Bladder Matters: Urinary Incontinence and Pelvic Organ Prolapse

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Objectives

- Prevalence and Incidence of Urinary Incontinence and Pelvic Organ Prolapse (POP)
- Different types of Urinary Incontinence
- Recognized and diagnosed POP
- Work up, treatment algorithm
- Treatments available: surgical and non surgical

Urinary Incontinence (UI)

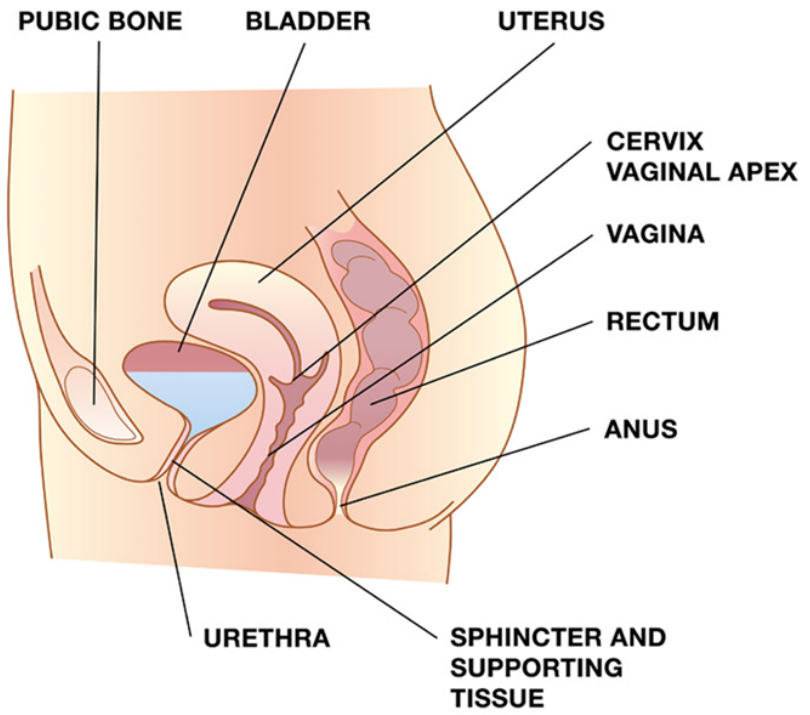
- The accidental leakage of urine
- Affects millions of Americans, the majority of them women
- 1 out of 3 women over the age of 45

Urinary Incontinence

- Several types
- Very common
- Embarrassment
- Think it is just part of getting older
- Are not aware that there are treatments
- Affects both men & woman
- Treated differently

Anatomy review

- Bladder stores the urine
- Sphincter muscle holds the urine in the bladder
- Urethra is the tube in which urine is passed out of the body



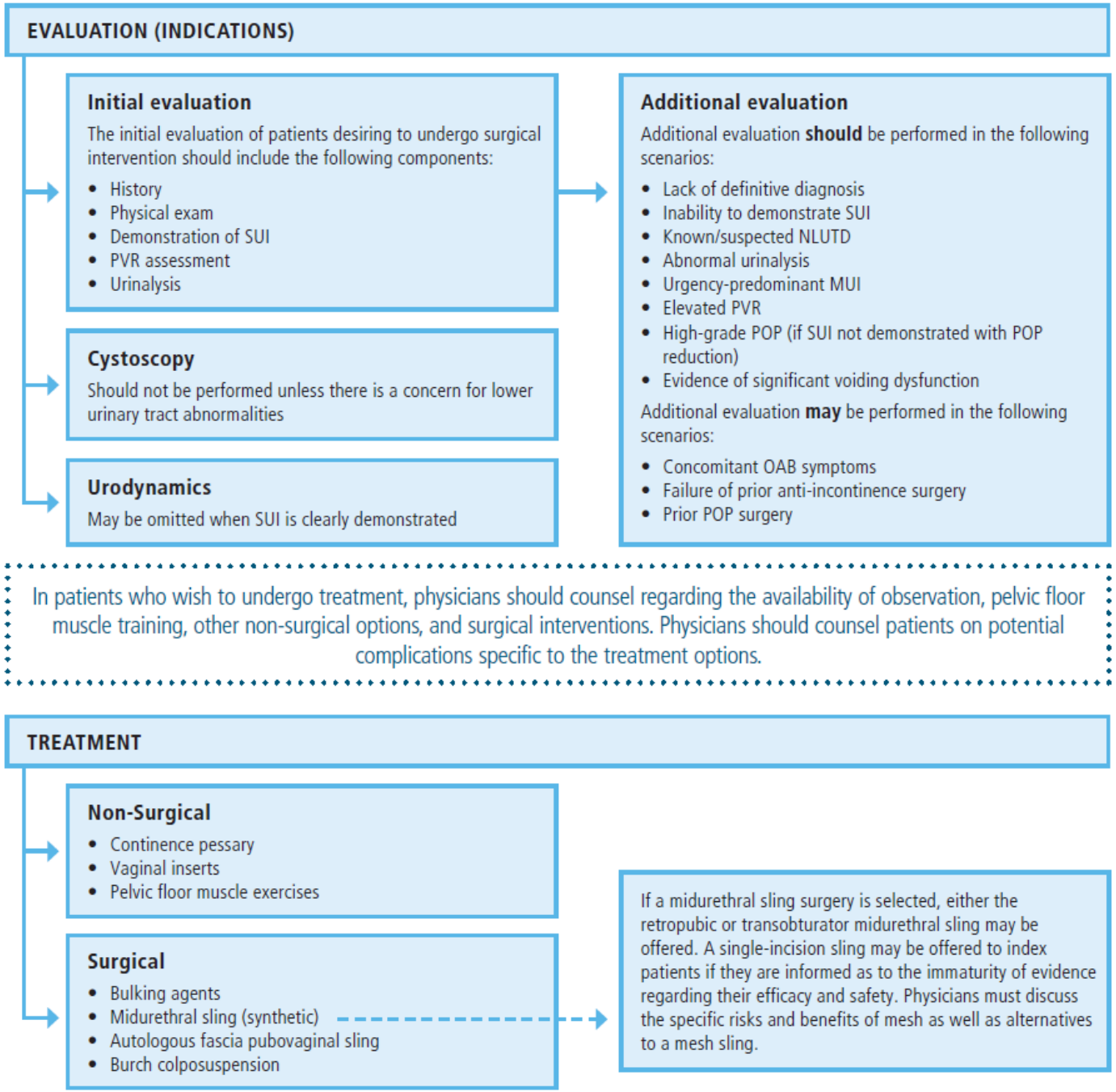
Types

- Stress Urinary In
- Urgency/Freque
- Mixed Incontine
- Overflow Incont
- Functional Incon

Evaluation

- History
- Physical exam
- Voiding Diary
- Urinalysis
- Weighted Pad Test
- Cough Stress Test – supine and standing
- Bladder Scan – post-residual volume (PVR)
- Urodynamic Study (UDS)

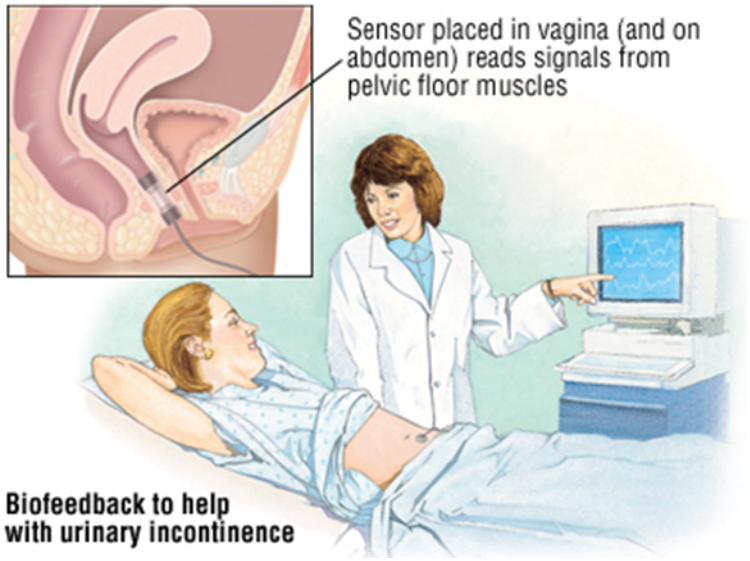
Female Stress Urinary Incontinence: AUA/SUFU Evaluation and Treatment Algorithm

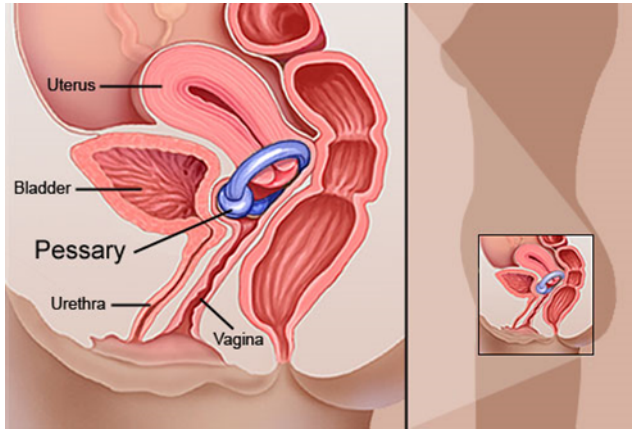


SUI

- Behavioral modification
  - Lose weight
  - Stop smoking
- Kegel Exercises
- Biofeedback
- Injectables
- Surgery

Pelvic Floor PT (Kegel Exercises) Biofeedback





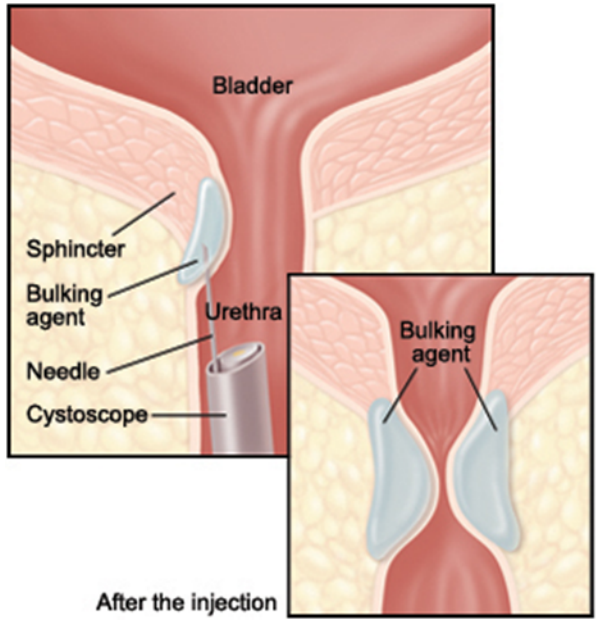
Non-Surgical/Procedural Options

Urethral bulking agents

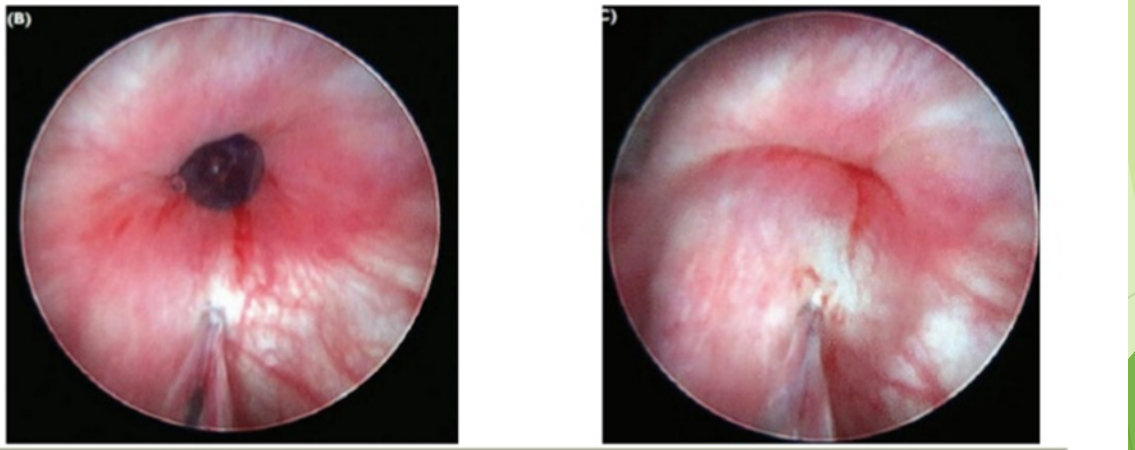
- Collagen, Contigen, Macroplastique, Durasphere
- Injection into periurethral tissues
- Often need repeat treatments
- Durability not long-term
- Best candidates = elderly, poor surgical candidates
- Autologous fat, future applications MSC

Treatment Options

- Bulking Agents – indicated for ISD

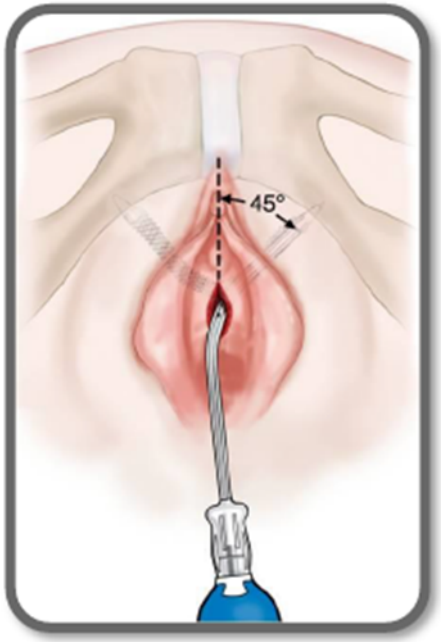


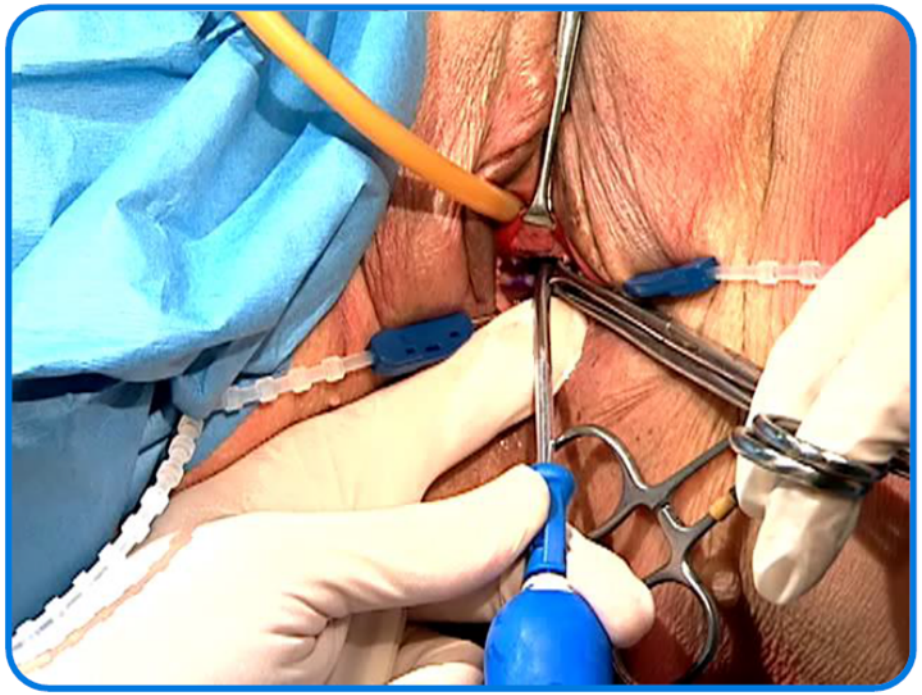
– Submucosal into bladder neck or periurethral to increase urethral resistance.

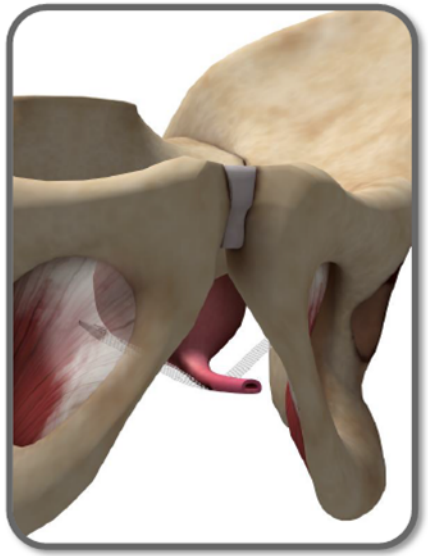


By Moh.Metwaly, MBBcH Revised by M.A.Wadood , MD, MRCS

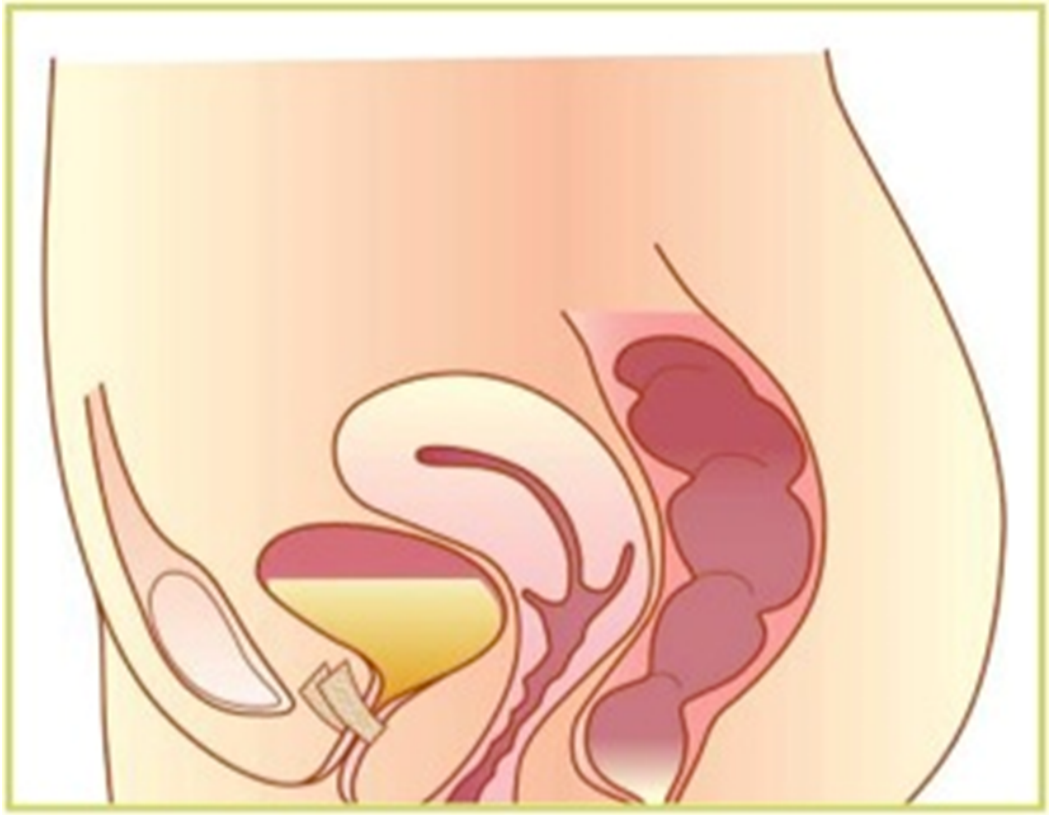
Vaginal sling
Mid Urethral sling







Goal of Midurethral sling



Support the urethra and restore normal anatomical angle

Documented clinical success rates for a retropubic slings is approximatley 90%- 5 years

Medical treatment of SUI

- No FDA approved drug
- Duloxetine-selective norepinephrine/serotonin dual reuptake inhibitor
- Used for depression
- Available in Europe
- Increases urethral closure
- Effectiveness proven

Overative Bladder syndrome
Urge Incontinence

- Strong urge to urinate with little warning
- Difficulty postponing urination
- May or may not leak

Frequency

- 8 or more visits to the toilet per 24 hours

Nocturia

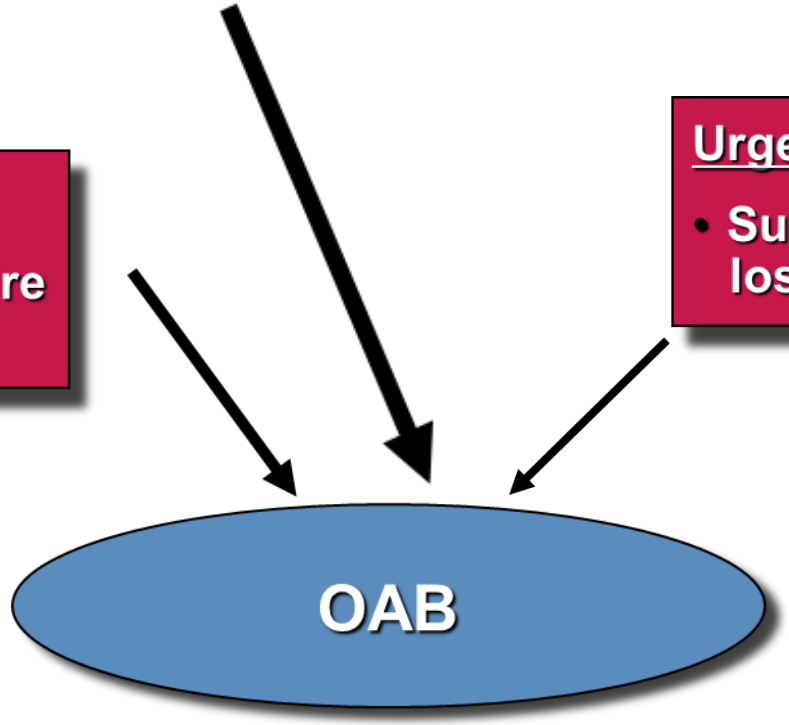
- 2 or more visits to toilet during sleeping hours

Urgency

- Sudden, strong desire to urinate

Urgency Incontinence

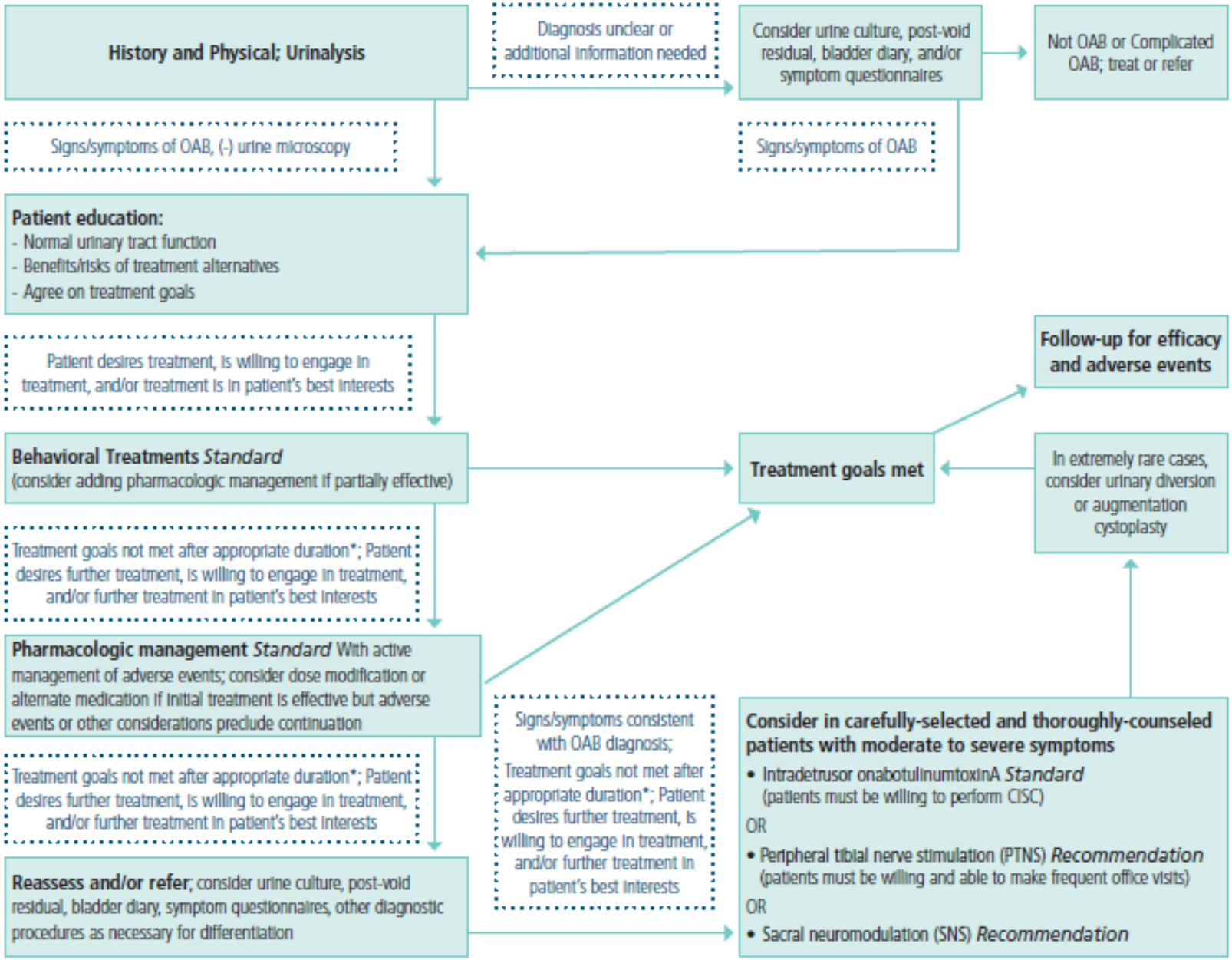
- Sudden & involuntary loss of urine



Overactive Bladder
Urge Incontinence

- Idiopathic
- Rule out other pathology for Refractory OAB
  - Damage to the bladder nerves, the nervous system, Damage to the muscles
  - MS, Parkinson's, DM, and stroke
  - Bladder infections, bladder stones, cancer
  - Enlarged prostate
  - Pelvic Organ Prolapse
- Aggravated by dietary factors

Diagnosis & Treatment Algorithm: AUA/SUFU Guideline on Non-Neurogenic Overactive Bladder in Adults



The complete OAB Guideline is available at www.AUAnet.org/Guidelines.

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*Appropriate duration is 8 to 12 weeks for behavioral therapies and 4 to 8 weeks for pharmacologic therapies

Treatment Options

- Timed voiding and bladder training
- Biofeedback

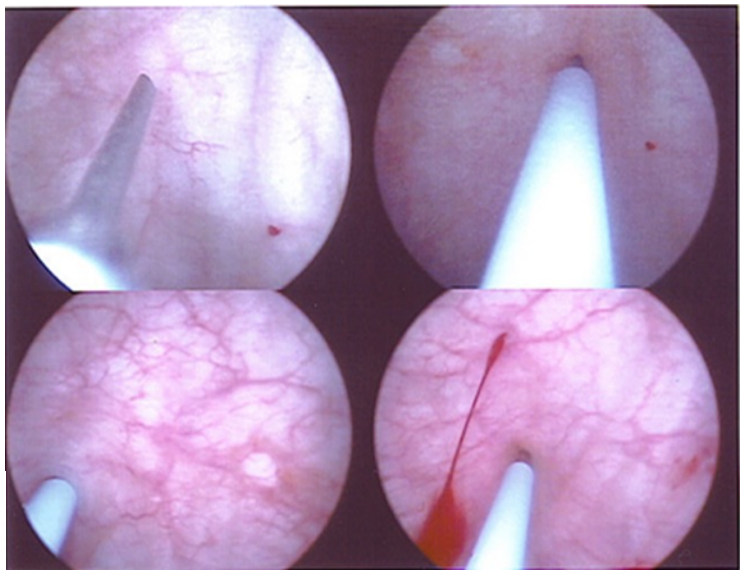
Treatment Options

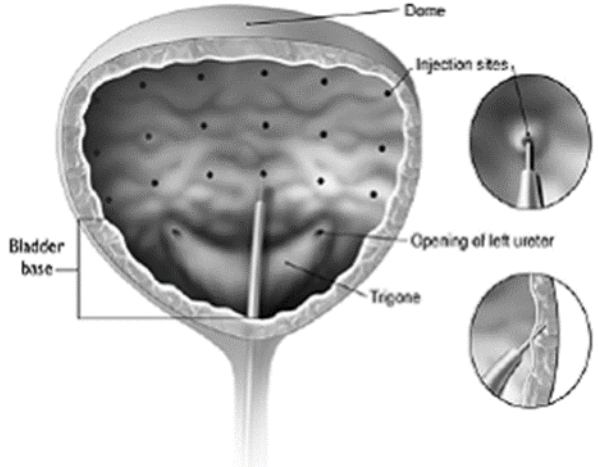
- Anticholinergics/Antimuscarinics
- Medications to inhibit contractions of an overactive bladder

Treatment Options

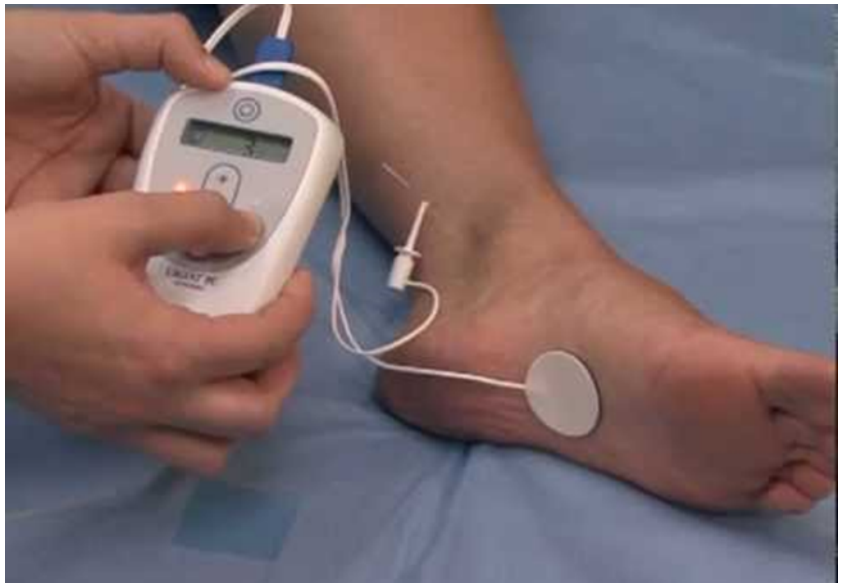
- Β3-adrenoceptor Agonists - Myrbetriq (mirabegron) – works by stimulating the Β3 receptors in the detrusor muscle of the bladder, causing relaxation of the bladder muscle during the storage phase of micturition cycle

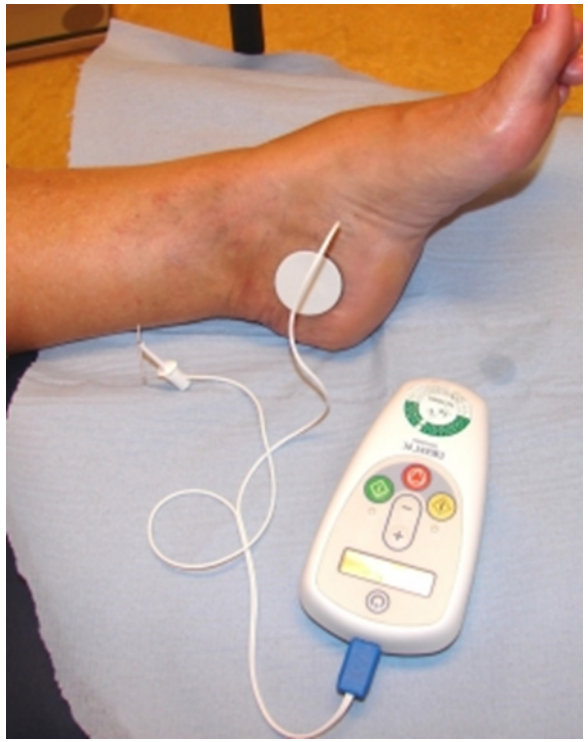
OAB Advance Therapies



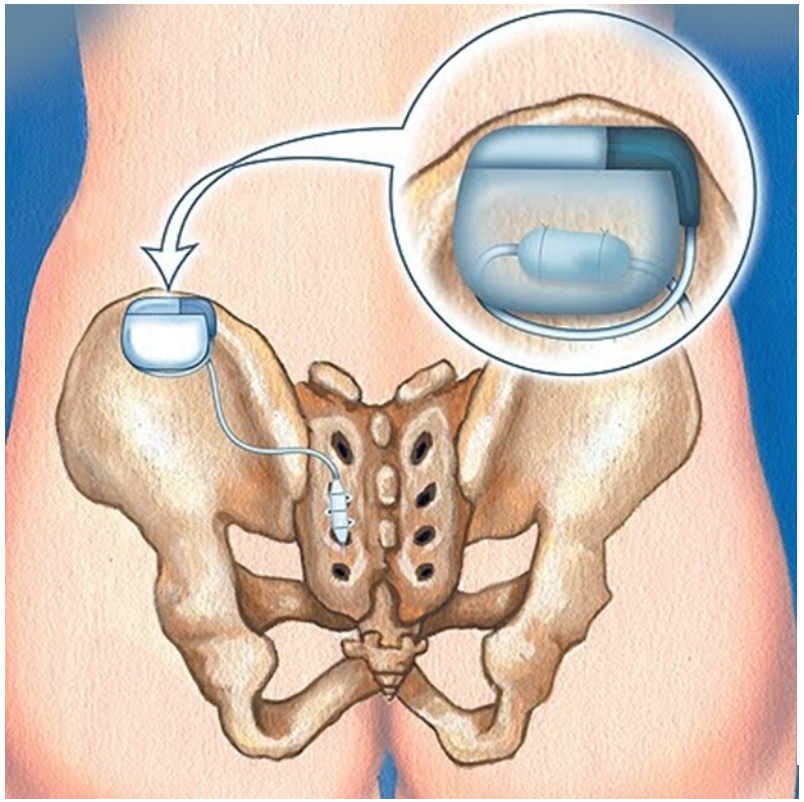


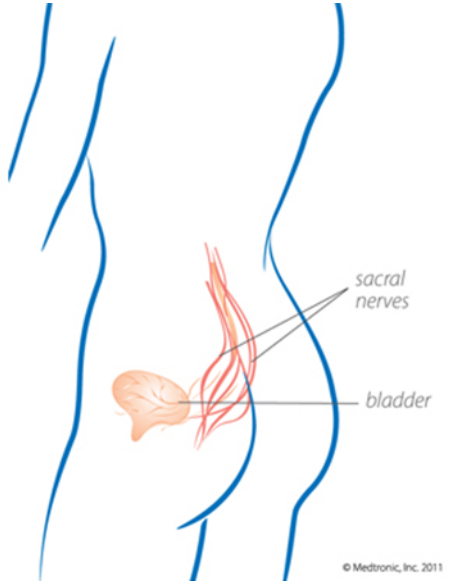
Percutaneous Tibial Nerve Stimulation

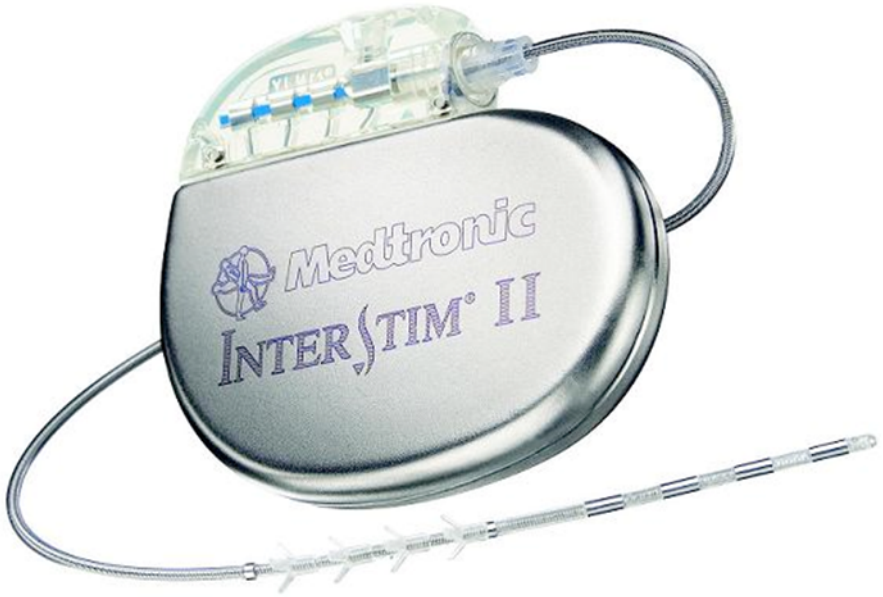




Sacral Nerve Stimulation Interstim







Special Consideration in the elderly
Transient Incontinence

- DIAPPERS

Delirium

Infection of urinary tract

Atrophic vaginitis

Pharmaceuticals

Psychological

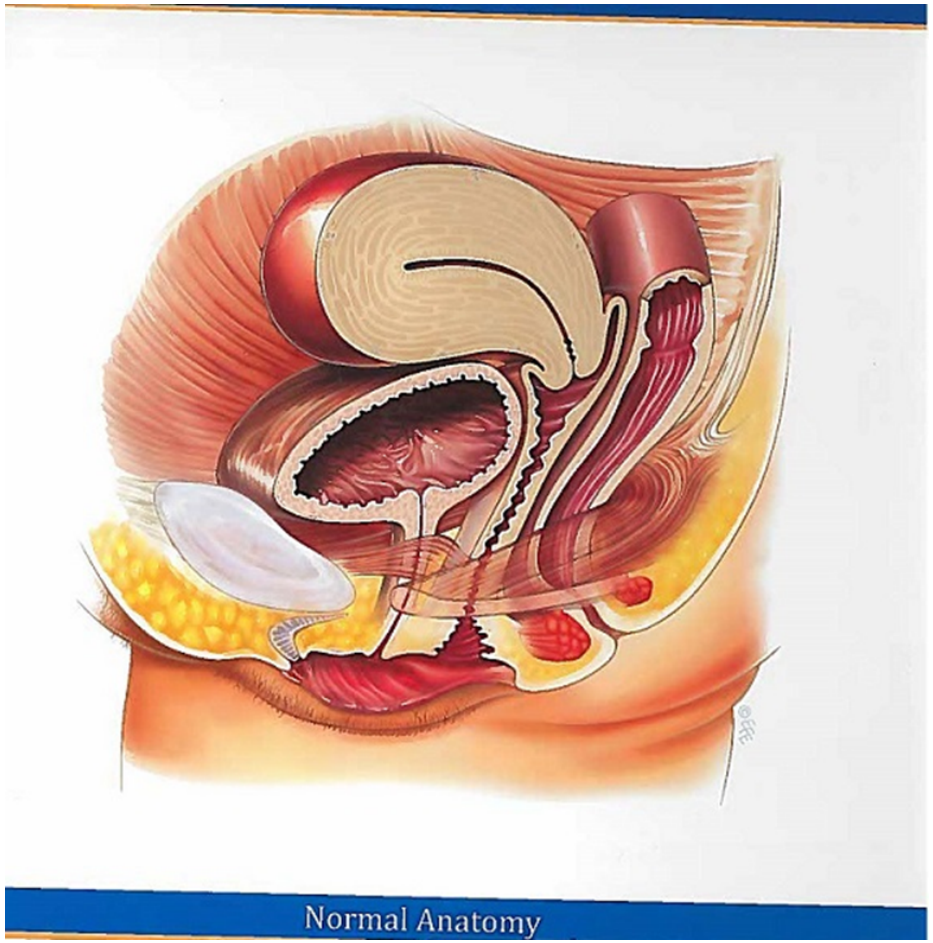
Excessive urine output (CHF, hyperglycemia)

Restricted mobility

Stool impaction


INCONTINENCE
HOT LINE
PLEASE HOLD!
EDGAR ARGO

Pelvic Organ Prolapse (POP)



Causes

- Weakened or damaged pelvic muscles and ligaments can cause pelvic organ prolapse.
- Loss of muscle tone
- Menopause and estrogen loss
- Multiple vaginal deliveries
- Obesity
- Family history/Genetics
- Pelvic trauma or previous surgery
- Chronic Coughing

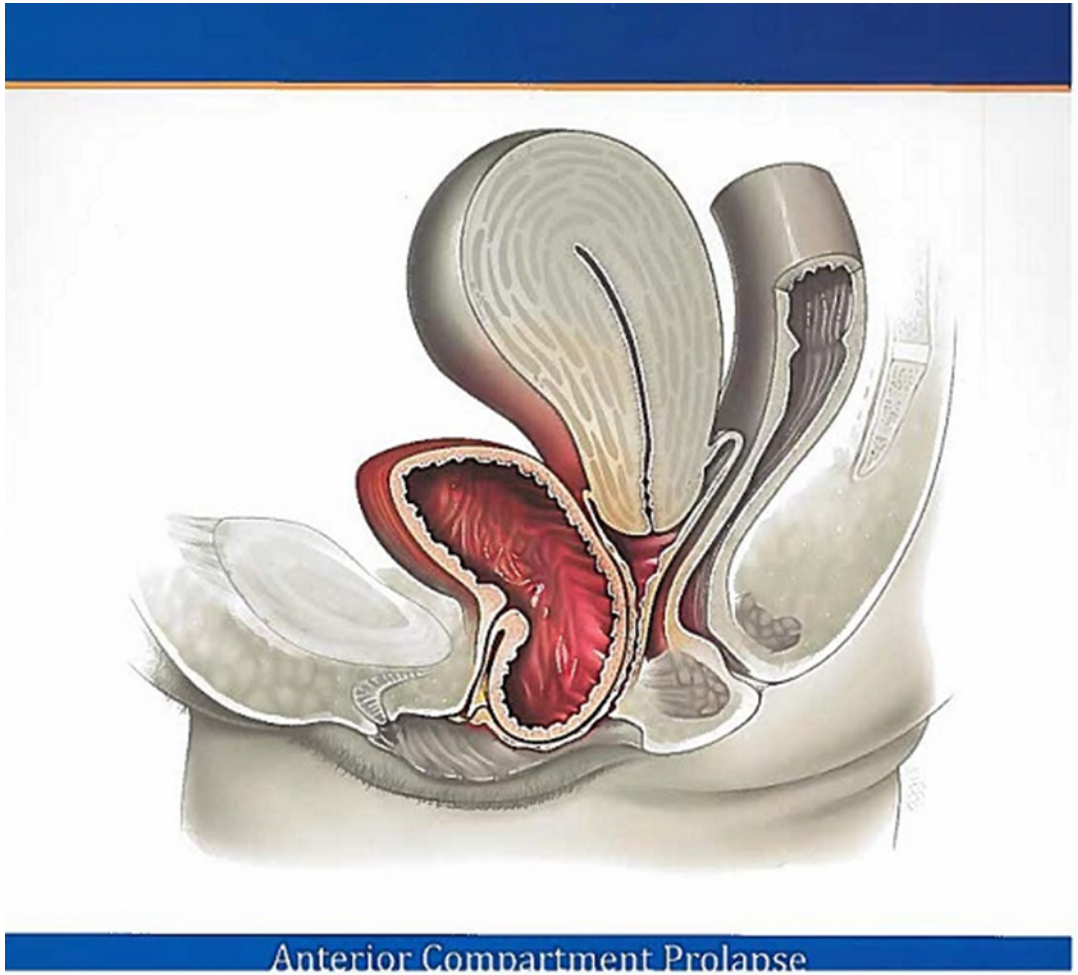
Symptoms

- A bulge or lump in the vagina
- A pulling or stretching feeling in the groin area
- Difficult or painful sexual intercourse
- Urinary or fecal incontinence
- Difficulty with bowel movements
- Delayed or slow urinary stream

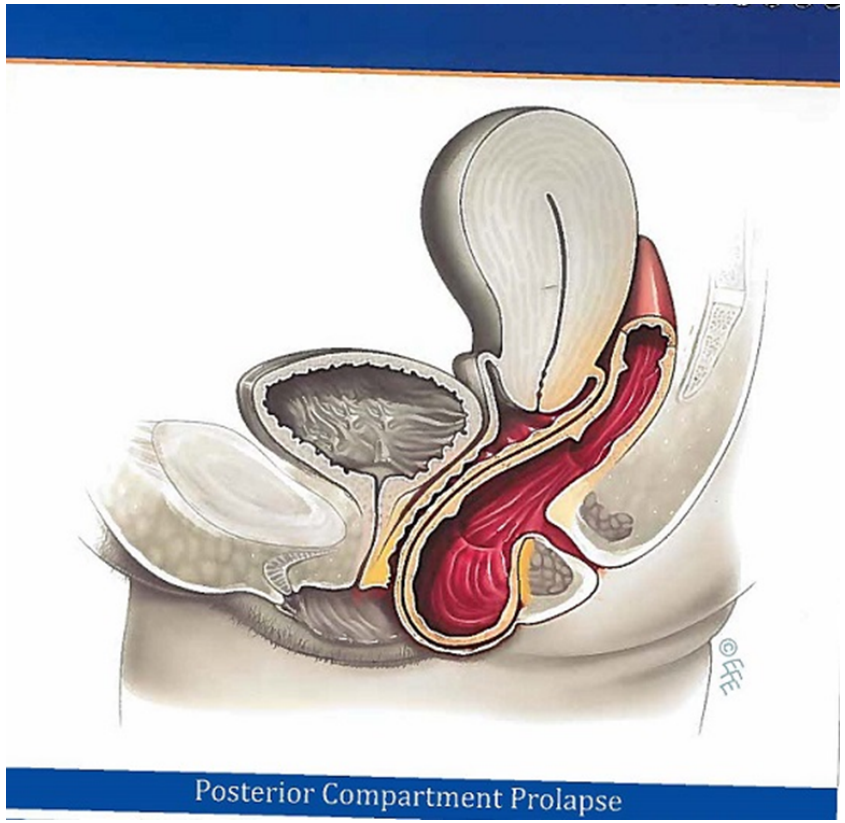
POP

- Anterior vaginal wall prolapse (cystocele)
- Posterior vaginal wall Prolapse (rectocele)
- Apical vaginal wall Prolapse (uterine prolapse, enterocele)

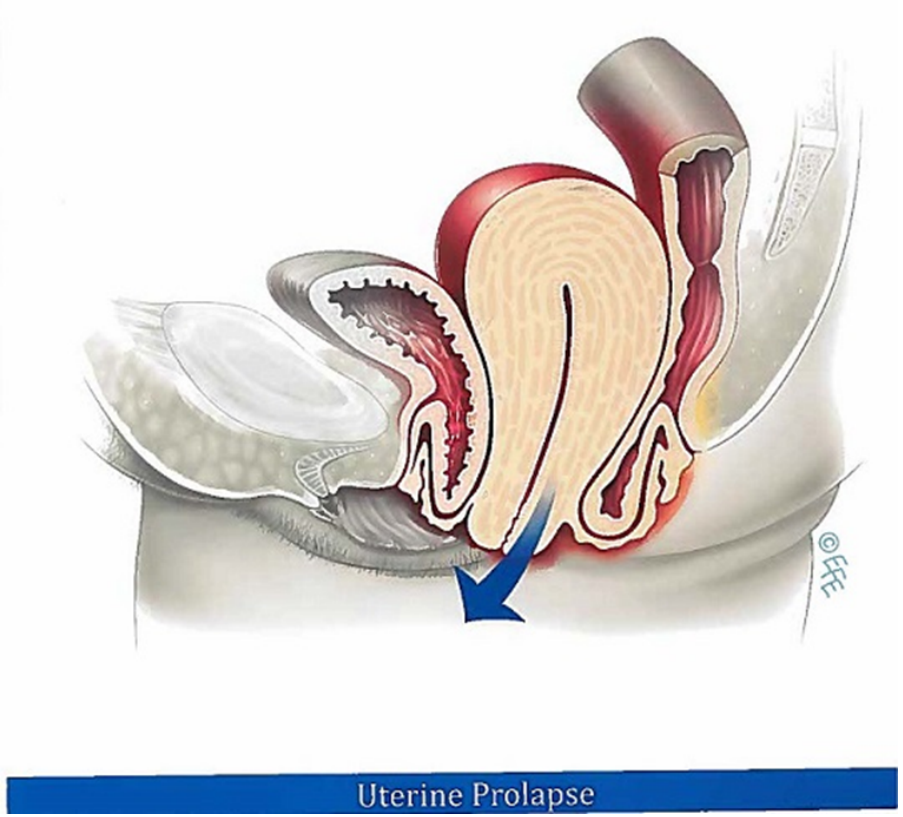
Anterior Prolapse
Cystocele



Posterior vaginal Prolapse (Rectocele)



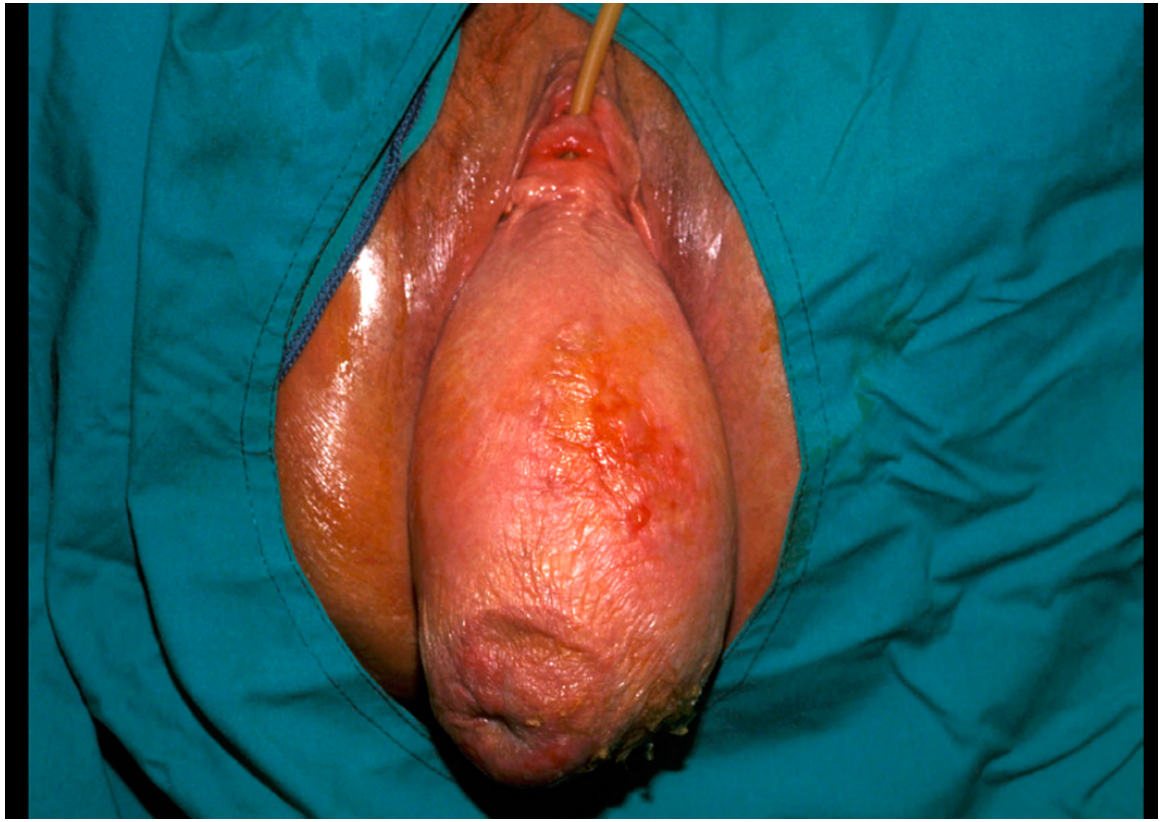
Complete uterine prolapse with anterior and posterior compartment



Staging of POP – POPQ Staging

- Should be done with maximum straining such as a very strong cough or Valsalva
- Stage 0 – no prolapse
- Stage 1 –most distal prolapse is more than 1 cm above hymen
- Stage 2 – most distal prolapse is between 1 cm above the 1 cm below hymen
- Stage 3 – most distal prolapse is more than 1 cm below the hymen but no further than 2 cm less than TVL
- Stage 4 – represents complete procidentia or vault eversion

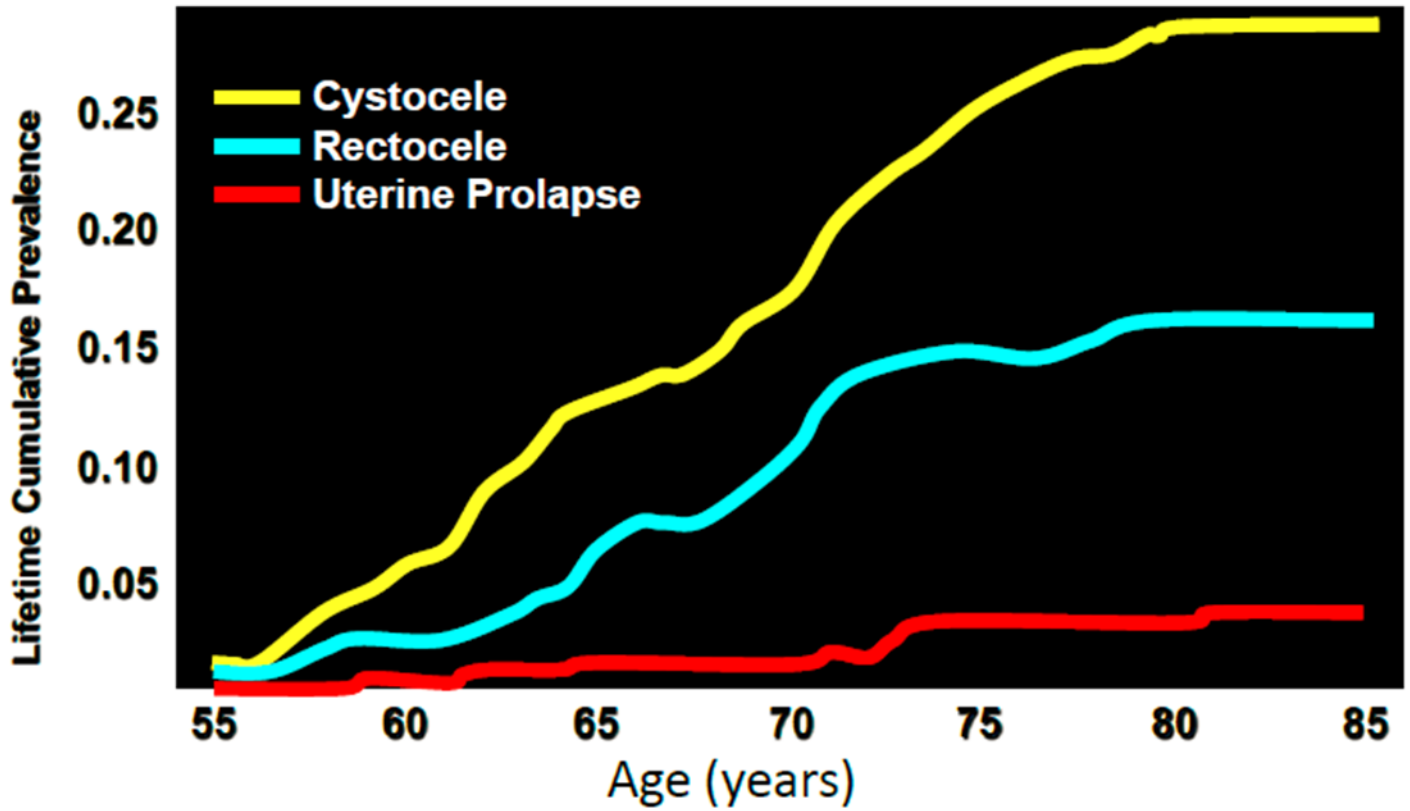
Stage 4 Prolapse



Incidence

- U.S. 13 % lifetime risk of undergoing surgery for POP
- Peak age – 70 to 80
- By 2050, POP will have increased by 50%

Prevelance site POP



Handa 2004

Work up

- Only physical is needed
- Prolapse is beyond the hymen or patient has voiding problem – should have post-void residual done
- Patient with urgency and frequency- UA and Urine culture
- Urodynamics if surgical planning

Treatment Options

Non-surgical treatments

- Kegel exercises help strengthen pelvic floor muscles and may help relieve some symptoms of minor prolapse. These exercises involve identifying the pelvic floor muscles that purposely interrupt the flow of urine in midstream, and then tightening these
- Vaginal pessary device placed into the vagina to support surrounding structures

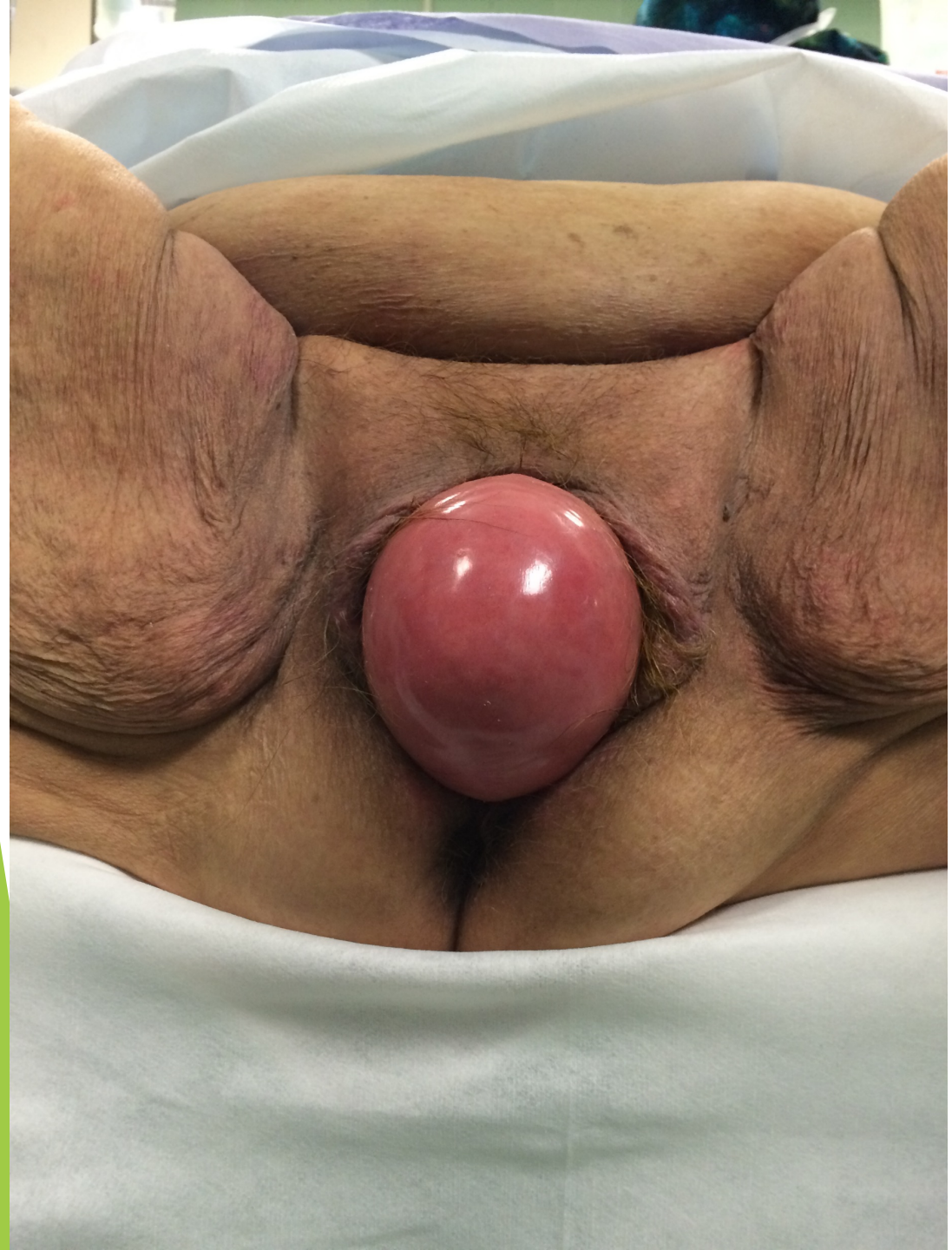
Surgical treatments

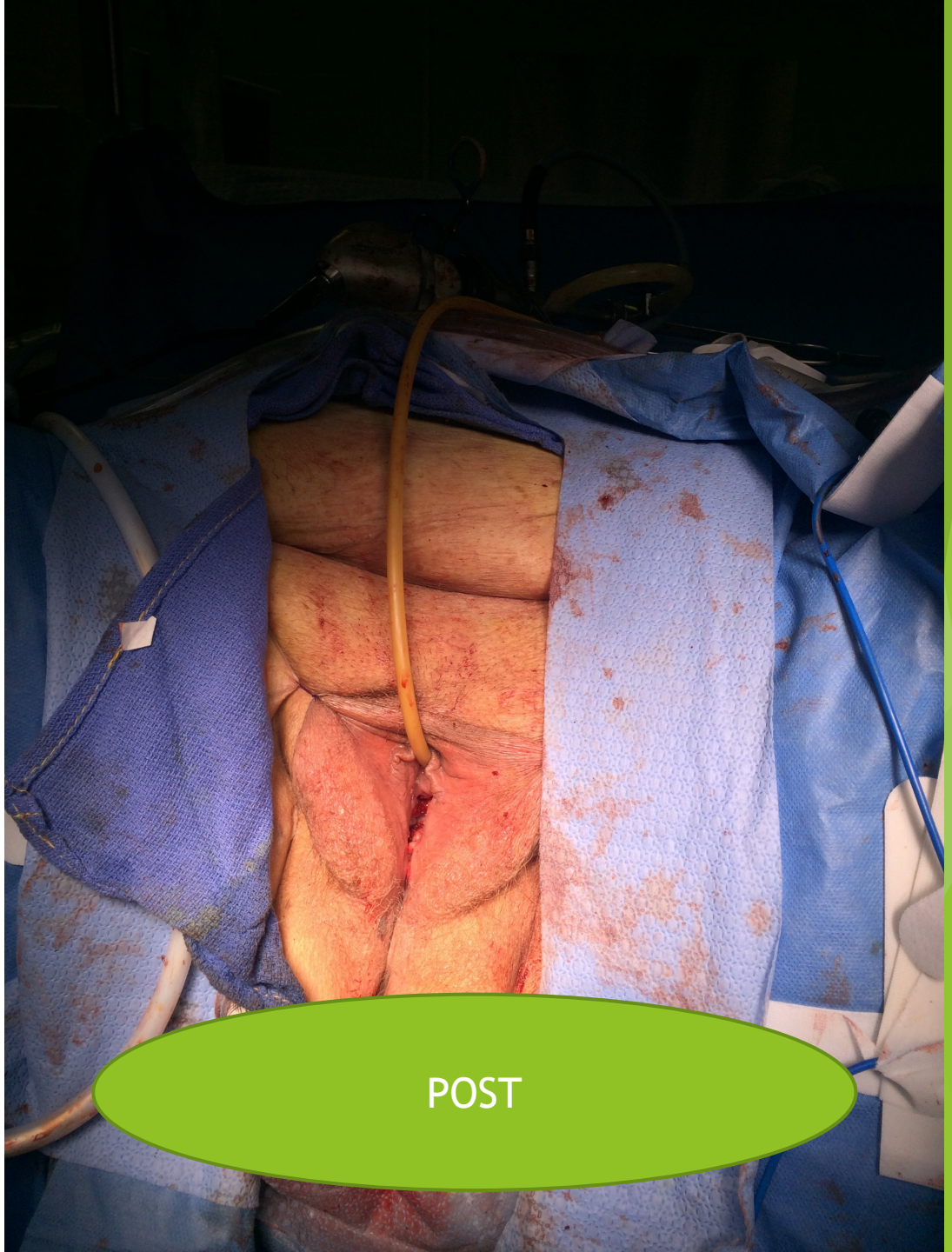
- Vaginal vs abdominal approach

5 Different Ways to Address Apical Repair (colpopexy)

- Sacralcolpopexy
- Uterosacral ligament suspension
- Sacrospinous fixation
- McCall culdoplasty
- Colpocleisis

- Cystocele /Rectocele
  - Vaginal (unless concomitant apical)





POST

Bladder Health Pearls

- Stop Smoking
- Obesity contributes to urinary leakage
- Avoid Constipation
- Alcohol & caffeinated beverages can aggravate your “gotta go” problem
- If you are a Diabetic, watch your diet & control your fingerstick glucose levels

Knowledge of UI and POP

- MUI>OAB>SUI - highly prevalent
- Most patients treated for OAB visit their PCP first
- Patients often “suffer in silence” and adapt their behavior/lifestyle around the condition
- Adaptations have the potential to to the patient’s health and quality of life

Questions