

# ERECTILE DYSFUNCTION

- The persistent inability to achieve or maintain a penile erection sufficient for sexual intercourse/ parasympathetic
- **Mechanism of erection** :- Expansion of sinusoidal spaces against tunica albuginea (inside corpus cavernosum) → decrease Venous outflow & trapping blood within the erect Penis.
- During ejaculation; alkaline prostatic secretion → Spermatozoa → seminal vesicle secretions // Volume is 2-5 mL
- Erectile dysfunction is a common problem among men of all ages, but increases with age (but not completely !!)

## → Causes :- IMPOTENCE

**Inflammatory** → prostatitis; to avoid pain

**Mechanical** → Peyronie's disease; fibrous scar tissue → curved penis; to avoid pain

**Psychological** → depression, anxiety, lack of sexual interest, stress

**Occlusive factors** → **Arteriogenic**: HTN, MI, dyslipidemia, DM, smoking ... **Venogenic**: impairment of veno-occlusive mechanism

**Trauma** → pelvic fracture, spinal cord injury, penile trauma.

**Extra factors** → Iatrogenic, aging, chronic renal failure, cirrhosis

**Neurogenic** → MS, Parkinson, tumors, spina bifida, peripheral neuropathy (DM, alcoholism)

**Chemical (drugs)** → thiazide diuretics, antihypertensive/ CCBs, Anti-androgens (finasteride), Antidepressants, Digoxin

**Endocrine** → hypogonadism, hyperprolactinemia, hypo and hyperthyroidism, DM.

## → Physical exam :

Rule out organic cause ▶ CVS, abdominal and neurologic exams, DRE for prostate and External genitalia, Bulbocavernous reflex (test Integrity of spinal Segment) ++> do investigations according to them

Rule out psychiatric cause ▶ by Hx, *Sudden* \*

## → Lab tests

HBA1c, PSA, hormone profile (testosterone, FSH, LH, Prolactin, TSH), serum chemistry panel (lipid profile, LFT, KFT).

## → Investigation

- **Doppler US**
- Nocturnal penile tumescence testing
- Biothesiometry
- Injection of Prostaglandin E1

## → Treatment

- Medical
  1. **Sildenafil / PDE5 Inhibitor** → Blocks breakdown of CGMP ... not for recent MI or stroke, using nitrate
  2. Hormone replacement therapy
- Devices
  1. Vacuum devices → ↑ Bld flow to Corpora Cavernosum
  2. Transurethral Therapy → Injection of PGE5 (cGMP)
  3. Intracavernous injection therapy
- Surgical
  1. Penile prosthesis → Implanted into corpora to provide Penile rigidity

↪ before 15-2 hrs of intercourse on empty stomach

**Retrograde ejaculation:** Failure of adequate bladder neck contraction

-: Dry ejaculation, Cloudy urine → **due to** Neurological, DM, Spinal Cord Injury, &-Blocker (-sulisin), TURB, Prostatectomy

**Do:** Presence of >10-15 sperm Per hpf in urine .. **Give** : Oral Adrenergic (ephedrine), ↑ Sympathetic tone of Bladder neck SMCs