

Erectile Dysfunction I

EPIDEMIOLOGY AND PREVALENCE:

Epidemiological data have shown a high prevalence and incidence of Erectile dysfunction (ED) worldwide.

The incidence rate of ED (new cases per 1,000 men annually) was 26 in the long-term data from the MMAS study (Massachusetts Male Aging Study).

DEFINITION AND CLASSIFICATION:

Erectile dysfunction is defined as the persistent inability to attain and maintain an erection sufficient to permit satisfactory sexual performance.

ED may affect psychosocial health and have a significant impact on the QoL of patients and their partners.

There is established evidence that the presence of ED increases the risk of future cardiovascular (CV) events including myocardial infarction, cerebrovascular events, and all-cause mortality, with a trend towards an increased risk of CV mortality.

Erectile dysfunction is commonly classified into three groups based on aetiology: organic, psychogenic and mixed ED.

RISK FACTORS:

ED is associated with unmodifiable and modifiable common risk factors including age, diabetes mellitus, dyslipidaemia, hypertension, CV disease, body mass index/obesity/waist circumference, MetS, hyperhomocysteinemia, lack of exercise, and smoking.

Furthermore, an association between ED status and some drugs (thiazide diuretics, β -blockers, psychotropic drugs) and some diseases (atrial fibrillation, hyperthyroidism, vitamin D deficiency, hyperuricemia, depression and anxiety disorders, chronic kidney disease, rheumatic disease, stroke, chronic obstructive pulmonary disease ...) have been reported.

ED is also frequently associated with some urological conditions and procedures.

PATHOPHYSIOLOGY:

The pathophysiology of ED may be vasculogenic, neurogenic, anatomical, hormonal, drug-induced and/or psychogenic.

DIAGNOSTIC EVALUATION:

BASIC WORK-UP

1. Medical and sexual history
2. Physical Examination
3. Laboratory Testing

ADVANCED WORK-UP

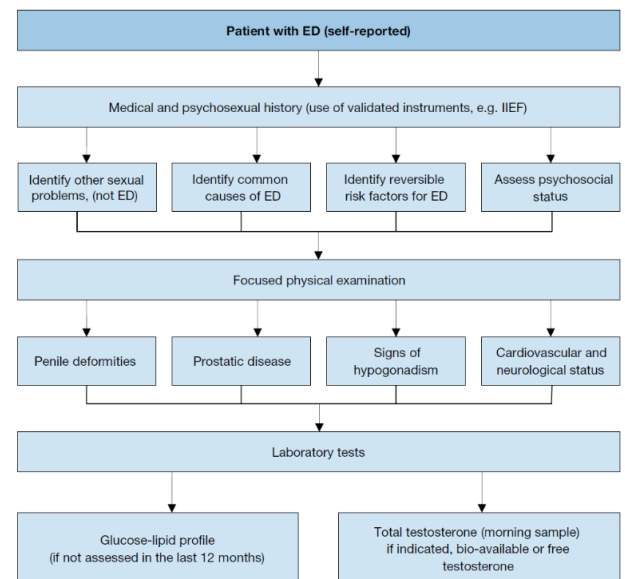
1. Psychopathological and psychosocial assessment
2. Dynamic duplex ultrasound of the penis
3. Intracavernous injection test
4. Nocturnal penile tumescence and rigidity test
5. Arteriography and dynamic infusion cavernosometry or cavernosography

Indications for specific diagnostic tests for ED:

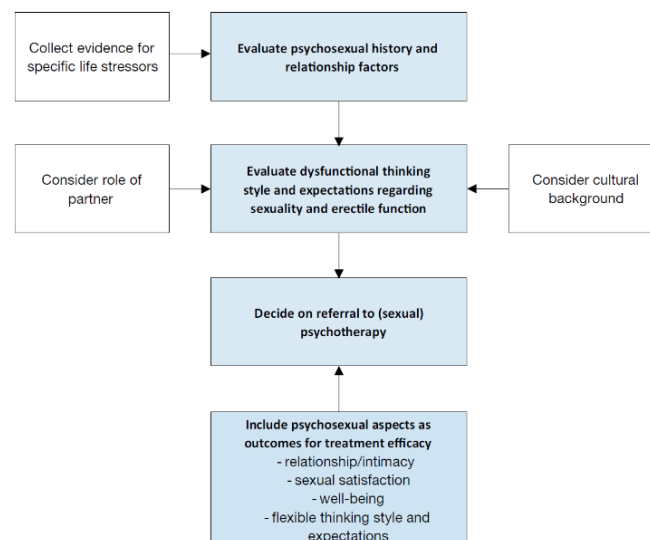
- Primary ED (not caused by acquired organic disease or psychogenic disorder).
- Young patients with a history of pelvic or perineal trauma
- Penile deformities that might require surgical correction
- Complex psychiatric or psychosexual disorders.
- Complex endocrine disorders.
- Medico-legal reasons.
- Specific tests may be indicated at the request of the patient or their partner.

Summary of evidence	LE
Erectile dysfunction is common worldwide.	2b
Erectile dysfunction shares common risk factors with cardiovascular disease.	2b
Lifestyle modification (regular exercise and decrease in BMI) can improve erectile function.	1b
Erectile dysfunction is a symptom, not a disease. Some patients may not be properly evaluated or receive treatment for an underlying disease or condition that may be causing ED.	4
Erectile dysfunction is common after RP, irrespective of the surgical technique used.	2b
Erectile dysfunction is common after external radiotherapy and brachytherapy.	2b
Erectile dysfunction is less common after cryotherapy and high-intensity focused US.	2b

Minimal diagnostic evaluation (basic work-up) in patients with ED



Psychopathological and psychosocial assessment



Recommendations	Strength rating
Take a comprehensive medical and sexual history in every patient presenting with erectile dysfunction (ED). Consider psychosexual development, including life stressors, cultural aspects, and cognitive/thinking style of the patient regarding their sexual performance.	Strong
Use a validated questionnaire related to ED to assess all sexual function domains (e.g., International Index of Erectile Function) and the effect of a specific treatment modality.	Strong
Include a focused physical examination in the initial assessment of men with ED to identify underlying medical conditions and comorbid genital disorders that may be associated with ED.	Strong
Assess routine laboratory tests, including glucose and lipid profile and total testosterone, to identify and treat any reversible risk factors and lifestyle factors that can be modified.	Strong