

# Female sexual dysfunction: Don't assume it's a side effect

Watch for medical, psychiatric causes

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**A**ntidepressants are one of many possible causes of sexual dysfunction in women. Sifting through the medical, psychological, and gynecologic possibilities can be daunting, but missing the cause can aggravate the sexual disorder and—worse—delay appropriate treatment.

To help you zero in more quickly, this article explains how to:

- accurately classify the sexual disorder based on presenting complaints
- perform a targeted yet thorough medical, gynecologic, and psychiatric history
- determine which lab and medical tests to order and where to refer the patient.

continued



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Table 1

## Prescription medications that can cause sexual dysfunction

### Psychotropics

#### Amphetamines

#### Antidepressants

Monoamine oxidase inhibitors  
 Selective serotonin reuptake inhibitors  
 Heterocyclic antidepressants

#### Antiepileptics

Phenytoin

#### Antipsychotics

#### Anxiolytics

Benzodiazepines

#### Barbiturates

#### Lithium

#### Narcotics

### Nonpsychotropics

#### Anabolic steroids

#### Anticholinergics

#### Antihistamines

#### Antihypertensives

Beta blockers  
 Clonidine  
 Spironolactone

#### Chemotherapeutic agents

#### Lipid-lowering agents

#### Methyldopa

#### Oral contraceptives

Source: References 3 and 4

### CASE: DEPRESSED WITH SEXUAL PROBLEMS

Ms. S, age 42, has major depressive disorder. Her medical history is unremarkable and menstruation is regular, but she reports discord with her husband.

The patient had been taking paroxetine, 40 mg/d for 2 years, but stopped taking it 6 months ago because she thought she no longer needed it. During that time, Ms. S says, her depressive symptoms (reduced interest and energy, insomnia, loss of appetite with weight loss, and inability to concentrate) have resurfaced. She says she sometimes wishes she were dead but denies intent to harm herself. We restart paroxetine at 20 mg/d and increase the dosage over 2 weeks to 40 mg/d.

Five weeks after reaching the target dosage, Ms. S reports delayed orgasms and reduced libido, which she attributes to paroxetine. She insists that we switch her to bupropion because it is less likely than other antidepressants to reduce sexual function.<sup>1,2</sup> We stop paroxetine, start sustained-release bupropion, 150 mg/d, and increase the dosage to 150 mg bid over 2 weeks.

**Discussion.** Accurately classifying the sexual dysfunction and taking a thorough medical and psychiatric history are key to determining whether a prescription medication (Table 1) is causing Ms. S' sexual problems.

Understanding the terms that describe female sexual dysfunction can narrow the differential diagnosis. DSM-IV-TR describes nine women's sexual disorders and their diagnostic features (Table 2, page 51).<sup>5</sup>

### IS IT A SIDE EFFECT?

Ask the patient which prescription medications—psychotropic and nonpsychotropic—she has been taking. If possible, confirm medications with the patient's primary care physician. Evaluate for side effects that may be impairing sexual health.

Most antidepressants with serotonergic

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**Table 2**  
**DSM IV-TR descriptions of female sexual dysfunction disorders**

Disorder	Diagnostic features
Dyspareunia (not due to a general medical condition)	Genital pain, usually during coitus but sometimes before or after
Female orgasmic disorder	Persistent or recurrent delay in or absence of orgasm after normal sexual excitement
Female sexual arousal disorder	Persistent or recurrent inability to attain or maintain adequate lubrication-swelling response
Hypoactive sexual desire disorder	Deficiency or absence of sexual fantasies, lack of desire for sexual activity
Sexual aversion disorder	Patient avoids or is averse to genital sexual contact
Sexual dysfunction due to a general medical condition	Direct physiologic effects of medical illness is believed to be causing sexual problems
Sexual dysfunction, not otherwise specified	Complaints do not meet criteria for specific sexual dysfunction
Substance-induced sexual dysfunction	Clinically significant sexual pain or impairment in desire, arousal, or orgasm directly caused by a medication, drug of abuse, or toxin exposure
Vaginismus (not due to a general medical condition)	Recurrent or persistent involuntary contractions of the perineal muscles when vaginal penetration is attempted

Source: Reference 5

effects can cause or exacerbate sexual dysfunction. Commonly used medications such as corticosteroids, antihypertensives (particularly beta blockers, clonidine, and spironolactone), and antihistamines also can reduce sexual function.<sup>6-8</sup>

**CASE CONTINUED: ‘IT’S NOT WORKING OUT’**

Two months later, Ms. S says her sexual symptoms have not improved. She starts discussing her ambivalence about her marriage and attributes her delayed orgasms to marital discord.

We taper and discontinue bupropion, restart paroxetine at 20 mg/d for 1 week, and increase it to

40 mg/d. We also refer Ms. S to our clinic’s psychotherapist, who begins psychodynamic psychotherapy to address the patient’s relationship with her husband. As Ms. S gains insight into her marital problems, her libido and ability to achieve orgasm improve.

**Discussion.** Relationship and psychosexual history offer important clues to sexual dysfunction (see “Sexual dysfunction: What’s love got to do with it?” page 59). Women who have been sexually, physically, or emotionally abused tend to avoid sexual relationships. Some women become less sexually

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Table 3

**Low interest? Delayed orgasm? Vaginal pain? Here's what you need to find out**

If patient reports...	Ask:*
Lack of interest in sex	Has this happened before? Have you started any new medications or changed dosages?
Dreading the prospect of sex with her partner	Are there any physical reasons why this happens? Has this happened before? What is the nature of your relationship with your partner? Have you had problems like this with previous partners?
Difficulty becoming aroused	Does this happen only with your partner? Can you become aroused with self-stimulation or use of other objects?
Difficulty reaching or maintaining orgasm	Does this happen only with your partner? Are you able to achieve orgasm with self-stimulation or use of other objects? Has this happened with other partners?
Vaginal pain during intercourse	Have you noticed vaginal dryness? Has this happened before? Does this happen with self-stimulation or use of other objects?

\* Patient's answers to questions about specific sexual dysfunction symptoms could suggest concurrent sexual dysfunction disorders.

active with age, as fewer potential sexual partners become available. Others may have lost a sexual partner because of divorce, infidelity, disability, or death.

**IS THERE A PSYCHIATRIC CAUSE?**

Obtain a detailed psychiatric history, which should include:

**Relationship status.** Does the patient have a steady partner? If so, are she and her partner equally interested in sex? Are she and her partner fighting? If she is married, has she or her husband had an extramarital affair?<sup>6</sup>

If the patient does not have a steady partner, does she have sex? If yes, how often? Is she pleased with the experience?

**Relationship history.** Has the patient been in an abusive relationship?

**Substance use.** Does the patient use drugs or alco-

hol, which can impair sexual function? If yes, how often and how much?

**Psychosocial history.** Find out whether cultural or religious values have influenced the patient's attitude toward sex.<sup>8</sup> Cultural restrictions against openly discussing sex can inhibit a person's view of sex or foster a belief that sex is not permissible.

**Sexual orientation.** Be nonjudgmental, but watch for signs of gender identity disorder, which requires more-focused interventions.

**Past and current psychiatric disorders.** Women with depression are more likely than nondepressed women to lose sexual desire and complain of anorgasmia.<sup>8</sup>

Sexual dysfunction can also accompany symptoms of posttraumatic stress disorder or anxiety, particularly if past sexual trauma caused these symptoms.

**CASE CONTINUED: A TURN FOR THE WORSE**

Several months later, Ms. S' depressive symptoms have worsened, and she develops psychosis (primarily persecutory delusions). We hospitalize her and diagnose major depressive disorder with psychotic features. We increase paroxetine to 60 mg/d over 3 days. We also add risperidone, 1 mg nightly, and titrate over 1 week to 2 mg nightly.

After 2 weeks, we discharge Ms. S when she reports improved mood with no suicidal thoughts or psychotic symptoms. She says her marriage is stable, but her sexual interest is again diminished. Continued psychotherapy has not alleviated her sexual symptoms, nor has reducing paroxetine to 40 mg/d. Risperidone dosage is the same.

Six weeks after discharge, Ms. S reports irregular menses and galactorrhea that have been present for 1 month. She fears she is entering menopause.

**Discussion.** Ms. S' case shows how convergent psychological, medical, and pharmacologic risk factors for sexual dysfunction can confound diagnosis in women with depression.

Paroxetine—like other selective serotonin reuptake inhibitors—can reduce sexual desire,<sup>9</sup> but Ms. S' sexual symptoms persisted after we reduced the dosage or stopped the medication. Psychodynamic psychotherapy saved her marriage but did not improve her sexual function.

- Is Ms. S starting menopause?
- Is risperidone—which also can decrease libido<sup>3</sup>—a contributing factor?
- Do galactorrhea and irregular menses signal a serious medical problem?

Menopause can create a “cycle” of sexual dysfunction for older women. At age 42, Ms. S is probably not reaching menopause unless recent gynecologic surgery has triggered early onset.

**IS THERE A MEDICAL PROBLEM?**

Because so many medical conditions can contribute to one or more sexual dysfunction disor-

Table 4

**Female sexual dysfunction: 5 medical causes you should not miss**

- Diabetes
- Hypertension
- Stroke
- Urinary incontinence
- Urinary tract infections

ders, the presenting symptoms should guide the medical history (Table 3, page 52). Ask about:

- personal or family history of common medical conditions that cause sexual dysfunction, such as diabetes mellitus and hypertension (Table 4). Vascular complications stemming from these disorders can block arousal. Osteoarthritis—which is probably ruled out for Ms. S but is prevalent in postmenopausal women—may cause discomfort or pain that obliterates sexual desire.<sup>6</sup>

- current or past gynecologic conditions. Many gynecologic disorders can impair sexual function.

Ask if the patient has a personal or family history of gynecologic cancer and whether she has had gynecologic surgery. Be specific when listing each procedure (for example, hysterecto-

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## Box

### Sex isn't fun anymore. Is menopause the cause?

Ms. A, age 63, reached menopause at age 55. She reports no other medical problems when she presents for an annual checkup.

For 6 months, she says, she has had little desire for sex with her husband. During additional questioning, she reports vaginal discomfort and lack of pleasure.

Pelvic exam reveals vaginal wall atrophy and vaginal vault dryness. We suspect that vaginal atrophy secondary to menopause has diminished Ms. A's libido, as other physical exam and laboratory findings are normal.

**Sexual dysfunction** is more frequent and is more often irreversible among women who are experiencing or have gone through menopause, compared with younger women.<sup>4</sup>

Genital tissues have abundant estrogen receptors in the epithelial, endothelial, and smooth muscle cells. Ovarian estradiol production ceases with menopause onset, subjecting genital tissues to atrophy; this in turn decreases lubrication and vaginal moisture. Loss of moisture causes dyspareunia, prompting women to avoid or fear sexual intercourse. Decreased sexual activity leads to further vaginal atrophy, creating a cycle of sexual dysfunction.

**Iatrogenic causes**, such as bilateral oophorectomy and chemotherapy, also can trigger menopause. In such cases, sexual dysfunction caused by lack of androgen production can be severe.<sup>10</sup>

As women approach or have completed menopause, hormonal changes—including FSH, LH, estrogen, and progesterone—and chronic medical illnesses such as diabetes and hypertension, are more likely to contribute to sexual dysfunction. In younger women, workup may focus on thyroid dysfunction and medications, such as oral contraceptives.

my with or without oophorectomy). Also do a pregnancy test.

Be aware that some women may have comorbid disorders, any of which could decrease sexual function. For these women, finding the root cause is essential to ensuring appropriate, targeted treatment. For example, ask a patient who complains of decreased arousal to explain how she feels during sex. Her answers might reveal symptoms that suggest dyspareunia. Similarly, an older woman who loses interest in sex could have a sexual aversion disorder or could be starting menopause (Box).

Finally, ask how long the sexual dysfunction has persisted, as this will help you rule out causes. For example, diabetes progressively depletes sexual function, whereas medication might precipitate a more acute or abrupt change.

#### ORDERING ADDITIONAL TESTS

An introductory laboratory evaluation, performed in concert with the patient's primary care physician, can help assess for common medical causes of sexual dysfunction. Watch for:

- elevated blood pressure, which suggests hypertension
- overweight, which can lead to hyperlipidemia or osteoarthritis
- glycosylated hemoglobin > 7%, which could signal diabetes
- prolactin > 20 ng/mL, which suggests pituitary dysfunction
- low estrogen and/or follicle-stimulating hormone (FSH) 40 to 200 mIU/mL, which suggest menopause
- elevated estrogen or FSH > 5 mIU/mL, which could signal amenorrhea
- low free and total testosterone readings, which may signal an androgen problem
- Elevated thyroid-stimulating hormone (TSH), which could point to hypothyroidism.

- Low TSH, which could signal hyperthyroidism.<sup>8</sup>

Any of the above findings warrant referral to the patient's primary care physician for further treatment. Refer to an endocrinologist for hormone abnormalities including FSH, luteinizing hormone, testosterone, or prolactin. Hormone abnormalities may also necessitate referral to a gynecologist.

#### CASE CONTINUED: TELLING TEST RESULTS

We measure Ms. S' prolactin because she is taking risperidone, which can cause hyperprolactinemia. Prolactin is 61.86 ng/mL, suggesting medication-induced prolactinemia or a pituitary abnormality. We consult with endocrinology and refer the patient to a radiologist for brain MRI, which reveals a prolactin-secreting tumor in the pituitary gland.

Tapering and discontinuing risperidone over 1 week reduce but do not normalize Ms. S' prolactin. Although dopamine agonists are first-line therapy for prolactin-secreting tumors, we fear such drugs would activate Ms. S' psychotic symptoms. She instead undergoes surgery to remove the adenoma. Her sexual symptoms, galactorrhea, and irregular menses eventually resolve.

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#### Related resources

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#### DRUG BRAND NAMES

Bupropion SA • Wellbutrin SR  
Clonidine • Catapres  
Paroxetine • Paxil, Pevexa

Risperidone • Risperdal  
Spironolactone • Aldactone

#### DISCLOSURES

The authors report no financial relationship with any company whose products are mentioned in this article, or with manufacturers of competing products.

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Many medical or psychiatric problems can decrease sexual function in women with depression. DSM-IV-TR definitions of sexual disorder can help you pinpoint the dysfunction, investigate the cause, and plan appropriate referrals for testing.

BottomLine