and 552 mg aspartic acid PO QD
• After 8 weeks of supplementation:
  • Marked improvement in “hardness of erection” and “satisfaction of sexual intercourse”
  • Decrease in blood pressure, aspartate transaminase and y-GTP
  • Slight increase in salivary testosterone levels
  • No adverse reactions observed

Arginase

Concentrated in the liver and intestine, the enzyme that converts arginine to ornithine (rather than NO) is upregulated with ED comorbidities:

• Presence of oxidized LDL, hypertension, atherlosclerosis, diabetic vascular disease

Another Option?

L-citrulline

• Converted to L-arginine in the kidneys, vascular endothelium

• Does not induce arginase activity, thus increases amount of arginine available for NO production

Botanical and Nutraceutical TX Options

L-citrulline

24 males with mild ED mean age 56.5+/- 9.8 years

• Given placebo for 1 month and L-citrulline, 1.5 g/d, for another month

• Increase in erection hardness score from 3-4 in 50% of men when taking L-citrulline (compared to 8.3% when taking placebo)

Additional Treatment Considerations

- Methylation support
  - 5-MTHF, methylB12 and B6
- Support homocysteine levels (homocysteine lessens NO production)
- Support BH4 stability/production (co-factor for NOS)

Lifestyle Considerations

• These lifestyle changes alone may result in improved sexual function in 1/3 or obese men with ED:
  • Weight loss (body mass index less than 30)
  • Increased physical activity
  • Dietary intervention: Mediterranean diet, alcohol consumption
• Additional considerations:
  • Smoking cessation
  • Psychotherapy

Esposito K. Effect of lifestyle changes on erectile dysfunction in obese men: a randomized controlled trial. JAMA 2004; 291: 2978-84.
Healthy Lifestyle
Reduces Risk & Treats ED

Esposito K. Effect of lifestyle changes on erectile dysfunction in obese men: a randomized controlled trial. JAMA 2004; 291: 2978-84.
Female Sexual Dysfunction

• 43% of women report sexual dysfunction at some point in their lifetimes
  • Including lack of desire, arousal or orgasm, or pain during intercourse
  • Postpartum, breastfeeding and menopausal hormonal changes often parallel symptoms
  • More symptomatic women (hot flashes, fatigue, sleep and mood disturbances) report significantly lower sexual desire

NO FDA approved drug to treat female sexual dysfunction (FSD).

Why?
FSD

- Multicausal
- Mult...
Female Sexual Dysfunction

The most prevalent sexual problems among women age 50+ are:

- Decreased libido (43%)
- Difficulty with vaginal lubrication (39%)
- Inability to climax (34%)

Decreased libido

...DSM IV

Hypoactive Sexual Desire Disorder is the “persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity” that causes a woman “marked distress or interpersonal difficulty”

• 1:10 US women affected

Decreased libido

...DSM V

Controversial changes to the diagnostic criteria of FSD include:

• Combining Female Sexual Arousal and Desire Disorder into one disorder

• Requires presence of disorder for 6 months or more
Outside a Diagnosis

When distress is not accounted for, concern about low sexual desire may be present in up to 40% of women

Libido & Hormones: Balance is key!

Hormones and neurotransmitters are excitatory or inhibitory in nature and optimal sexual functioning requires a balance of these factors.

• Excitatory:
  • Estrogen
  • Progesterone
  • Testosterone
  • Dopamine
  • Norepinephrine and epinephrine
  • DHEA

• Inhibitory:
  • Serotonin
  • GABA
  • Cortisol

Libido and hormone therapy

Women using hormonal therapy report higher sexual desire

- Individualized therapy is needed; every woman is not the same and thus testing is necessary to assess individual needs

A Balancing Act

Hormone imbalance and female sexual dysfunction is *more than just testosterone*!

- Contributing hormonal imbalances may include:
  - Estrogen deficiency
  - Estrogen dominance
  - Hyper/hypoandrogenism
  - Cortisol dysregulation
  - Thyroid dysfunction

Estrogen Deficiency

Estrogen replacement is the prescribed therapy for most of the sexual dysfunction observed in menopausal women.

Estrogen Deficiency

- Loss of ovarian estrogen leads to:
  - **Vaginal dryness and atrophy**, resulting in painful intercourse
  - **Diminished vaginal sensation**, resulting in decreased pleasure during intercourse and difficulty achieving orgasm
  - **Chronic vaginal and/or bladder** infections

**Topical lubricants are palliative, not preventative**

Vaginal Dryness/Atrophy

- Vaginal estriol effectively treats dryness and atrophic changes and is not associated with endometrial hyperplasia.
- Vaginal estrogen alters the vaginal flora by maintaining adequate pH and prevents recurrent UTIs.

Estriol

• **Vaginal Estriol Cream:** 1-2 mg in 1 gram of cream. Using finger or applicator or suppository and have patient insert 1 gram (1/4 teaspoon) of cream or suppository into the vagina.

• Start with every night for 2-4 weeks, depending on the severity then decrease frequency prn

• **Severe Atrophy:** add testosterone... estriol 1mg and testosterone 0.125 mg combined in 1 gram of vaginal cream.

No Question of Safety

• Estriol:
  • Hundreds of thousands (millions?) of patients
  • Not one adverse event reported to FDA
  • Legal and appropriate under all pharmacy standards
  • Estriol has a USP monograph
  • Currently in phase III trials to treat MS
  • Used in Asia and Europe for years; well supported in literature
  • Sold by Wyeth in Europe

VISIT WWW.SAVEMYBHRT.ORG
TELL FDA TO LISTEN TO WOMEN, NOT WYETH - AND SAVE HORMONES WITH ESTRIOL!

Wyeth wants to have it both ways. In Europe, it has marketed a hormone drug containing estriol as an “ideal therapy.” But in the U.S., where it markets a competing drug, Wyeth has called estriol “a serious threat to public health.”

Wyeth petitioned FDA to restrict estriol. In response, tens of thousands of women wrote to FDA opposing Wyeth’s request. Unfortunately, FDA listened to Wyeth and announced that it will “halt” the compounding of hormones with estriol - even though it has not connected the drug to any adverse events.

FDA wants to force hundreds of thousands of women to discontinue the medications their doctors have prescribed.

Wyeth Citizen Petition to FDA
Wyeth Pharma Deutschland ad for Cycle-Metroette
**Estriol Summation Statement**

- Review of 150 articles included are those which show:
  - Oral and vaginal estriol is not associated with increased risk of breast cancer
  - Estriol is safe for use in postmenopausal women previously treated for breast cancer
  - Estriol prevents bone loss and increases bone mineral density in postmenopausal women
  - Oral estriol does not cause endometrial changes in postmenopausal women
  - Estriol is effective in the treatment of atrophic vaginitis
  - Estriol is safe and effective for the treatment of climacteric symptoms in post menopausal women
  - Vaginal application of estriol is systemically absorbed
IND-HE

- IND-HE (friedelin rich fraction), a triterpenoid constituent of botanicals reported to have estrogenic activity
  - Cissus quadrangularis
  - Cissus repens
  - Eleutherococcus

IND-HE – Potential Treatment?

“IND-HE exhibits mild to moderate estrogenic activity. Estrogen treatment increases excitability and reproductive behavior. Sexual behavior... showed remarkable similarity”

Estrogen Dominance

Estrogen dominance (progesterone insufficiency) is both $1^0$ and $2^0$ contributor to libido

Estrogen Dominance

- Estrogen dominance refers to an excess of estrogen relative to progesterone
- Common in women of reproductive years, commonly present in PMS, menopause and with hormone replacement
  - Over supplementation
  - Poor estrogen/progesterone balance
- Worsened by:
  - High estrogenic environment
  - Poor estrogen metabolism
  - Poor diet
  - Insulin resistance
  - Anovulation

Progesterone vs. Progestin

Progesterone

Medroxyprogesterone Acetate
References

• Holtorf K. The bio-identical hormone debate: are bio-identical hormones (estradiol, estriol, progesterone) safer or more efficacious than commonly used synthetic versions in hormone replacement therapy? *Postgrad Med.* 2009; 121: 1-13.
• Lindenfeld EA, Langer RD. Bleeding patterns of the hormone replacement therapies in the postmenopausal estrogen and progestin interventions trial. *Obstet Gynecol.* 2002; 100.
Progesterone

• Mediates receptivity to partner approach
• Directly plays a key role in maintaining libido (think progesterone surge at ovulation)
  • Study of female hamsters with ovaries removed showed revival of sexual activity only after progesterone was added to estrogen therapy.

Estrogen dominance

Symptoms of estrogen dominance are 20 contributors to decreased libido:

- Irritability
- Bloating
- Depressed mood
- Anxiety
- Mood swings

Balancing with progesterone

• Dosage scheduling guidelines:
  • If pre-menopausal:
    • Interested in conception, use Pg days 14-28 each cycle (during the luteal phase)
    • NOT interested in conception, use Pg days 7-28 (week of menses off)
  • If peri-menopausal, use Pg days 7-28 (when not bleeding) each cycle
  • If menopausal, treat continuously

Balancing with progesterone

Progesterone cream* starting dose 20-60 mg QD (divided, BID dosing when vasomotor symptoms are present)

• Dosage potency guidelines:
  • For women weighing < 150lbs: 20-30 mg topically qd
  • For women weighing > 150lbs: 40-60 mg topically qd

*Topical progesterone is better absorbed than oral due to large first pass liver effect.

Adjust dosing based on patient’s response, metabolism and saliva hormone levels.

Hypoandrogenism

Testosterone plays an essential role in female libido and, when elevated testosterone levels are not present, supplementation has been shown to be beneficial to increasing libido.

Testosterone

Adequate testosterone contributes to libido and desire, arousal, frequency, satisfaction and decreased vaginal dryness.

Decreased testosterone levels most commonly associated with:

- Age
- Oophorectomy
- Oral estrogens

Testosterone

“Based on evidence of current studies, it is reasonable to consider testosterone therapy for a symptomatic androgen-deficient woman with women’s sexual interest and desire disorder.”

Testosterone

• Off-label use of testosterone, typically in women over 40 y.o.
• Transdermal patches and topical gels preferred route of delivery to avoid first-pass metabolism (hepatotoxic)
  • Typical transdermal dosing is .5-1.5 mg QD

Beyond Testosterone

“Less than half of women recover libido through testosterone therapy”
Dehydroepiandrosterone (DHEA)

Physiological decline with age, beginning in the 3rd decade
• 80% decrease in DHEA by age 70

Often overlooked in clinical practice. However, clinical results may support use in women with low testosterone, as DHEA is a hormonal precursor to testosterone

University of Maryland Medical Center. Dehydroepiandrosterone. Available at:
DHEA

216 postmenopausal women with moderate to severe vaginal atrophy using 10 mg PV QD x 12 weeks reported:

• 49% and 23% improvement of desire domain
• 68% improvement in arousal/sensation
• 39% improvement in arousal/lubrication
• 75% improvement in orgasm
• 57% improvement in dryness during intercourse

Using the Menopause Specific Quality of Life and Abbreviated Sex Function questionnaires

DHEA supplementation

• Can be oral or topical
  • Oral start with 5-15 mg Q AM
  • Topical 5 to 10 mg Q AM
• Pro-hormone, converts to testosterone and estrogen in both men and women
• Be careful with supplementation with overweight women—can elevate estrogen levels significantly

Hyperandrogenism

Evolving/established insulin resistance in women can result in elevated androgens (DHEA and/or testosterone) without a direct increase in libido.

Testosterone and female sexual function

A study of 106 women who underwent bariatric surgery demonstrated significant improvement in overall sexual functioning and a decrease in total testosterone from baseline at years 1 and 2 postoperatively.

### Patient Info:
- **Age:** 43
- **Gender:** F
- **Menopausal Status:** Pre-Menopause

### Sample Collection
- **Date/Time:**
  - Morning: 05/14/2012 0620
  - Noon: 05/14/2012 1200
  - Evening: 05/14/2012 2030
  - Night: 05/14/2012 2255
- **Samples Arrived:** 05/16/2012
- **Results Reported:** 05/18/2012

### Hormones

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<th>Units</th>
<th>L</th>
<th>WR</th>
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<th>Reference Range</th>
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<td>pg/ml</td>
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<td></td>
<td></td>
<td>(1) 1.0-10.8 pre; (2) 1.0-3.2 post; (3) 1.5-10.8 supplementation; (4) &lt;2.5 males</td>
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<tr>
<td>EQ (E3 / (E1 + E2))</td>
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<tr>
<td>Progesterone (Pg)</td>
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<td>pg/ml</td>
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<td></td>
<td></td>
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<td>Ratio of Pg/E2</td>
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<td><strong>Testosterone</strong></td>
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<td>(1) 6.1-49 females; (2) &lt;10 males; (3) &lt;34 supplementation; (4) &lt;10 supplementation</td>
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### Adrenals

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<td>(1) 0.9-4.2; optimal range</td>
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### Symptoms
- Decreased Libido
Stress and sex

Stress has been found to be negatively associated with sexual function.

Physiologically mediated by the adrenal glands, chronic stress leads to decreased cortisol output.


Distress About Sex

“The best predictors of sexual distress were markers of general emotional well-being and emotional relationship with the partner during sexual activity.”

Additional Botanical and Nutraceutical Considerations

Addition of botanical support and nutraceuticals

- **Maca** – support stamina, energy and sexual function
- **Damiana** – promote relaxation
- **Korean ginseng** – upregulate NO activity, increase NO production in endothelial cells. May promote relaxation of clitoral cavernosal mm and vaginal smooth mm
- **Ginko biloba** – promote microvascular circulation
- **Sea Buckthorn** – support vaginal tissue moisture
- **L-arginine** – increase NO for vasodilation and arousal

**Korean red ginseng (KRG)**

32 menopausal women in a placebo-controlled, double-blind, crossover clinical study received placebo or 1 gm KRG PO QD.

**Results:** Significant improvement in FSFT and GAQ scores. “Oral administration of KRG extracts improved sexual arousal in menopausal women.”

*2 cases of vaginal bleeding were reported during KRG treatment*

Pharmaceutical options?

Pharmaceutical options are sparse (likely because female sexual dysfunction is multifactorial and, thus treatment is as well)

• Sildenafil
  • Off-label use for arousal disorders have been used without consistently positive results
• Topical sensation creams
  • Can be ordered through compounding pharmacy and often contain vasodilator (arginine) and sensitizing agents (menthol)

More Than Just Hormones....
Neurotransmitters

• Neurotransmitters are responsible for regulating aspects of mood, cognition and behavior including:
  • Sexual motivation
  • Reward seeking

Neurotransmitters

• Excitatory or inhibitory in nature:
  • Excitatory components stimulate sexual desire
  • Inhibitory components stimulate sexual reward, sedation and satiety

Neurotransmitters

Decreased libido may be due to:
Reduced excitatory activity and/or
Increased inhibitory activity

Neurotransmitters

Desire requires balance of inhibitory and excitatory factors

**Excitatory:**
- Dopamine
- Norepinephrine and Epinephrine
- Glutamate

**Inhibitory:**
- GABA

**Excitatory** OR **Inhibitory:**
- Serotonin (dependent on amount and receptor subtype)


Dopamine

- Essential for desire and subjective sense of arousal
- Assists in modulation of arterial blood flow and mediation of erection

Norepinephrine and Epinephrine

- Essential for regulating arousal
- Increase of levels until peak at orgasm, with rapid decline thereafter
- Critical in regulation of vasoconstriction/relaxation of the corpora cavernosa

Norepinephrine and Epinephrine

Proper conversion of NE $\rightarrow$ E requires magnesium, SAMe and cortisol

Supporting D/NE/E

Dopamine, norepinephrine and epinephrine may be depleted due to stress. Low to low-range levels may be boosted with:

• Tyrosine: precursor amino acid
  • 50-1,500 mg qd
• Mucuna pruriens: bean contains 3% – 6% L-dopa
  • 200-800 mg qd

Serotonin

• Modulator of central neuroregulatory control of penile erection

• Role in initiation of sexual arousal
  • Affects vascular tone and blood flow
  • Facilitates uterine contractions, thus affecting female orgasm

Serotonin

• May interfere with sexual function by:
  • Reducing sensation
  • Reducing adrenergic effects
  • Inhibiting NO synthase
  • Stimulating 5-HT receptors, thus inhibiting orgasm (SSRI sexual dysfunction)

Maca

“Peru’s Natural Viagra?”

A study of 17 women, ages 23-49, found 3.0 g Maca root PO QD to be beneficial in alleviating SSRI-induced sexual dysfunction, suggesting beneficial effect to libido.

Yohimbe

- An evergreen tree found in Zaire, Cameroon and Gabon, the bark is used to make yohimbine, available by prescription.
  - An alpha-2-adrenergic antagonist and weak MAO inhibitor, may be effective at reversing sexual side effects associated with SSRIs (for both men and women)
  - May be effective for erectile dysfunction not associated with SSRIs

Supporting Serotonin

- Decreased serotonin levels may be supported with:
  - L-tryptophan: 500-2000 mg QD
  - 5 HTP supplementation: 50 mg-600 mg QD

- Supporting elevated serotonin levels:
  - L-theanine 10-500 mg BID

Assessing Sexual Dysfunction

• Query and rule out: lifestyle/psychosocial/physiological factors
• Pertinent physical exams
• Salivary hormone testing: E2, prog, test, DHEA, C x 4
• Serum testing: CBC, CMP, lipids, TSH, FT3 FT4, ferritin
• Urinary neurotransmitter levels: dopamine, norepi, epi, serotonin, GABA, glutamate


Communication Gap

• Only 35% of providers take a sexual history at least 75% of the time!

• 58% of women reported initiating the doctor-patient conversation regarding sexual concerns!

• Only 22% of women over 50 talked to their doctor about sex!

Bachmann G. Female sexuality and sexual dysfunction: are we stuck on the learning curve? J Sex Med. 2006; 3: 639-34.
Why the gap?

- Time constraints
- Does not pertain to chief complaint
- Provider feels uncomfortable
- Provider has limited knowledge/training
- Provider has limited treatment options

Closing the Gap

• Utilize sexual health questionnaires as part of the intake or assessment
  • Female Sexual Function Index (female only)
  • Sexual Distress Scale (male and female)
  • Decreased Sexual Desire Screener (female only)
• Ask direct questions
• Listen respectfully
• Routinely make sexual health questions part of intake

Bachmann G. Female sexuality and sexual dysfunction: are we stuck on the learning curve? J Sex Med. 2006; 3: 639-34.
Closing the Gap

Sample questions:

• “Do you have any sexual health concerns today?”

• “Many women going through menopause experience symptoms like decreased sex drive, pain with intercourse or vaginal dryness. Are any of these a concern for you?”
Treating Sexual Dysfunction

Use a comprehensive interview, exam and lab work to:

1) Lay a strong foundation:
   • Individualized hormone balancing via BHRT
   • Address neurotransmitter imbalances

Treating Sexual Dysfunction

2) Treat underlying physiological conditions

3) Address lifestyle contributors:
   • Lifestyle modification
     • Medication changes, substance use, sleep hygiene
     • Making intimacy a priority – date night, timing of intimacy, involve partner & create excitement

4) Address psychosocial contributors:
   • Encourage positive self-talk & self-image
   • Teach stress management, mindfulness
     • Enlist the help of a therapist
Summary

Sexual dysfunction is a prevalent concern among both men and women across all age groups, influencing quality of life and stemming from a multitude of factors including and often extending beyond testosterone.

Successful treatment of these concerns requires addressing multiple factors (lifestyle, underlying medical problems, psychosocial concerns) while laying a strong foundation via individualized hormone and neurotransmitter balancing.