SEXUAL DYSFUNCTIONS

Erectile Disorder

ED

DSM-5-TR 302.72 | ICD-10-CM F52.21

Persistent difficulty obtaining or maintaining an erection, or reduced erectile rigidity, causing marked distress for at least six months.

PREVALENCE	TYPICAL ONSET	DURATION THRESHOLD	KEY COMORBIDITY
~40% at age 40; ~70% at 70	Rises steadily after 40	6 mo, ~75-100% of attempts	CVD; ED precedes MI ~3-5 yr

CLINICAL PICTURE

- Difficulty obtaining an erection, maintaining one through completion, or achieving rigidity sufficient for penetration.
- Gradual onset, absent morning and nocturnal erections, and consistency across situations point toward an organic vascular cause.
- Abrupt onset with preserved nocturnal erections, or normal function alone or with a different partner, suggests a psychogenic driver.
- Performance anxiety creates spectatoring, in which self-monitoring during sex diverts attention away from erotic stimuli.
- Avoidance of intimacy, relationship conflict, shame, and depressed mood commonly accompany and amplify the dysfunction.
- Men often present first for an unrelated complaint; direct, matter-of-fact inquiry is usually needed to elicit the problem.

DIAGNOSTIC CRITERIA AT A GLANCE

- At least one of three symptoms on nearly all occasions of partnered sex: difficulty obtaining or maintaining erection, or decreased rigidity.
- Symptoms must persist for a minimum of about 6 months and occur in roughly 75-100% of sexual encounters.
- The dysfunction must cause clinically significant distress in the individual; distress is required, not merely reduced function.
- Not better explained by a nonsexual mental disorder, severe relationship distress, other stressors, a substance, or a medical condition.
- Specify lifelong versus acquired, generalized versus situational, and severity as mild, moderate, or severe.

NEUROBIOLOGY & PHYSIOLOGY

- Erection is a nitric oxide dependent parasympathetic S2-S4 event: NO raises cGMP, relaxing cavernosal smooth muscle for inflow.
- **PDE5 inhibitors** block cGMP breakdown, amplifying that response but requiring intact nerves, endothelium, and sexual stimulation.
- Endothelial dysfunction makes ED a sentinel marker of coronary disease, typically preceding cardiac events by about 3-5 years.
- Diabetic neuropathy, pelvic surgery, radiation, and spinal cord injury damage the neural and vascular pathways directly.
- Hypogonadism, hyperprolactinemia, and thyroid disease reduce libido and erectile capacity and should be screened biochemically.
- Common iatrogenic causes include SSRIs, thiazides, beta blockers, finasteride, antipsychotics, and chronic opioid therapy.

PSYCHOLOGICAL MECHANISMS

- Performance anxiety triggers sympathetic outflow and catecholamine-mediated vasoconstriction, directly opposing erection.
- A single failure can establish anticipatory anxiety, producing a self-perpetuating cycle of expectation and further failure.
- Spectatoring replaces sensory absorption with self-evaluation, and sensate focus is designed specifically to reverse it.
- Relationship conflict, partner blame, and secrecy about the problem maintain avoidance and worsen outcomes over time.
- Rigid masculinity norms and unrealistic expectations drawn from pornography inflate performance standards and shame.

DIFFERENTIAL & COMORBIDITY

- Separate from low sexual desire, premature or delayed ejaculation, and from failures occurring only with one specific partner.
- Screen for cardiovascular disease, diabetes, obesity, obstructive sleep apnea, and metabolic syndrome in every new presentation.
- Review medications and substances: alcohol, tobacco, opioids, stimulants, SSRIs, and antihypertensives are frequent contributors.
- **Major depressive disorder** and anxiety disorders both cause and result from ED, and SSRIs then compound the dysfunction.
- Treat ED as a cardiovascular red flag: obtain lipids, A1c, and blood pressure and assess exercise capacity before resuming sex.

Treatment EVIDENCE-BASED MANAGEMENT

PHARMACOLOGIC

- **PDE5 inhibitors** are first-line: **sildenafil 25-100 mg** or **tadalafil 10-20 mg** as needed, or tadalafil 2.5-5 mg daily.
- Absolute contraindication with nitrates and caution with alpha blockers; counsel on headache, flushing, dyspepsia, and priapism.
- **Testosterone** replacement is indicated only for hypogonadism confirmed on two morning levels and can augment PDE5 response.
- Second-line options are **intracavernosal alprostadil**, intraurethral alprostadil, and vacuum erection devices.
- Switch or dose-reduce offending agents: **bupropion** or **mirtazapine** for SSRI-induced dysfunction, or add a PDE5 inhibitor.

PSYCHOTHERAPY

- **Sensate focus** removes the intercourse demand and rebuilds nondemand touch in graded steps over several weeks.
- **CBT** targets performance anxiety, catastrophic prediction, and avoidance and improves outcomes when added to PDE5 therapy.
- Couples therapy addresses communication, resentment, mismatched expectations, and the partner's role in maintaining avoidance.
- Mindfulness-based sex therapy reduces spectatoring by training present-moment attention to bodily sensation during sex.
- Combined medical and psychological treatment outperforms either alone, especially in acquired psychogenic presentations.

ADJUNCT & SUPPORTIVE

- Measure severity and response with the **IIEF-5**, also called the Sexual Health Inventory for Men, at baseline and follow-up.
- Weight loss, aerobic exercise, smoking cessation, and a Mediterranean diet produce clinically meaningful erectile improvement.
- Treat obstructive sleep apnea with CPAP and optimize glycemic and blood pressure control to improve endothelial function.
- Penile prosthesis implantation is definitive after failure of oral, injectable, and device therapy, with high satisfaction rates.
- Avoid unregulated supplements and internet-sourced tablets, which are frequently adulterated with undisclosed PDE5 inhibitors.

CLINICAL PEARLS

- New ED is a cardiovascular warning; work up the heart before writing the prescription.
- Preserved nocturnal and morning erections point toward a psychogenic driver.
- Nitrates plus a PDE5 inhibitor can be fatal; ask about them every single time.

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NOTE

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