URINARY RETENTION

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SPHERE Bladder and Bowel Service

LEARNING OUTCOMES

- Bladder Anatomy
- Assessment
- Retention Causes
- Retention Complications
- Retention Treatment /Management

When the person is unable to empty their bladder—either partially or completely.

- Acute (sudden)
- Chronic (overtime)

>60

More Common as age

10%

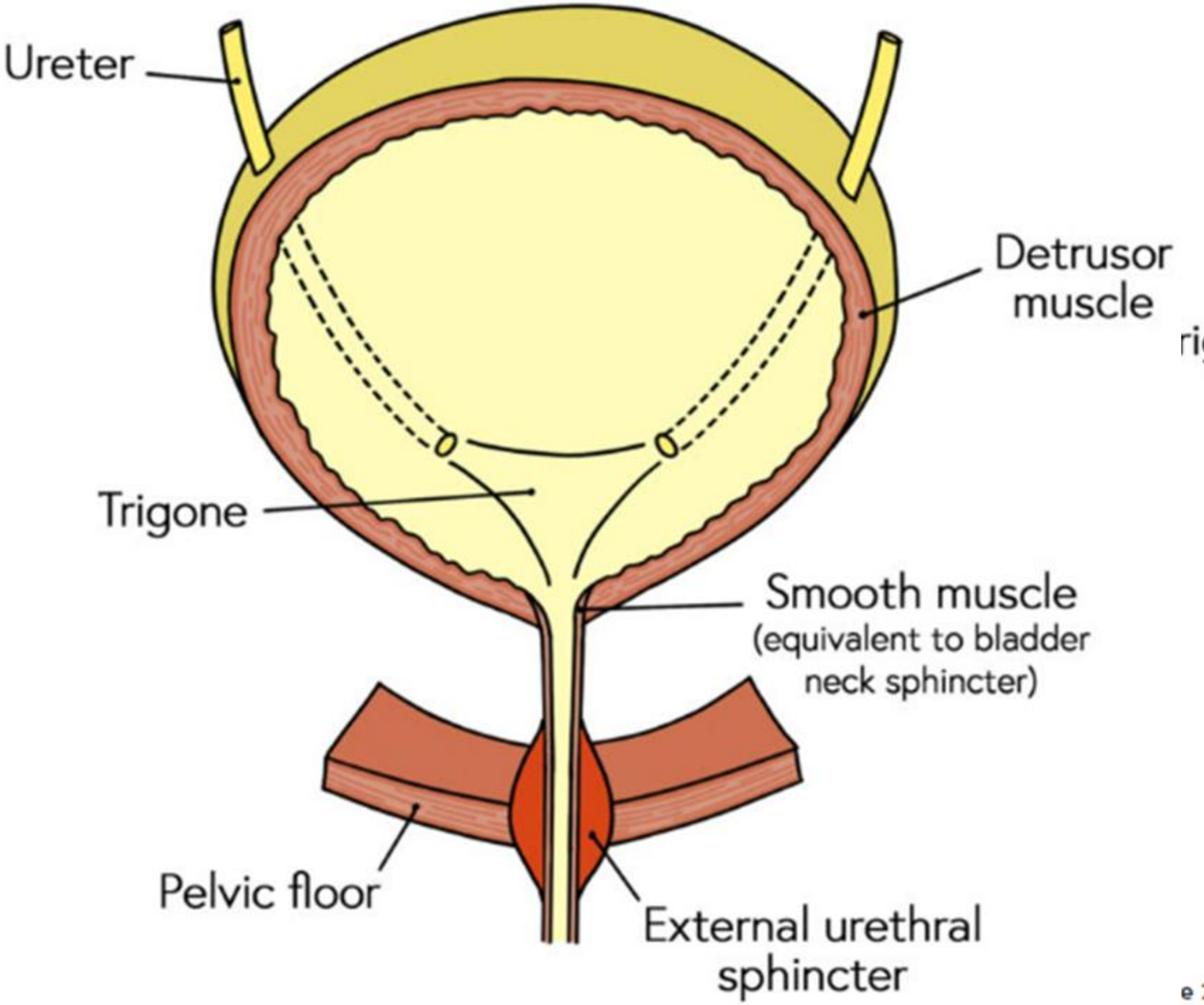
in their 70's

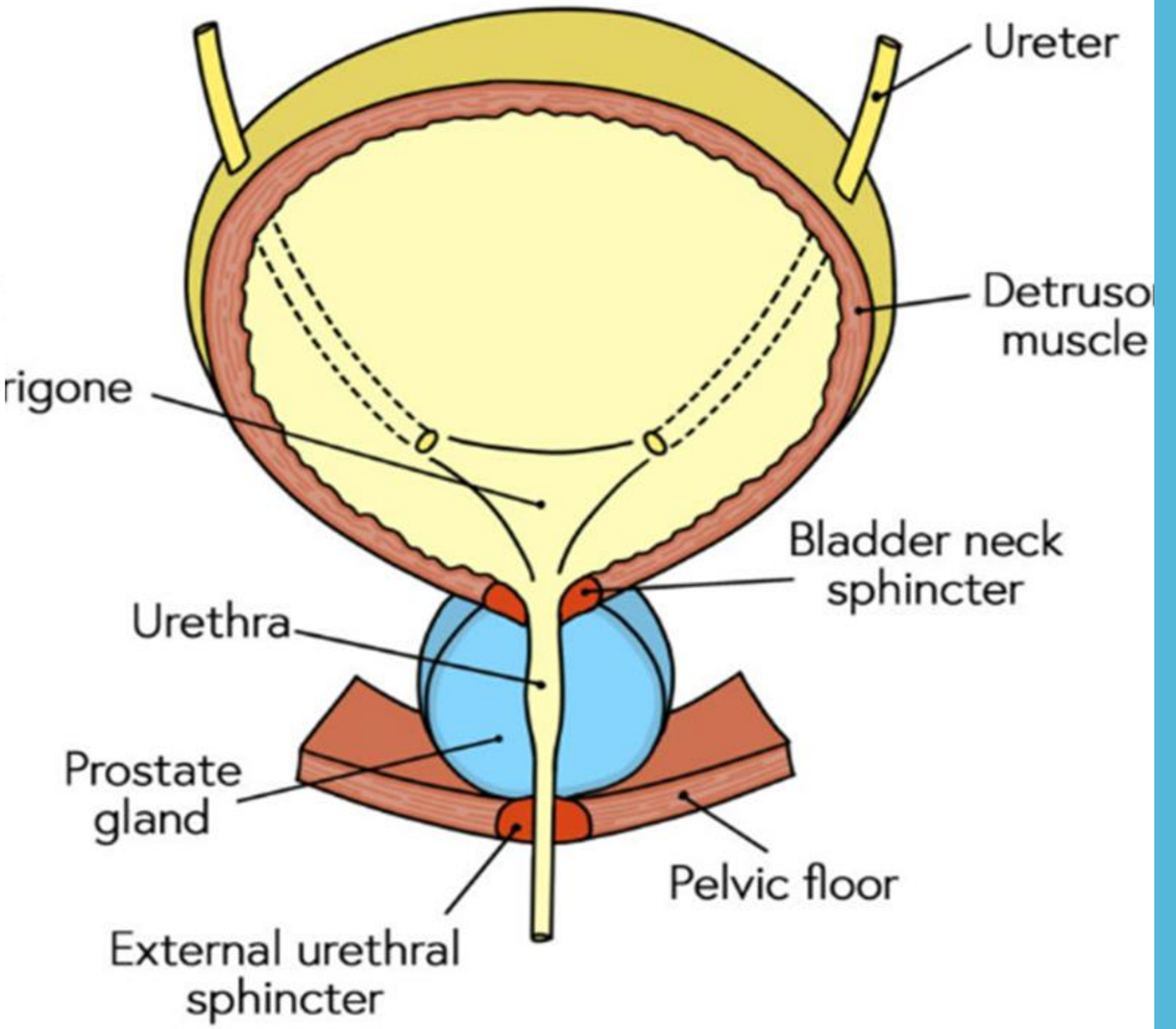
30,000

A&E

COMPLICATIONS

- UTI’s
- Bladder damage
- Kidney damage
- Urinary incontinence





e 2.3: Male bladder showing the position where the ureters enter the bladder, the trigone and
ler sphincters.

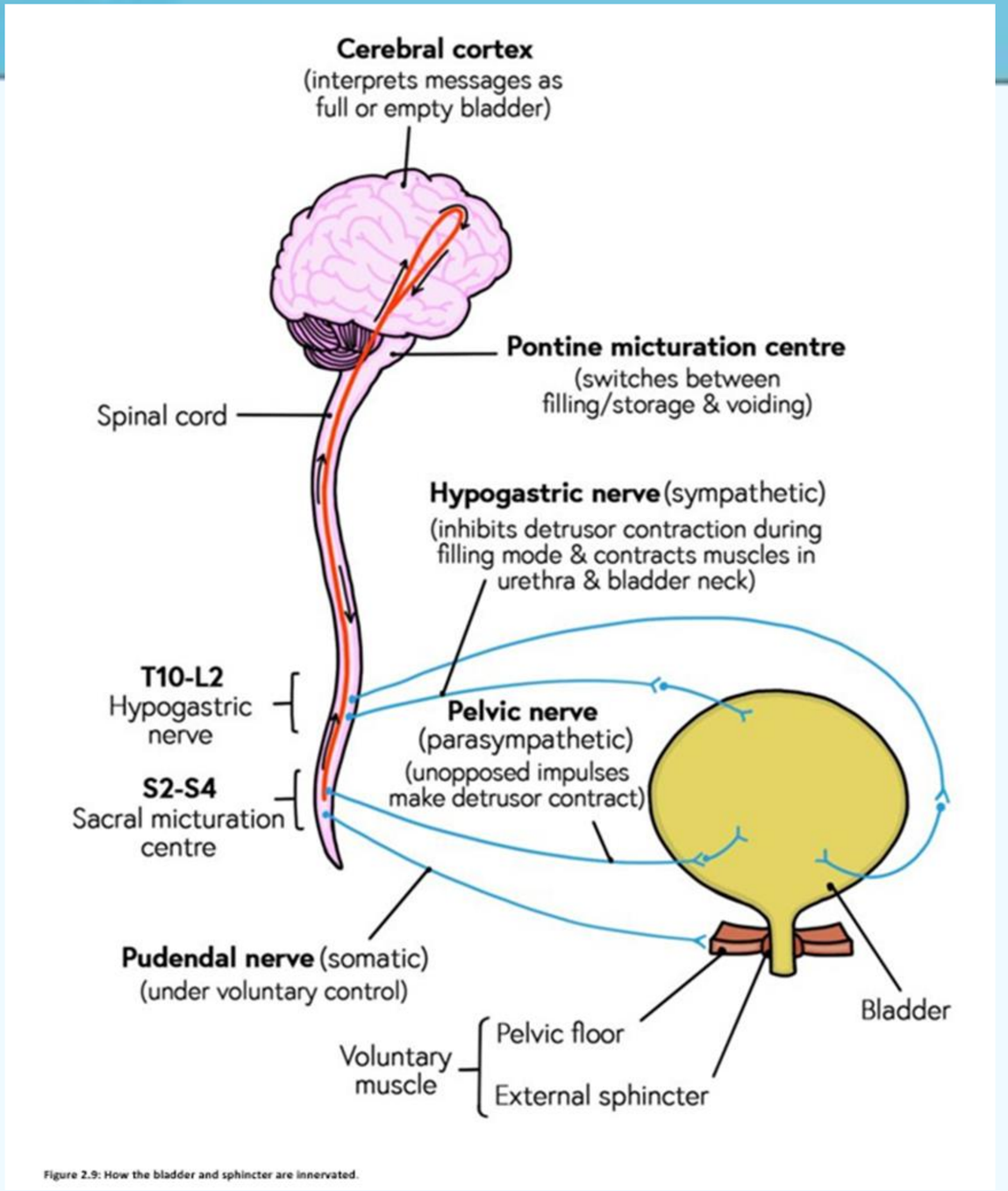
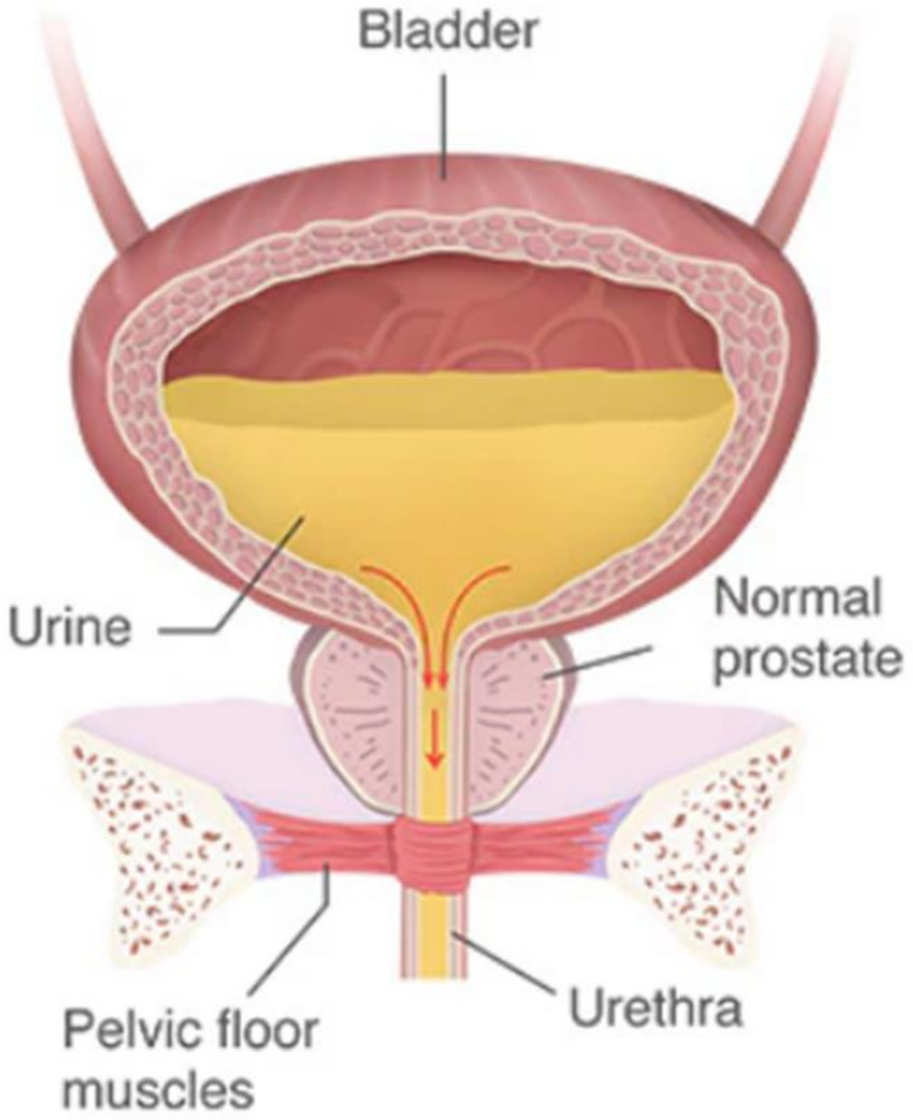
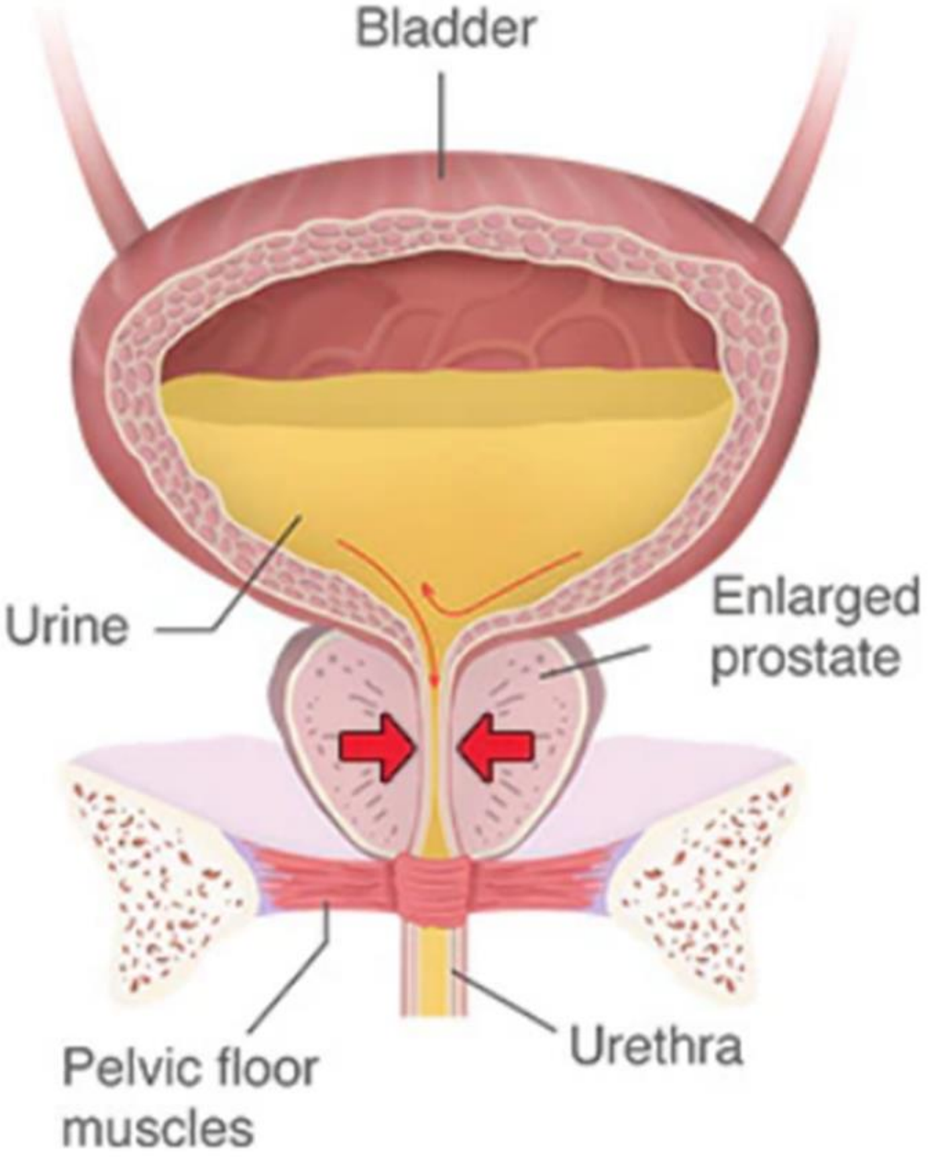


Figure 2.9: How the bladder and sphincter are innervated.

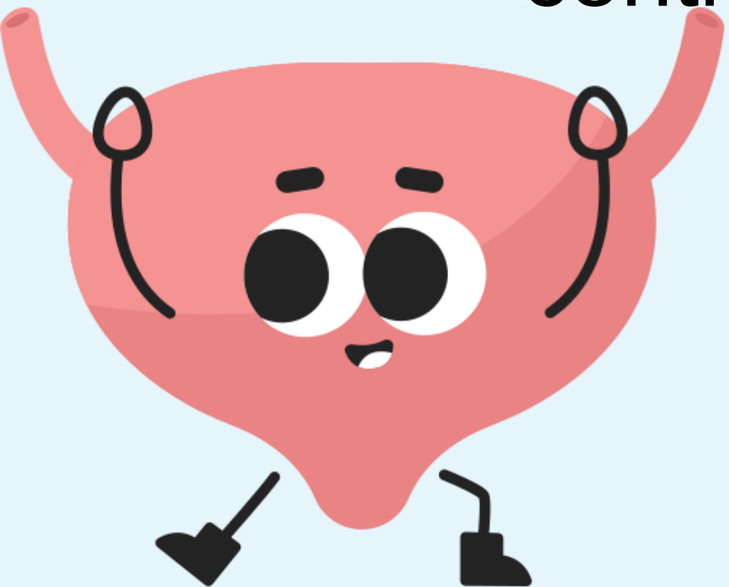
Normal Flow

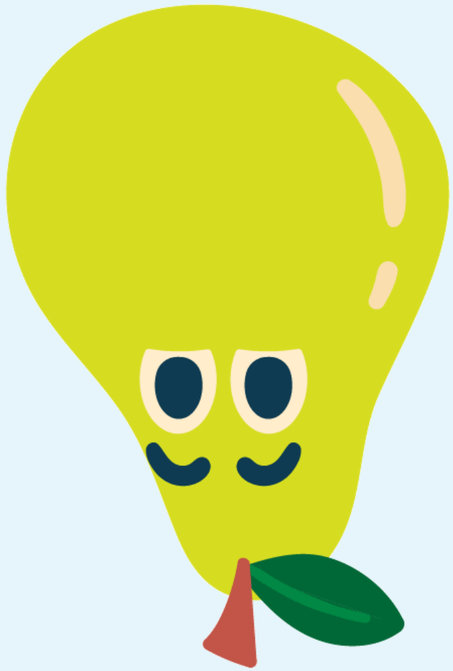


Restricted Flow



- It becomes spherical and then pear-shaped as it rises up out of the pelvic cavity.
- As the bladder fills it is relaxed. The internal and external sphincters are contracted maintaining continence.



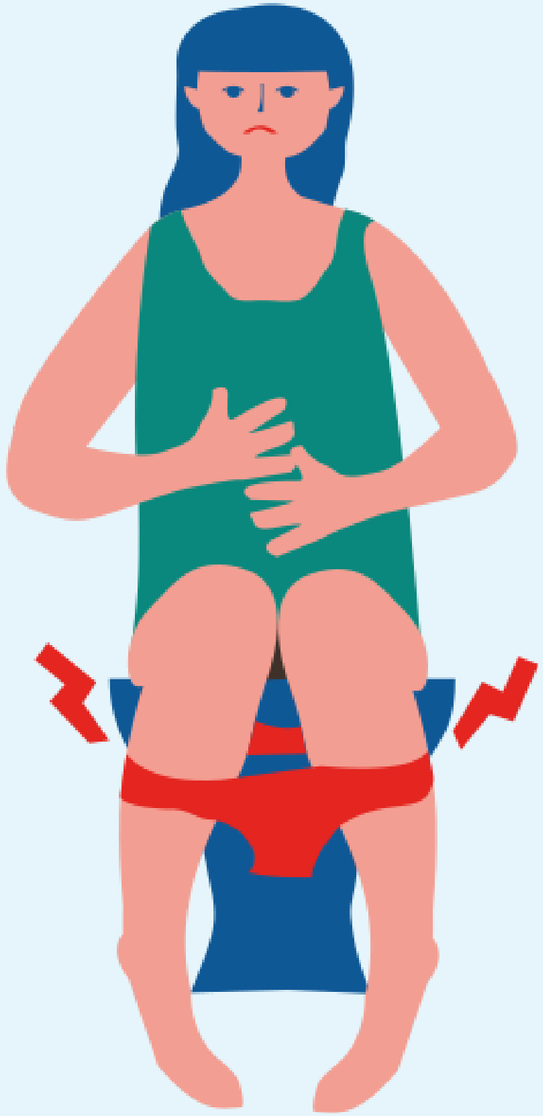


Around 200ml, is when you start to be aware. Usually be suppressed by conscious inhibitory control. As the need becomes stronger it gets more difficult to suppress.

When need feels strong they will show behaviours to help them hold on i.e. restless, hopping from one foot to another, fidgeting, wandering

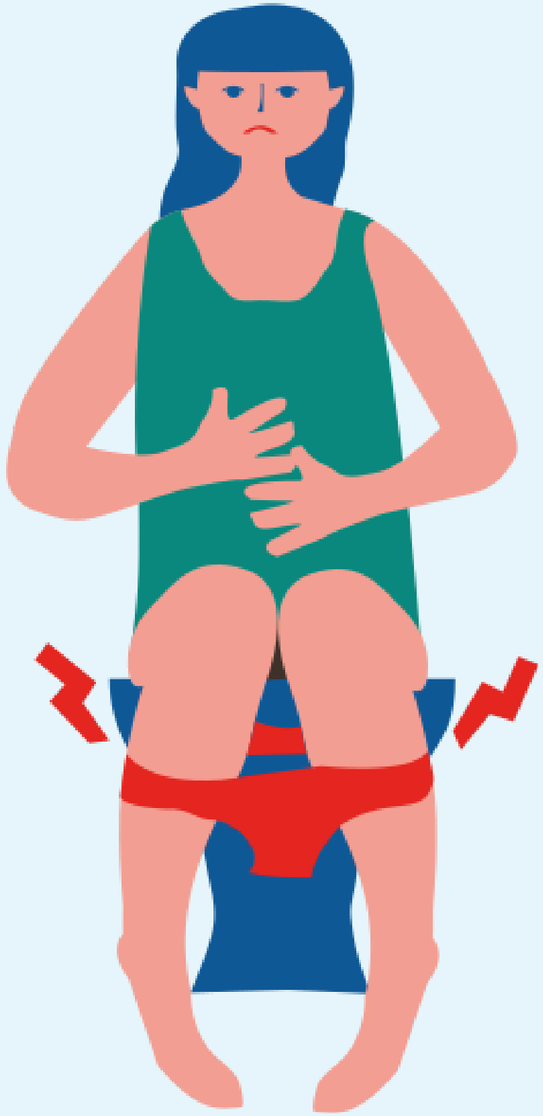
Voiding Urine

- Normally started voluntarily and can be delayed until a suitable time and place.
- The external sphincter and bladder neck relax and simultaneously the detrusor muscle contracts.



Voiding Urine

- When the external sphincter relaxes the pressure in the urethra is lowered and the pelvic floor relaxes.
- The parasympathetic nerves stimulate the detrusor contraction, increasing the pressure and the urine is expelled under pressure



End of Voiding

As it empty’s the flow reduces and ends:

- External sphincter closes under voluntary control.
- Urethra contracts forcing urine above the level of the external sphincter back up into the bladder.
- Cortical micturition control centre takes control; this inhibition allows the filling cycle to start again

Acute Urinary Retention

- The brain still gets the “full” signal, but are physically unable to void.
- Can be painful
- Immediate medical attention should be sought as the pressure from a full bladder over time can cause irreparable kidney damage and can be life-threatening in some cases.

Chronic Urinary Retention

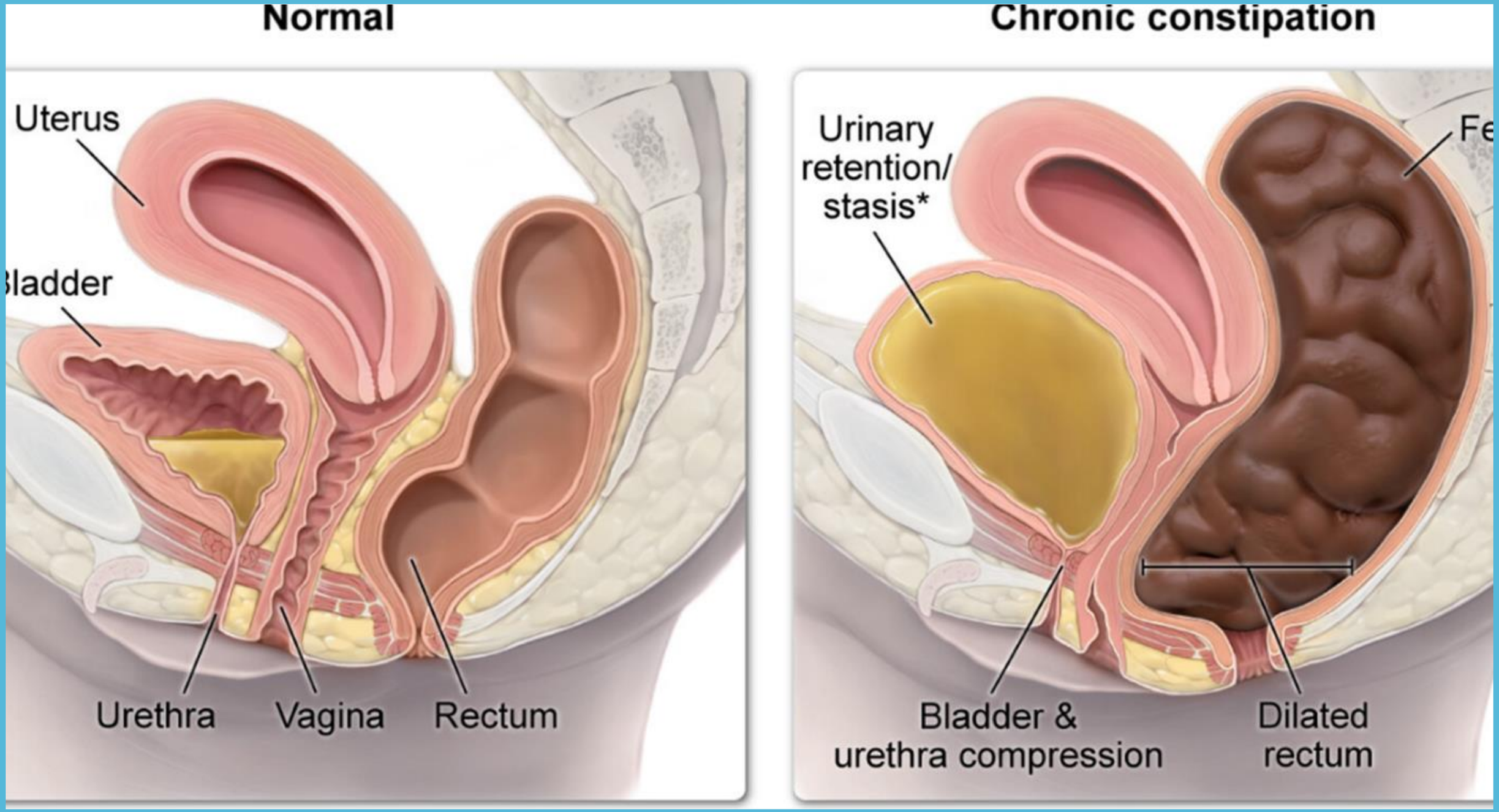
- Can void but cannot empty completely, or have difficulty initiating a stream of urine.
- Develops slowly over time.
- Maybe unaware until UTI’s, urinary incontinence from overflow, or permanent kidney damage over time from long term obstruction.

Causes Urinary Retention

- Urinary tract infection
- Outflow obstruction-enlarged prostate, tumour, stricture, stones, haematuria
- Constipation
- Medication antidepressants, nasal decongestants
- Neurological –stroke, lack of sensation

Causes Urinary Retention

- Spinal or brain injury
- Vaginal childbirth
- Pelvic prolapse, mass or injury
- Impaired muscle or nerve function
- Post surgery
- Weak bladder muscle
- Psychological causes
- Pain


Normal
Uterus
Bladder
Urethra
Vagina
Rectum
Chronic constipation
Urinary retention/ stasis*
Fe
Bladder & urethra compression
Dilated rectum

Symptoms

- Difficulty starting to void
- Hesitancy/ straining
- Strong feelings of urgency and frequency and when voiding but only a small amount comes out
- A weak/ intermittent stream

Symptoms

- Feeling of incomplete emptying
- Dribbling
- Incontinence
- Small amounts of urine passed during the day
- Increased abdominal pressure
- Lack of urge to urinate
- Nocturia

A bladder scanner is the preferred option to measure residual urine volumes (RCN 2019)
Has Limitations

- Morbid obesity
- Severe abdominal scarring is present
- Abdominal staples or tension sutures are in situ
- Infected abdominal wound

Residuals (PVR)

<100ml is considered normal

100-200ml promote more effective bladder emptying, double voiding. Re scan in 1-2 weeks.

>200ml discuss results & bladder diary with GP.

>250ml more significant may be an outflow obstruction and/or underactive bladder. Discuss with GP.

•Urgent review is required for high post void residuals 500-1000+

Residuals (PVR)

- Can contain debris
- Voiding helps flush out and eliminate bacteria.
- The bladder mucosa itself has antibacterial properties and can destroy bacteria which remain on its surface.
- Increasing fluids and emptying the bladder effectively also prevent adherence of bacteria.

Medication

One or more may be prescribed to ease symptoms of urinary retention:

- 5-Alpha Reductase Inhibitors, such as Finasteride, can shrink the prostate 30%. Slower acting, up to 3 months

Medication

- 5-AlphA combination of the above may have a more significant impact than one drug alone.
- Antibiotics, if the urinary retention has been caused by a UTI or inflamed prostate (prostatitis).

Catheterise????

Nurses must always assess clinical need for catheter usage as part of their professional role, even if medical directives state ‘to catheterise’.

Men with Retention

- Catheterise men with acute retention ASAP.

- Men can be offered an alpha blocker for AUR at least 2 days before removal of the catheter.

- Catheterise men who have impaired renal function or Hydronephrosis secondary to CUR.

Intermittent Self Catheterisation (ISC)

- Before indwelling catheterisation for men with chronic urinary retention and before offering surgery.
- Instead of surgery in men with chronic retention who have obviously impaired bladder function.

- Bloods and scan upper urinary tract in men with chronic urinary retention (residual volume > 1 litre or a palpable or percussable bladder).

- Acute Urinary Retention (Causes, Symptoms, and Treatment) | Patient
- Acute urinary retention: patient investigations and treatments | British Journal of Nursing (oclc.org)
- Bladder & Bowel Community (bladderandbowel.org)
- Catheter Care Guidance for Health Care Professionals| Royal College of Nursing (rcn.org.uk)
- Definition & Facts of Urinary Retention - NIDDK (nih.gov)
- Faecal impaction with overflow (futurelearn.com)
- https://doi-org.knowledge.idm.oclc.org/10.12968/bjon.2021.30.9.S4
- https://www.nice.org.uk/guidance/qs90
- Male urethral sphincters (futurelearn.com)
- Recommendations | Lower urinary tract symptoms in men: management | Guidance | NICE
- Urinary Retention in Adults: Evaluation and Initial Management | AAFP
- Urinary retention | Continence Foundation of Australia
- Urinary Stasis — Cote Illustration
- Urinary retention | Treatment summaries | BNF | NICE