



Simmelweis University
Department of Urology

Benign Prostatic Hyperplasia

Péter Nyirády



 **E B U Certified Clinic**

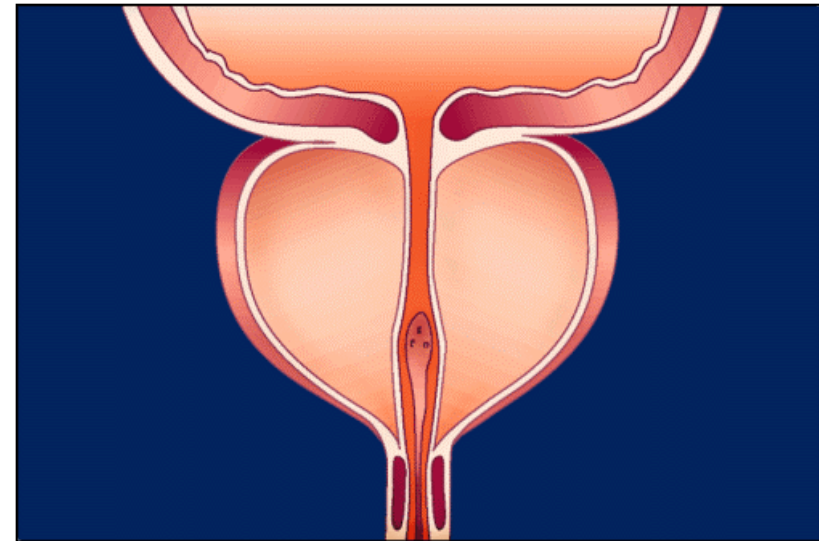
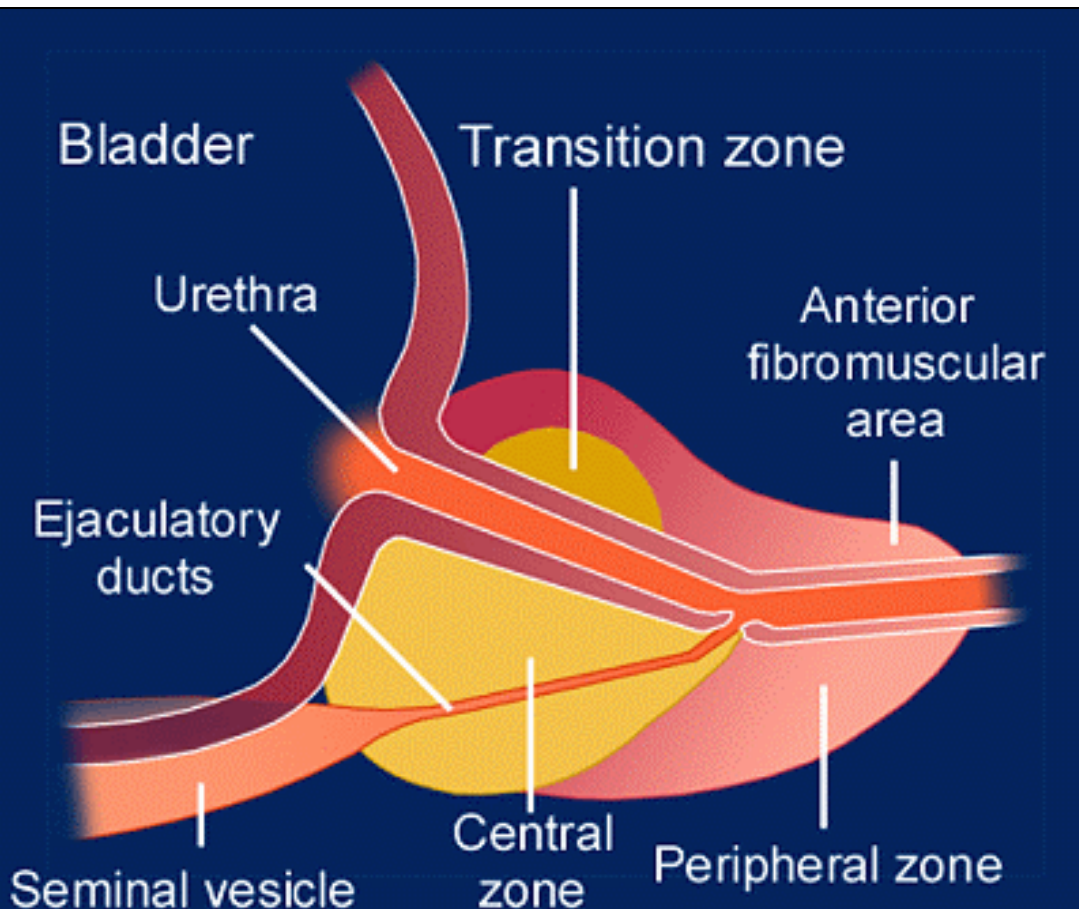


Certified Training Centre for Andrology





Anatomy of the prostate



Etiology **not known**

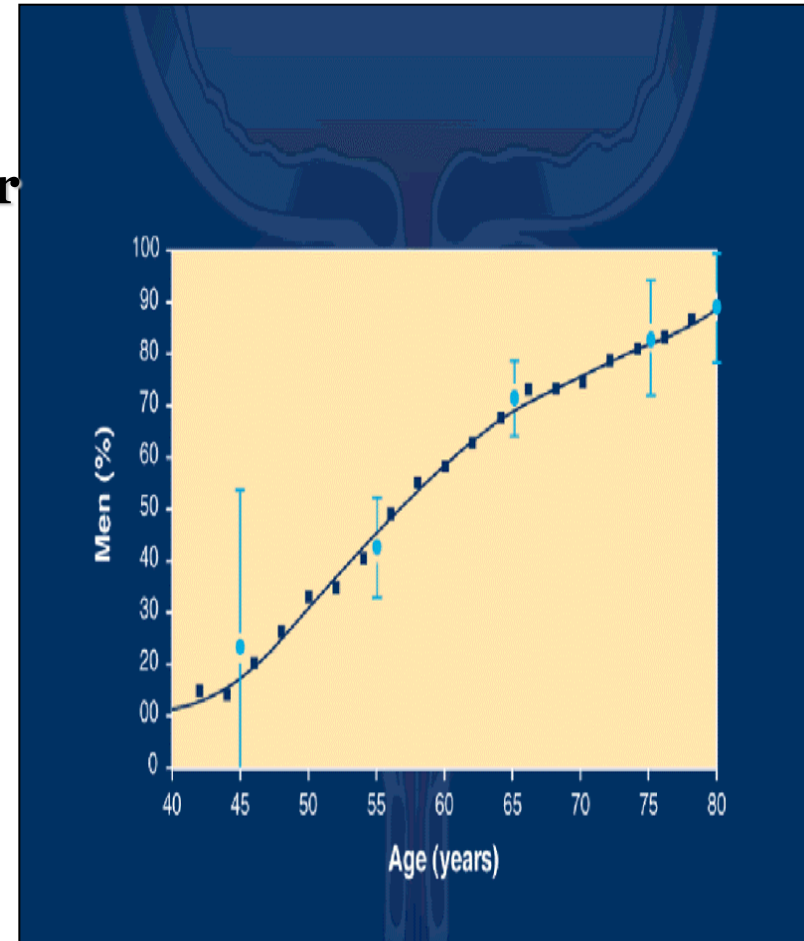


- Less apoptosis ← estrogens?
- Changing of stromal-epithelial ratio due to autocrine reasons?
- Abnormal stem-cell proliferation?
- Changing of Estrogen/Androgen ratio?

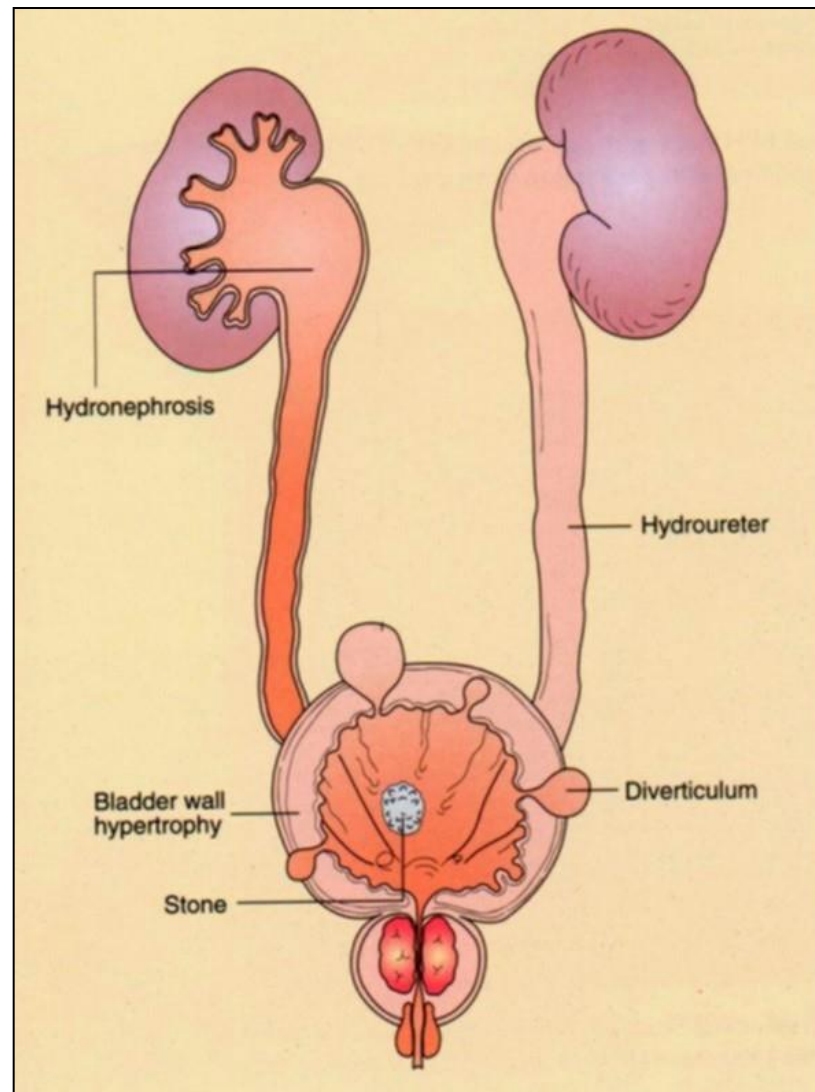
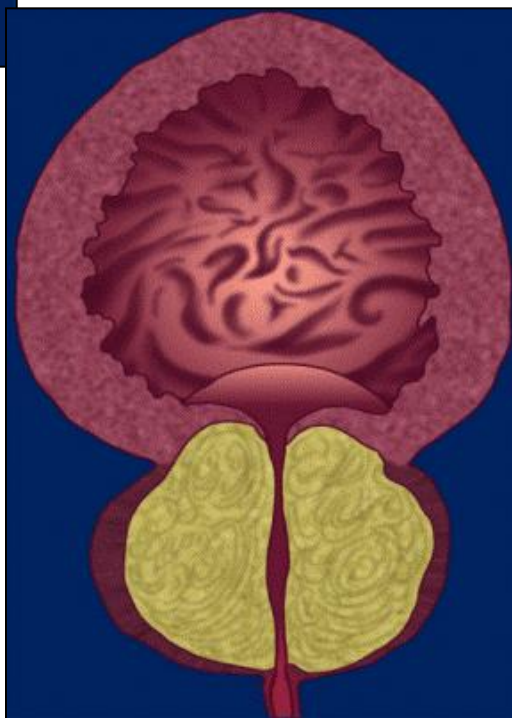
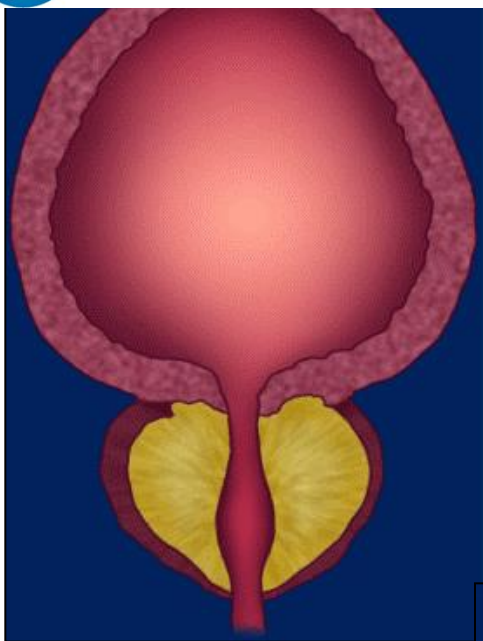


Epidemiology

- **6000 operations in Hungary per year**
- **Medical treatment in 50000 cases**
- **250- 280000 patients in Hungary**
- **at the age of 60-70**
 - **70% histologic changes**
 - **40% clinical symptoms**



Effects of BPH



Symptoms

Obstructive

- decreased, intermittent flow
- dribbling
- hesitancy
- residual urine

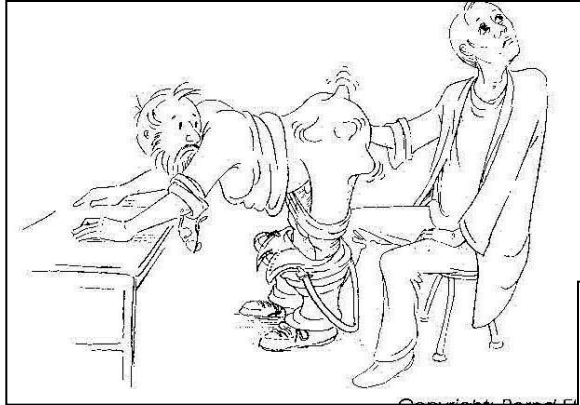


Irritative

- Nycturia
- Pollakisuria
- Urgency
- Dysuria



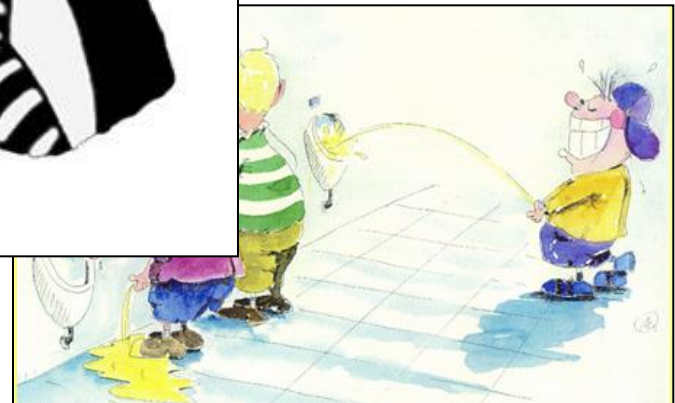
Diagnostics



Optional
examinations



stoscopy
dynamics
JS
psy
ay, IVP

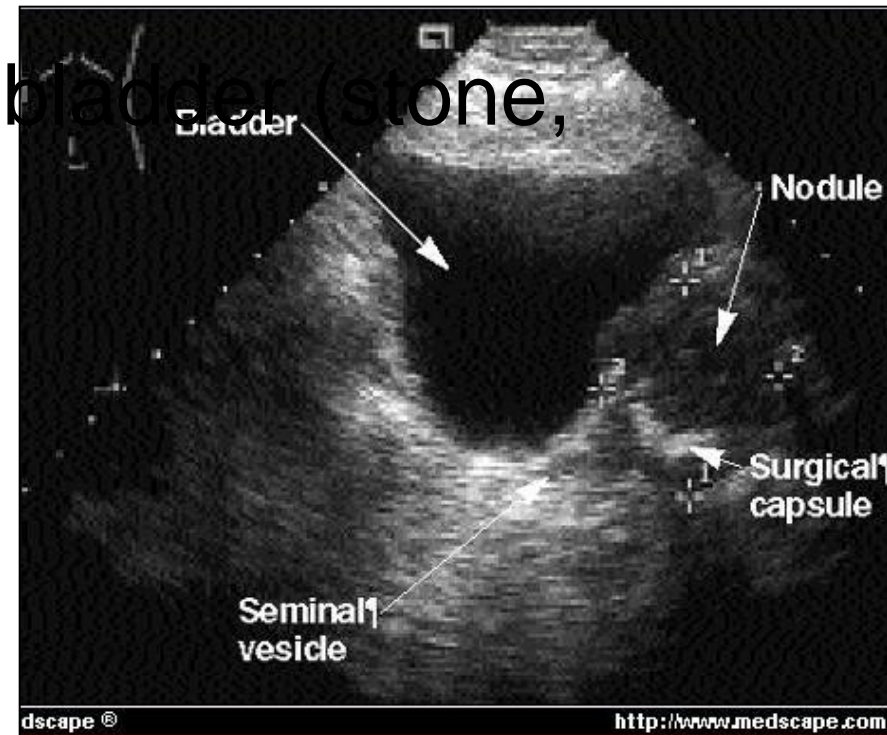


- History, (questionnaire)
- Physical and digital rectal examination
- Ultrasound transabdominal
- Uroflowmetry
- Residual volume (ultrasound)
- (PSA), laboratory



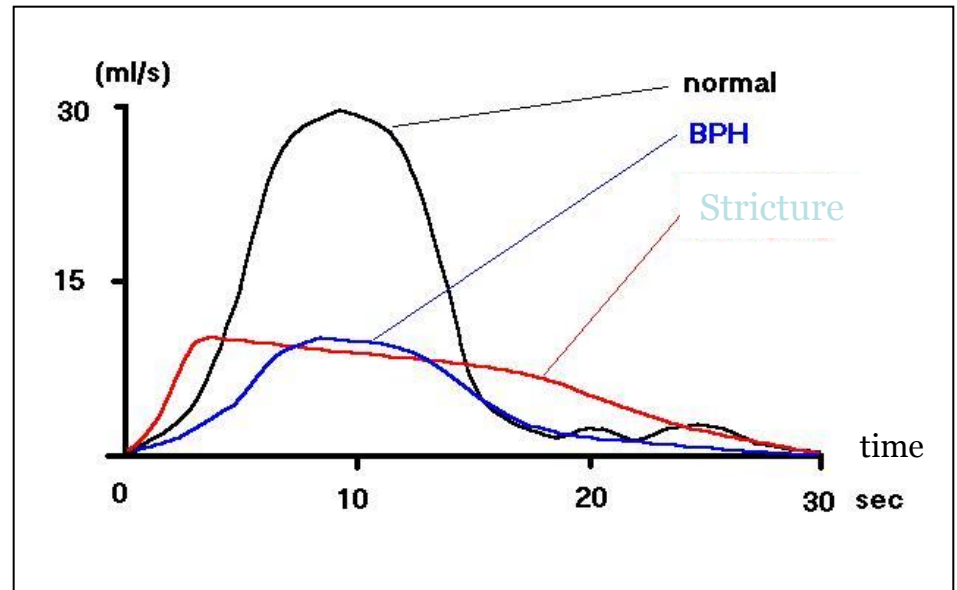
Imaging technology

- Transabdominal/ rectal US
- Prostate volume
- Residual urine
- Pathologic changes in bladder (stone, diverticuli)





Uroflowmetry





Differential diagnosis

- Prostate cancer !
- Urethral stricture
- Bladder stone
- Chronic prostatitis
- Bladder cancer (!)
- Bladder atonia
- Meatal stricture
- Phimosis
- Bladder diverticulum
- Cardial decompensation
- Diuretics
- Neurogen dysfunction after pelvic operations
- Parkinsonism

Therapy

- Watchful Waiting
- Pharmacotherapy
 - Phytotherapy
 - α - blockers
 - 5- α reductase inhibitors
- Operation
 - Transurethral (TURP, TUIP,...)
 - Open
- Alternative medicine



Phytotherapy

- *Sabal serrulata*



- *Urtica dioica*



- *Pygeum africanum*

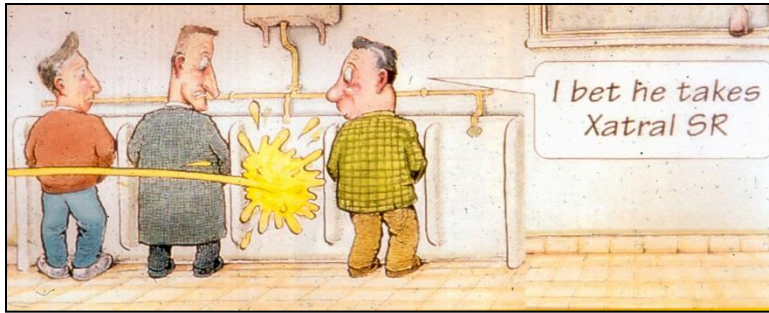


- *Hypoxis rooperi*



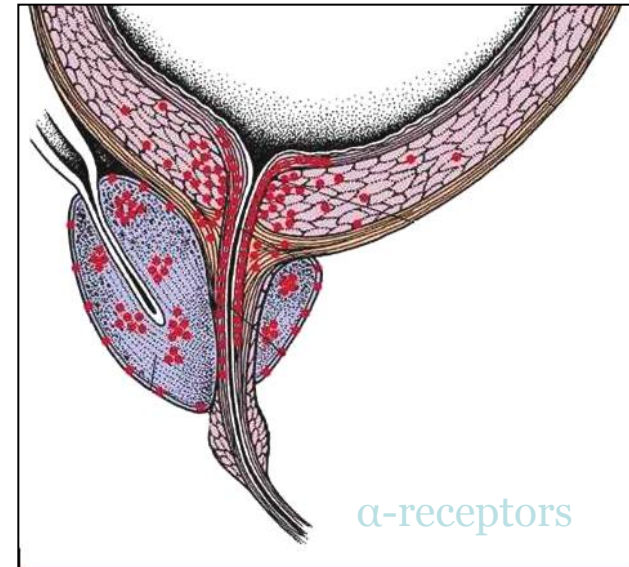
- *Cucurbitae pepo*





α -blockers

- First choice if drugs necessary
- Quick effect
- Decreases symptoms
- Increases peak flow
- Other effects (increases erection)





5 α -reductase inhibitors

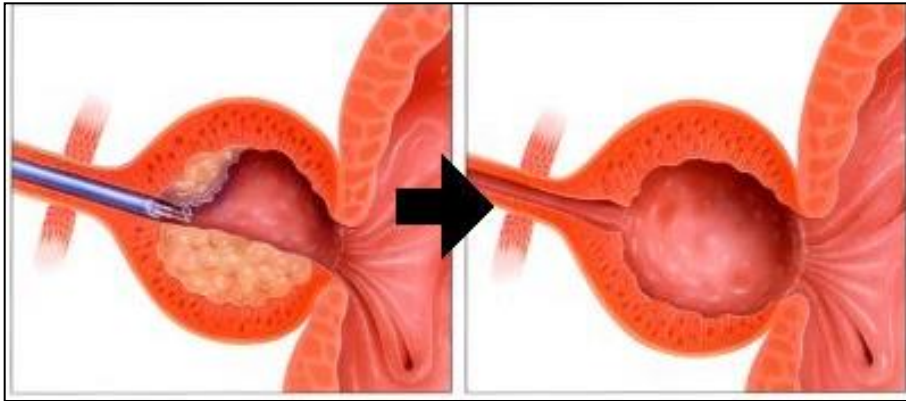
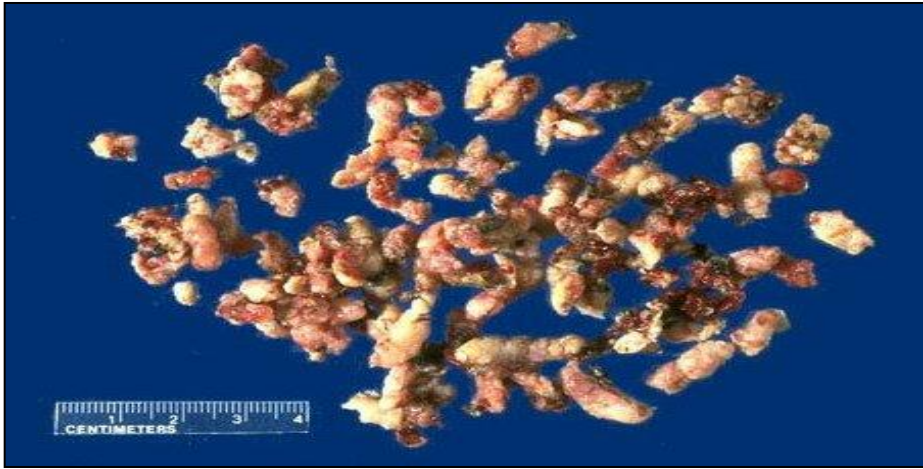
- Slowly acting but permanent effect
- Inhibits transformation of testosterone-dihydrotestosterone
- Can cause 30% volume reduction
- Effective only over 50 ml Pvol
- **Decreases PSA by 40-50%**
- Decreases libido and erectile function



Operation

- Absolute indications of surgical treatment
 - Urine retention
 - Bladder stone, -diverticuli
 - Hydronephrosis
 - Renal failure
 - Recidive UTI
 - Macroscopic haematuria

TURP - TransUrethral Resection of the Prostate

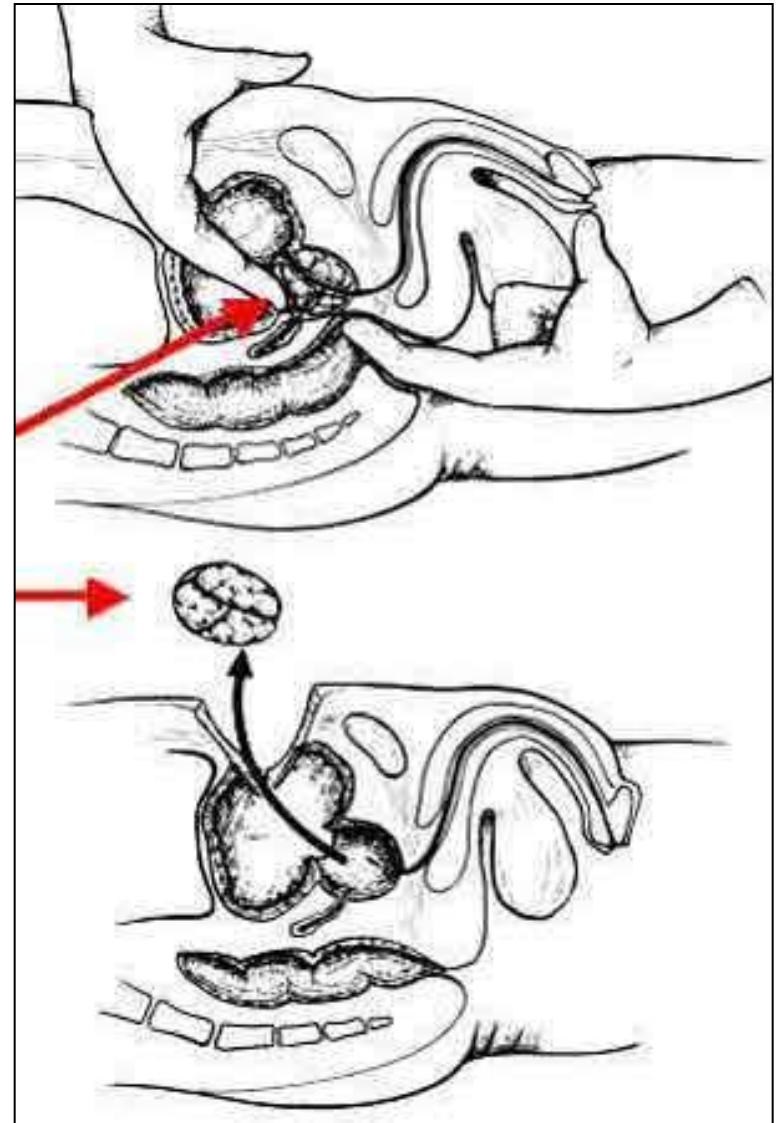


- „Gold standard”
- under 70-80 g
- CAVE TUR syndrome!



Open adenomectomy

Over 70-90 g





Alternative (minimal invasive) technics

- **TUIP** Transurethral Incision of the Prostate
- **TUVP** Transurethral Electrovaporisation
- **TUMT** Transurethral Microwave Thermotherapy
- **TUNA** Transurethral Needle Ablation
- **Stents**
- **HIFU** High-Intensity Focused Ultrasound



Thank you for your attention!

