



# Urine incontinence in Geriatrics

# URINARY INCONTINENCE

- major problem for older adults, affecting up to 30% of community-dwelling elders and 50% of nursing home residents
- affects women twice as commonly as men at ages <80 yo
- >80 yo, sexes are equally affected



# Risk factors

- Advanced age
- functional impairment
- Dementia
- Obesity
- Smoking
- affective disorder
- Constipation
- certain medical illnesses (such as chronic obstructive pulmonary disease and heart failure),
- history of pelvic surgery

# DRIIPP

## Reversible Conditions Associated with Urinary Incontinence

### **Delirium**

**Restricted mobility—illness, injury, gait disorder, restraint**

**Infection—acute, symptomatic urinary tract infection**

**Inflammation—atrophic vaginitis**

**Impaction—of feces**

**Polyuria—diabetes, caffeine intake, volume overload**

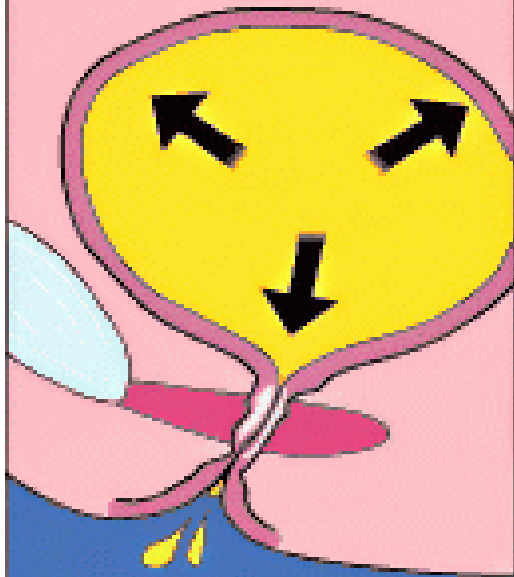
**Pharmaceuticals—diuretics, -adrenergic agonists or antagonists, anticholinergic agents (psychotropics, antidepressants, anti-Parkinsonians)**

**Source: After DB Reuben et al.**

# Types of Incontinence

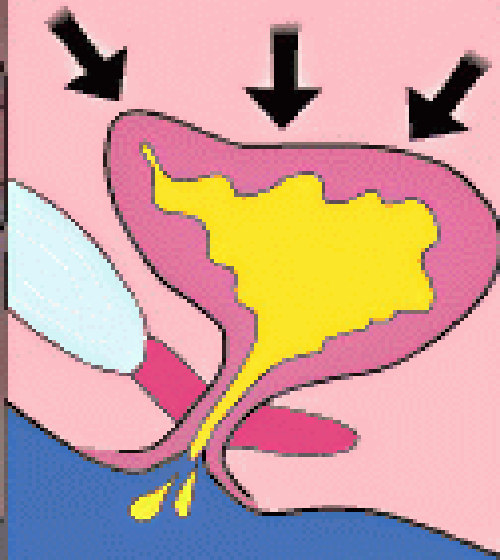
## Overflow

- Urethral blockage
- Bladder unable to empty properly



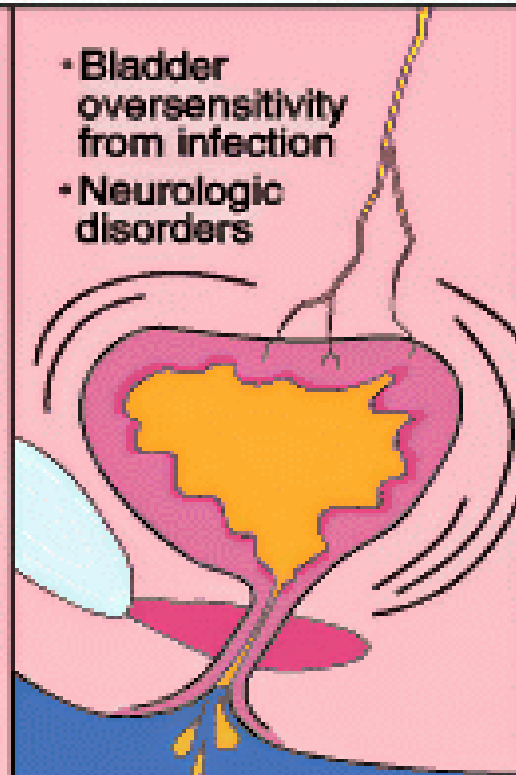
## Stress

- Relaxed pelvic floor
- Increased abdominal pressure



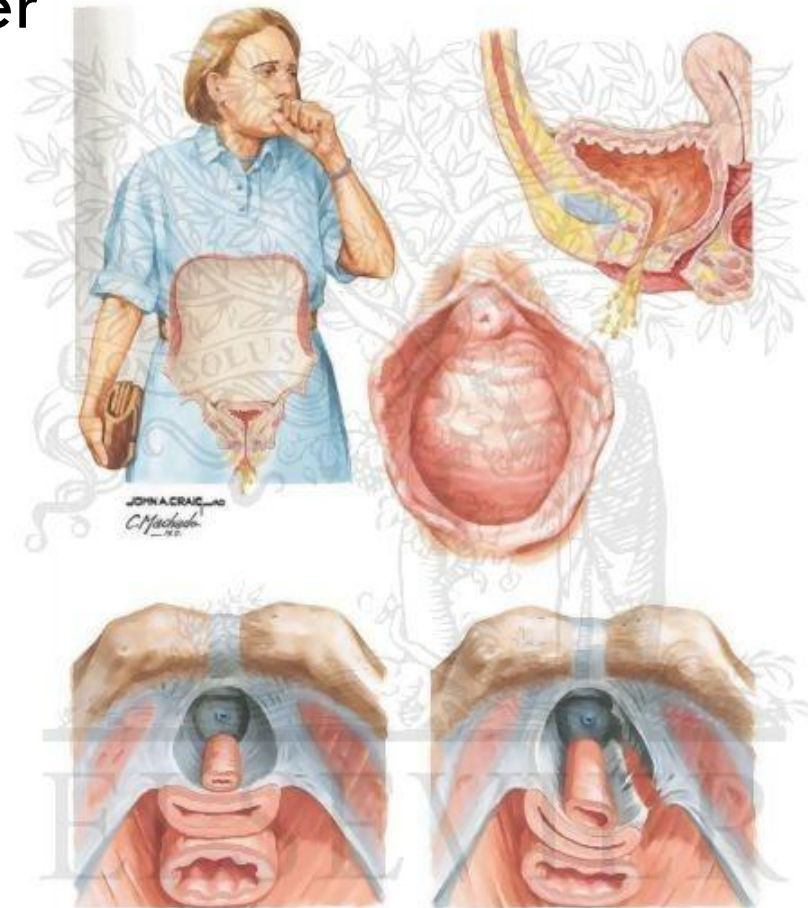
## Urge

- Bladder oversensitivity from infection
- Neurologic disorders



# Stress Incontinence

- results when the urethral sphincter mechanisms are inadequate to hold urine during bladder filling
- leaking small amounts of urine during activities that increase intraabdominal pressure: coughing, laughing, sneezing, lifting, or standing up



# Stress Incontinence

- most common causes of stress incontinence in women are insufficient pelvic support due to childbearing, gynecologic surgery, and the decreased effects of estrogen on tissues of the lower urinary tract

# Diagnosis and treatment

- History
- Stress test
  
- Surgical intervention
- Pelvic muscle exercise





# Urge Incontinence

- detrusor overactivity (DO)
- characterized by uninhibited bladder contractions and is the most common form of UI in older adults
- Described by patients as: uncontrollable need to void

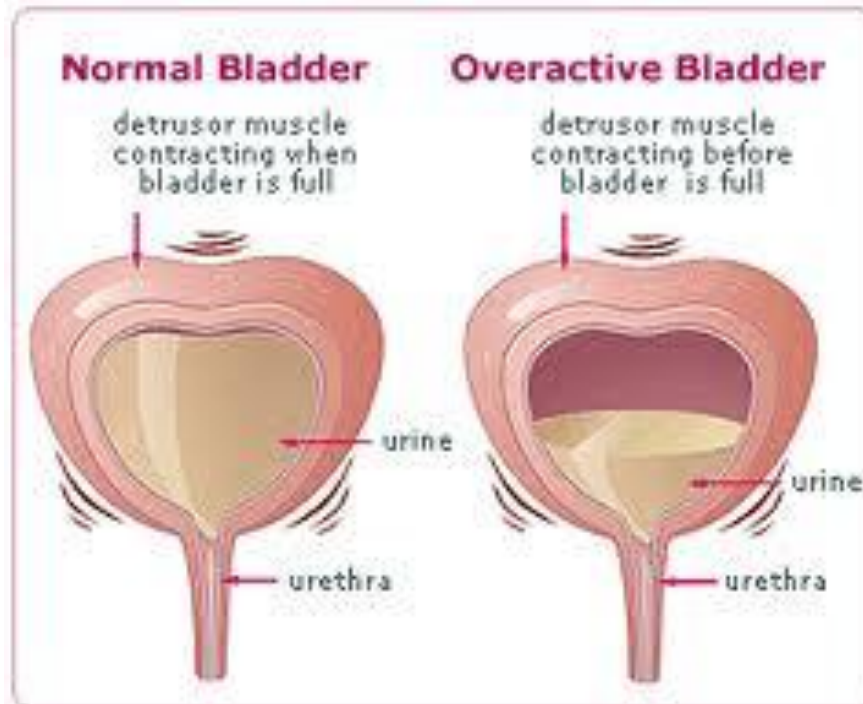


# Urge incontinence

- Urinary frequency and nocturnal incontinence
- particularly accompanied by loss of larger urine volumes ( $>100$  mL)

# Etiology – urge incontinence

- may be idiopathic, associated with lesions of the central nervous system, such as a stroke, or be due to bladder irritation from infection, stones, or tumors



# Diagnosis – urge incontinence

- Measurement of postvoid residual (PVR) should be part of an incontinence evaluation in all patients
- the patient's bladder is catheterized 5–10 min after the patient has voided
- PVR > 200 mL suggests detrusor underactivity or obstruction

# Treatment – urge incontinence

- bladder retraining by encouraging the patient to void every 2 hours
- try urgency control by sitting or standing quietly while focusing on allowing the urgency to pass before slowly walking to the bathroom
- anticholinergic drugs, oxybutinin and tolterodine, which cause bladder relaxation

# Mixed Incontinence



- refers to UI where symptoms of both stress and urge incontinence are present

# Overflow Incontinence

- due to either bladder outlet obstruction or an atonic bladder
- Male patients, but rarely females, may complain of dribbling after voiding
- an continuing urge to urinate, or straining to urinate
- palpable distended bladder

# Etiology – overflow incontinence

- Prostatic hypertrophy, prostate cancer, and urethral strictures
- cystocele can cause this problem in women
- spinal cord disease, autonomic neuropathy of diabetes, alcoholism, vitamin B<sub>12</sub> deficiency, Parkinson's disease, tabes dorsalis, or chronic outlet obstruction



# Diagnosis and treatment – overflow incontinence

- Urodynamic testing
  - distinguishing urethral obstruction from detrusor underactivity
- For obstruction: surgical removal of the obstruction
- BPH: terazosin, doxazosin, or tamsulosin