

Please study the original lecture
before going through this file

Renal Block

ANATOMY

team 435



C O L O R C O D E S

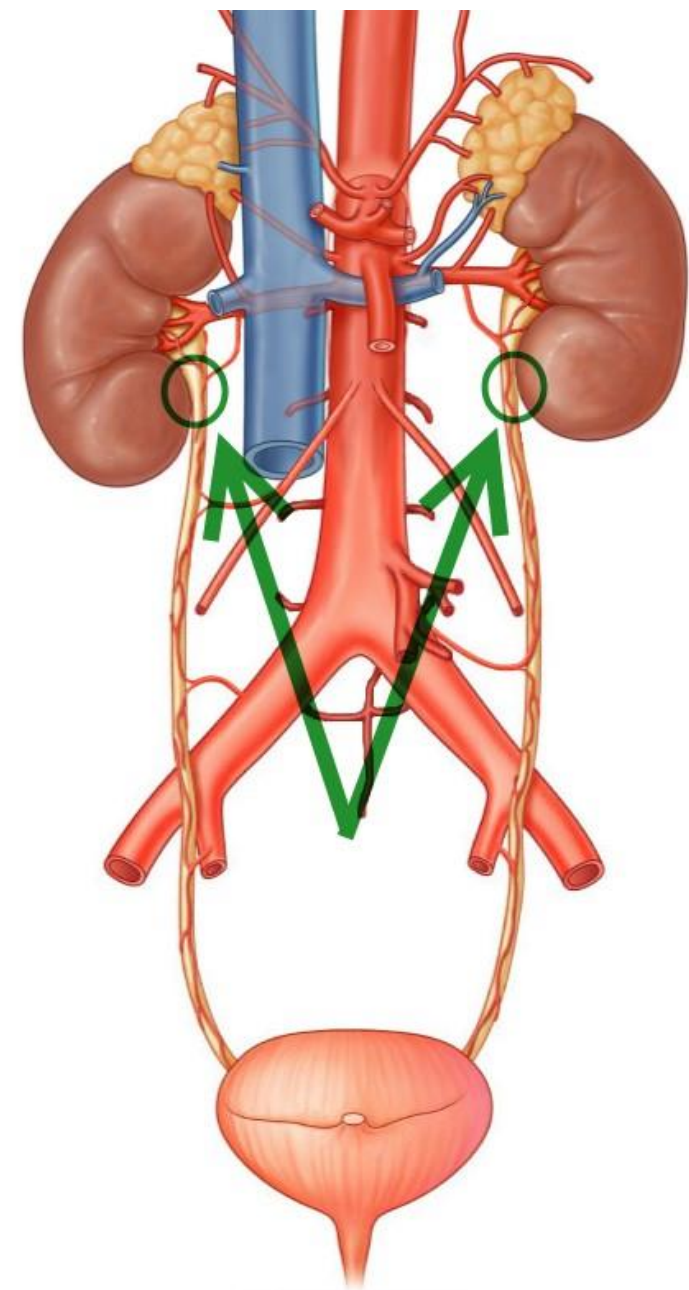
- IMPORTANT NOTES
- EXTRA NOTES
- DEFINITION

Illustration of the ureter course

different pics

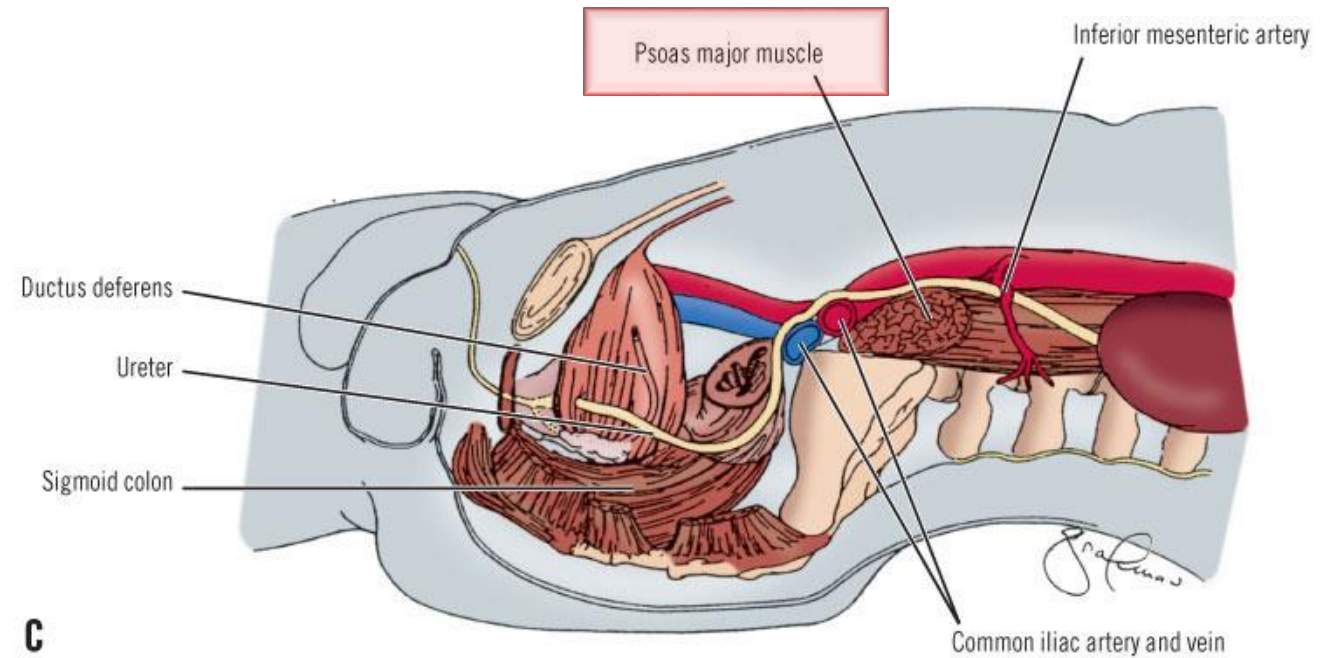
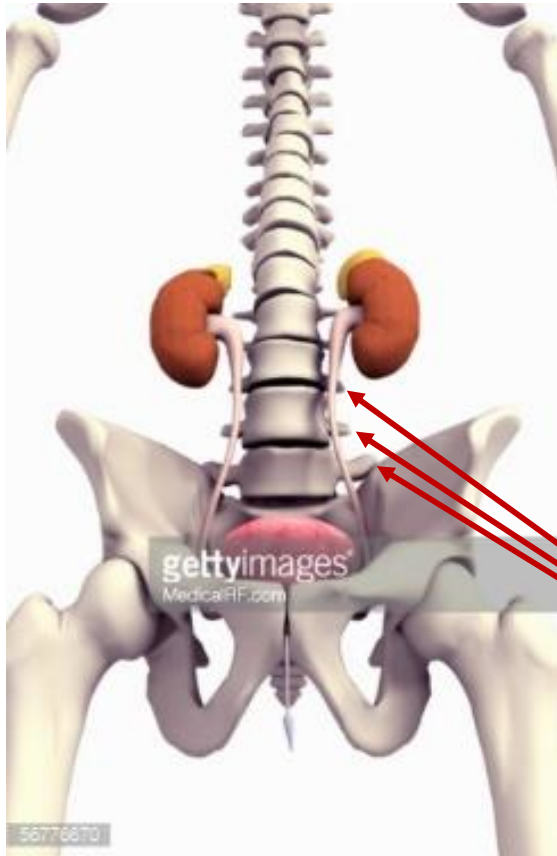
Beginning:

It begins as a continuation of renal pelvis. **At the ureteropelvic junction**



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Illustration of the ureter course



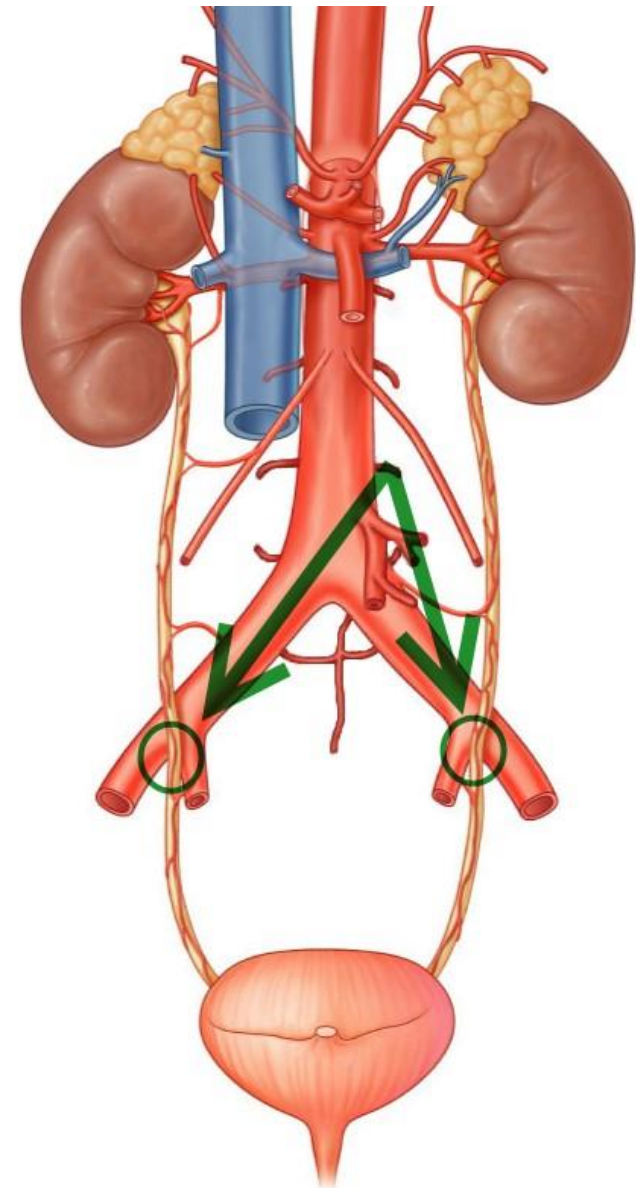
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Abdominal part:
Anterior to **psoas major**
(opposite the **tips of lumbar**
transverse processes)

Illustration of the ureter course

Abdominal part:
It crosses the end
(**bifurcation**) of common iliac
artery to enter the pelvis.

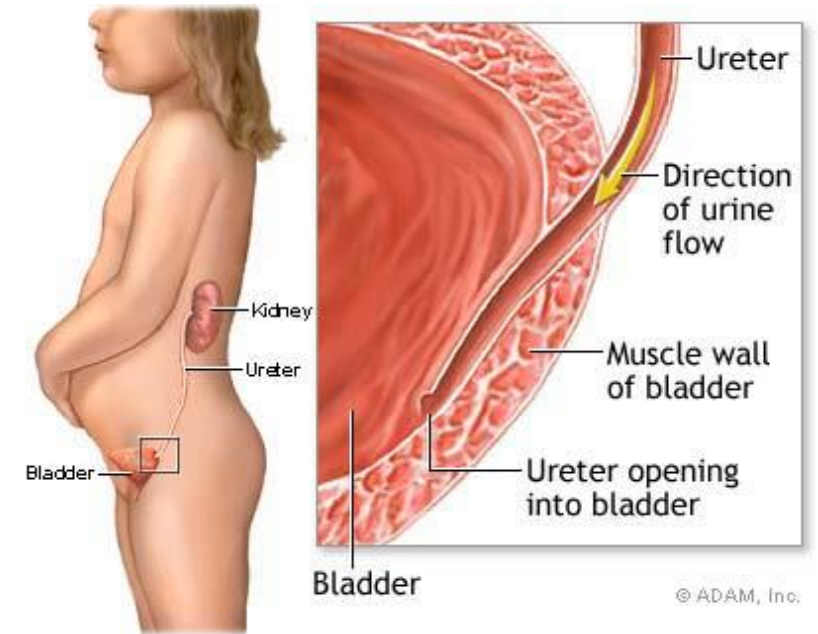
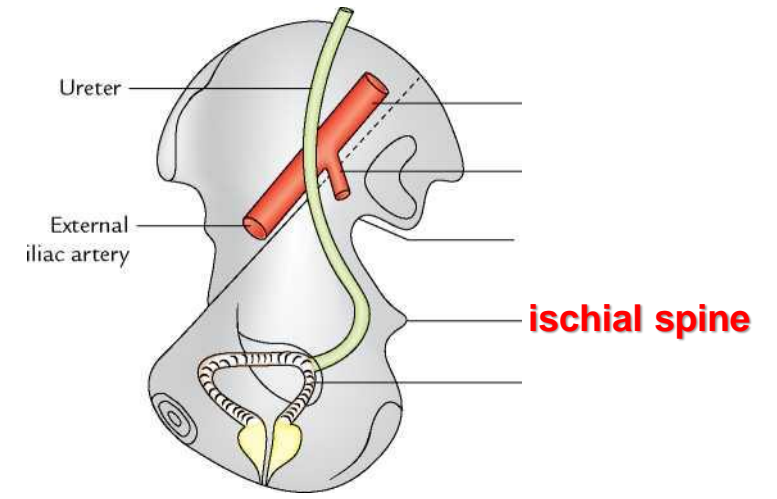


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Illustration of the ureter course

COURSE IN PELVIS & TERMINATION:

- It runs downward & backward to the level of ischial spine.
- It curves forward to open in upper lateral angles of the base of urinary bladder.
- It runs obliquely for $\frac{3}{4}$ inch **in wall of bladder** before opening (valve-like part).



Ureter

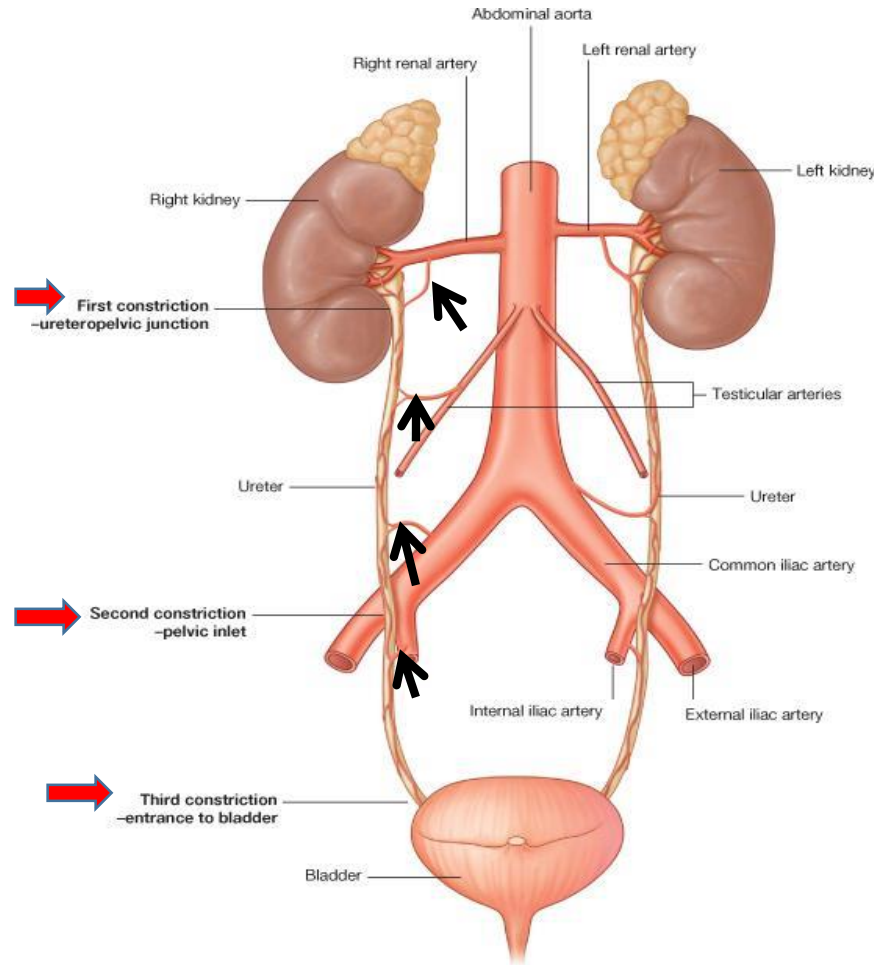
Sites of constriction

Urologists **P**assed **E**xams

Ureteropelvic junction

Pelvic inlet

Entrance of bladder



Arterial supply

▪ **Renal artery**

▪ **Gonadal artery**
(testicular artery in males or ovarian artery in females)

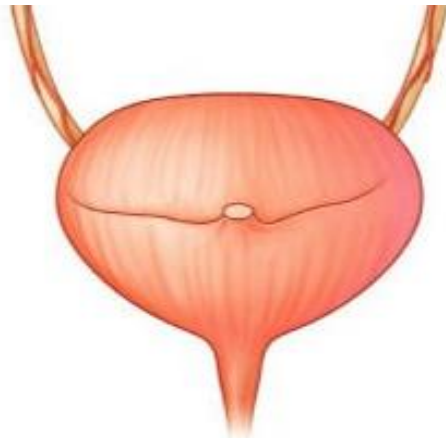
▪ **Common iliac artery**

▪ **Internal iliac artery**

Urinary Bladder

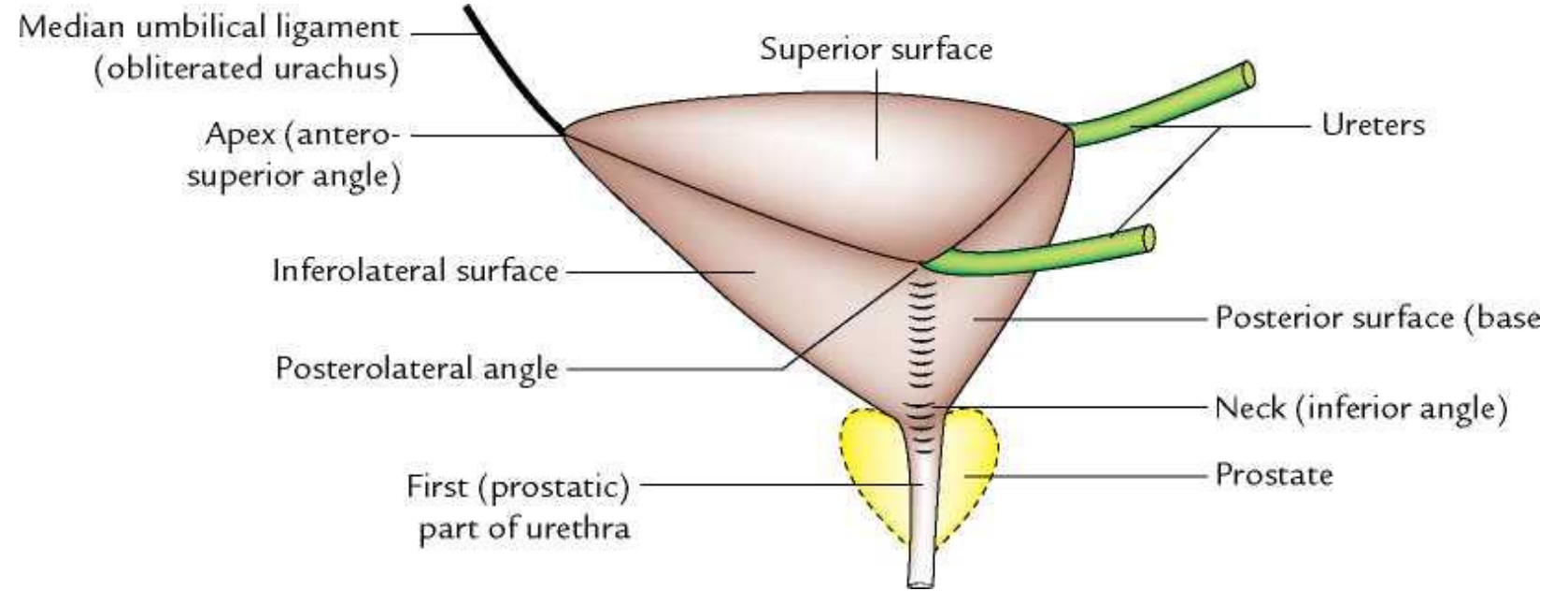
Shape (Pics only)

Anterior



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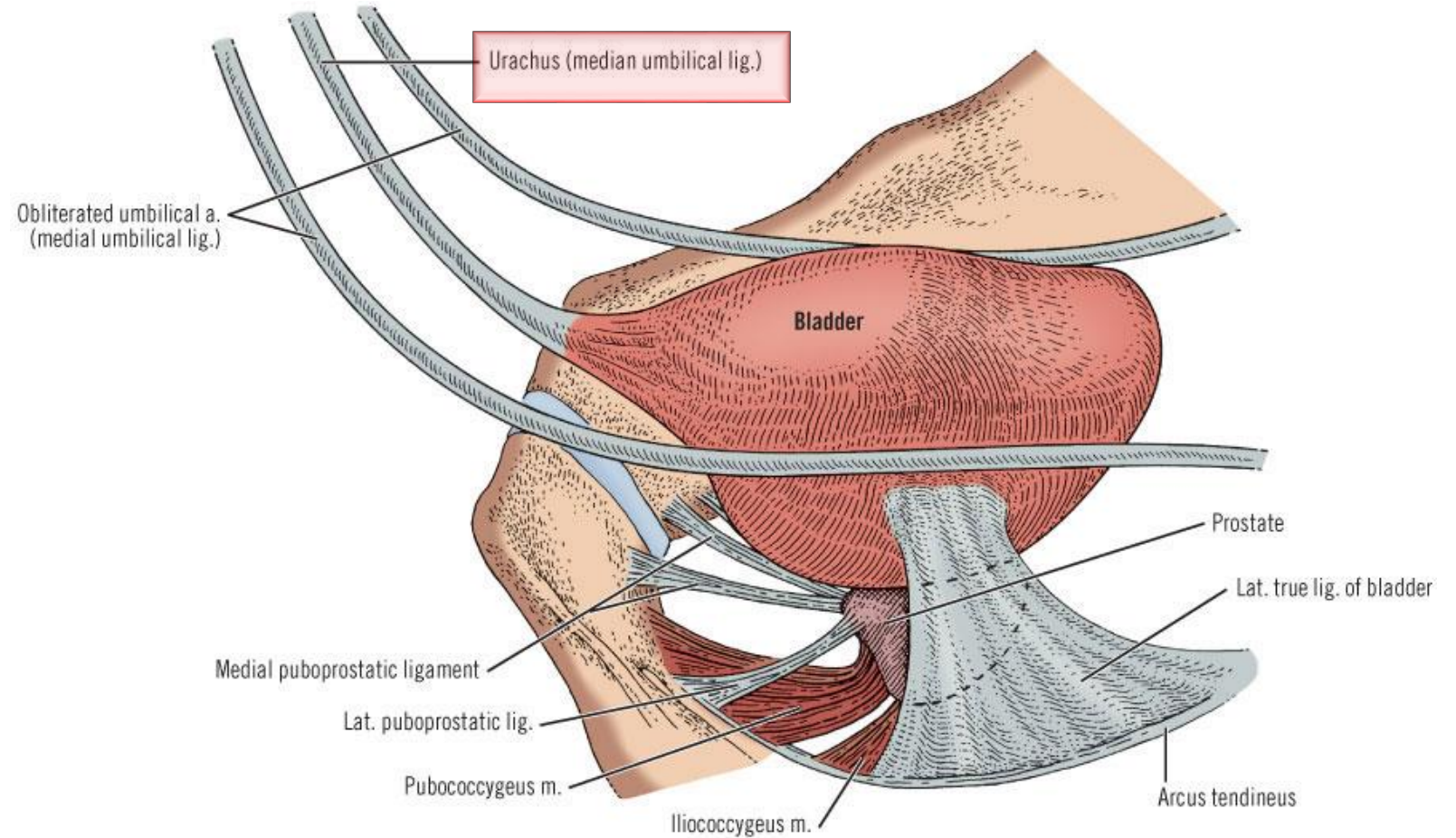
Lateral view



Urinary Bladder

Apex

- Is related to upper border of symphysis pubis
- Is connected to umbilicus by the median umbilical ligament (remnant of urachus)



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Urinary Bladder

Base

In MALE:

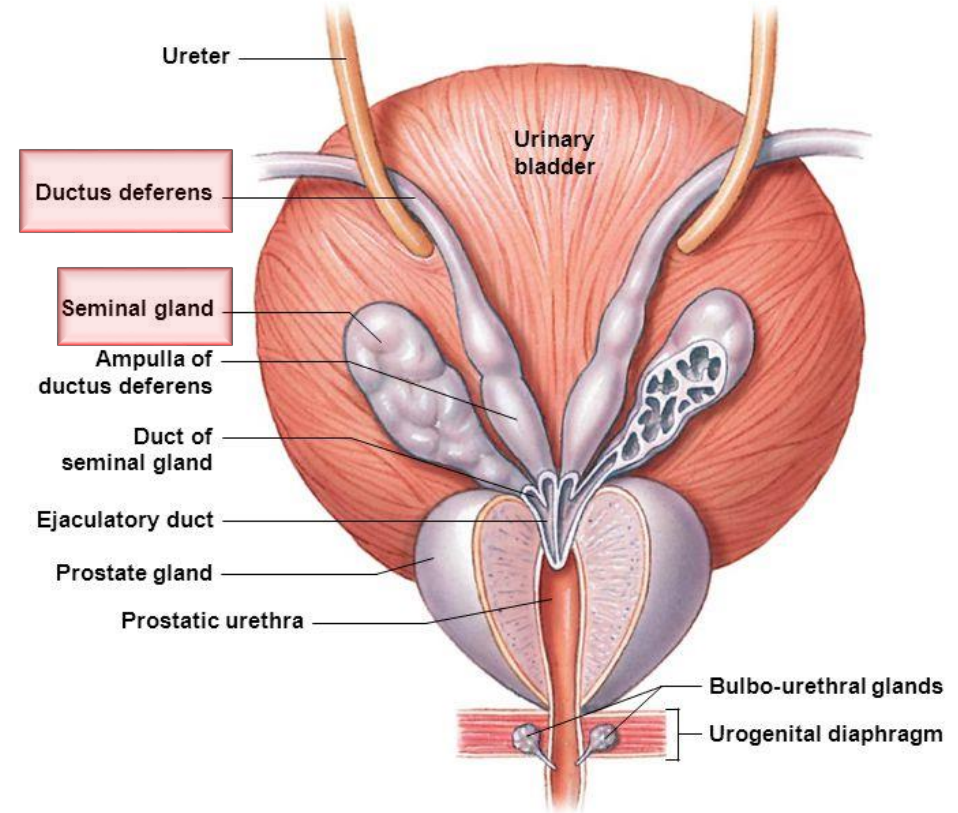
Is related to vas deferens (ductus deferens) & seminal vesicle (seminal glands) of both sides

In FEMALE:

Is related to vagina

Figure 27.8a The Ductus Deferens and Accessory Glands

a A posterior view of the urinary bladder and prostate gland showing subdivisions of the ductus deferens in relation to surrounding structures.



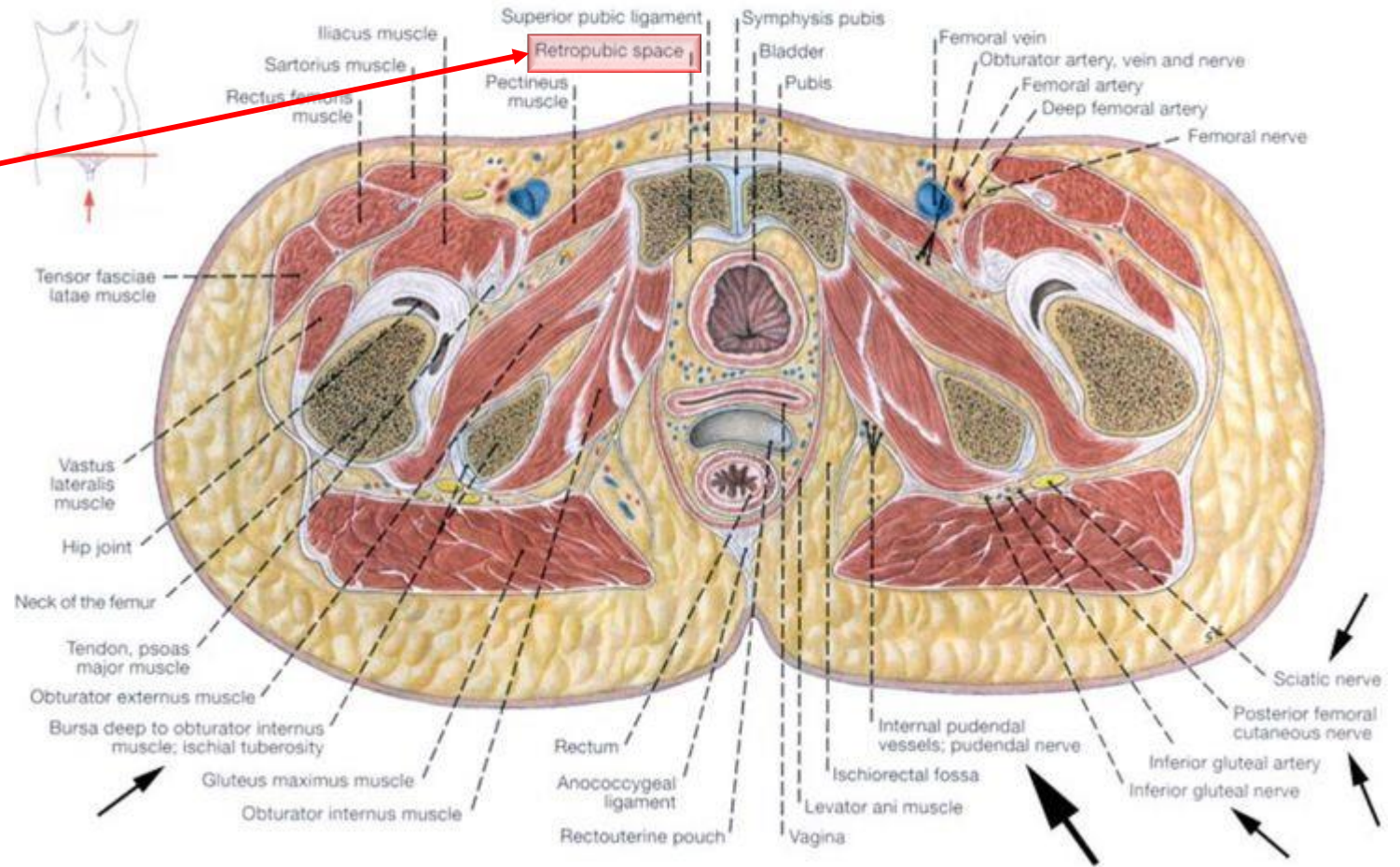
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Urinary Bladder

Infero-lateral surfaces

- Are related to **retropubic fat** separating them from pubic bones

Full Pelvis Cross Section, Horizontal, Female



Urinary Bladder : summary of external structure

structure	General info	Male relations	Female relations
Apex	median umbilical ligament + median umbilical ligament	Same	
Base	-----	Vas deferens + seminal vesicle	Vagina
Superior surface	-----	coils of ileum + sigmoid colon	Uterus
Inferolateral surfaces	related to retropubic fat	Same	
Neck	related to lower border of symphysis pubis	Upper surface of prostate (inferiorly, it rests on the base of prostate)	-----

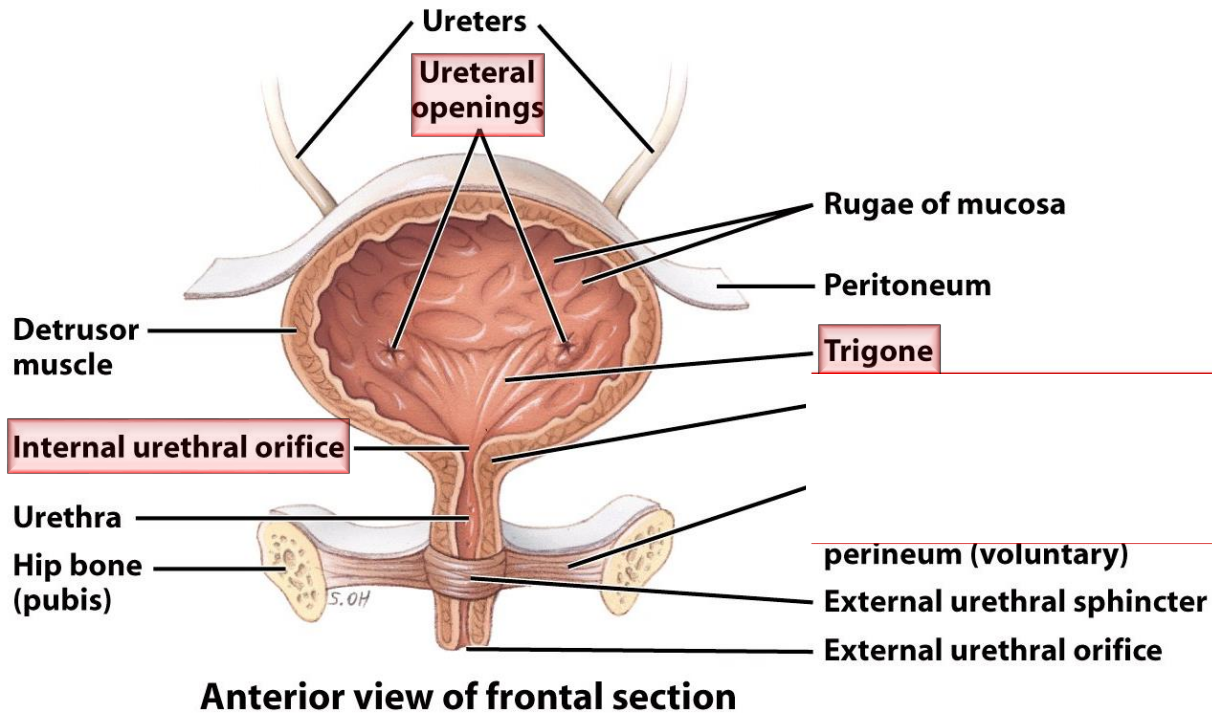
Sensory fibers of bladder: transmitting pain due to overdistention of bladder (**via general visceral afferent fibres from bladder to CNS**).

Girls' lecture

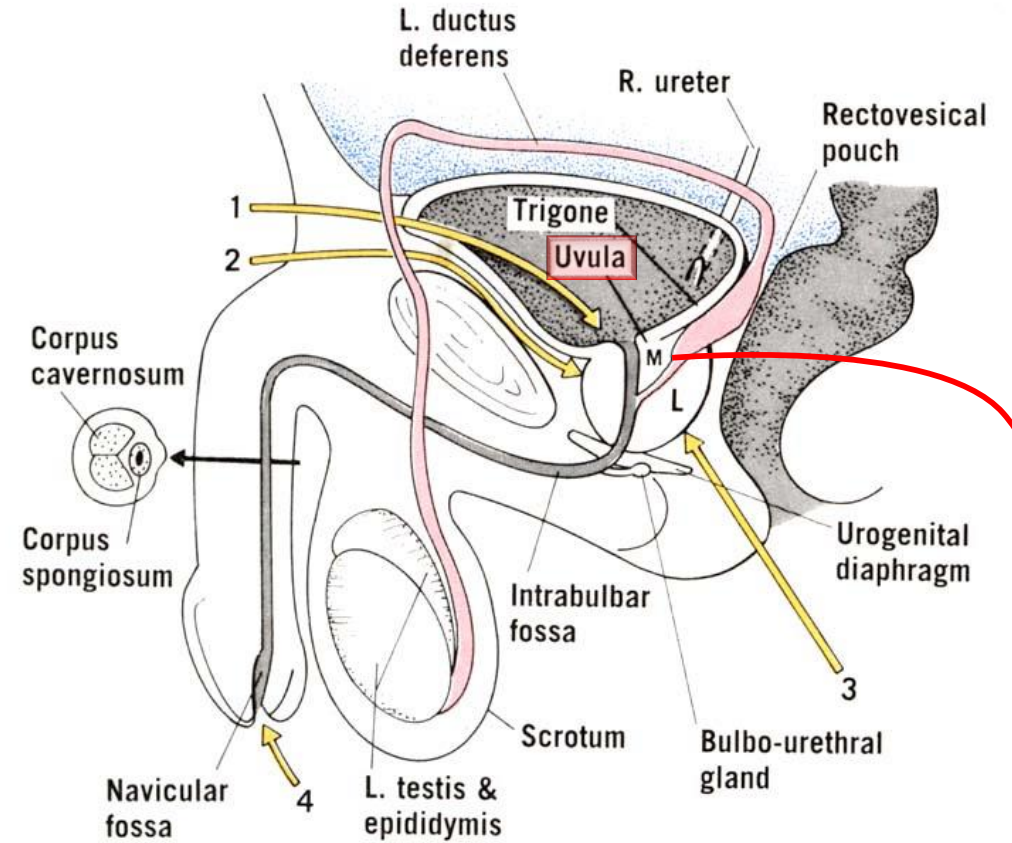


Urinary Bladder : Internal aspect

Generally it's a **folded mucous membrane** except for the **trigon** which is elastic (not folded)



Principles of Anatomy and Physiology, 11/e
Wiley & Sons

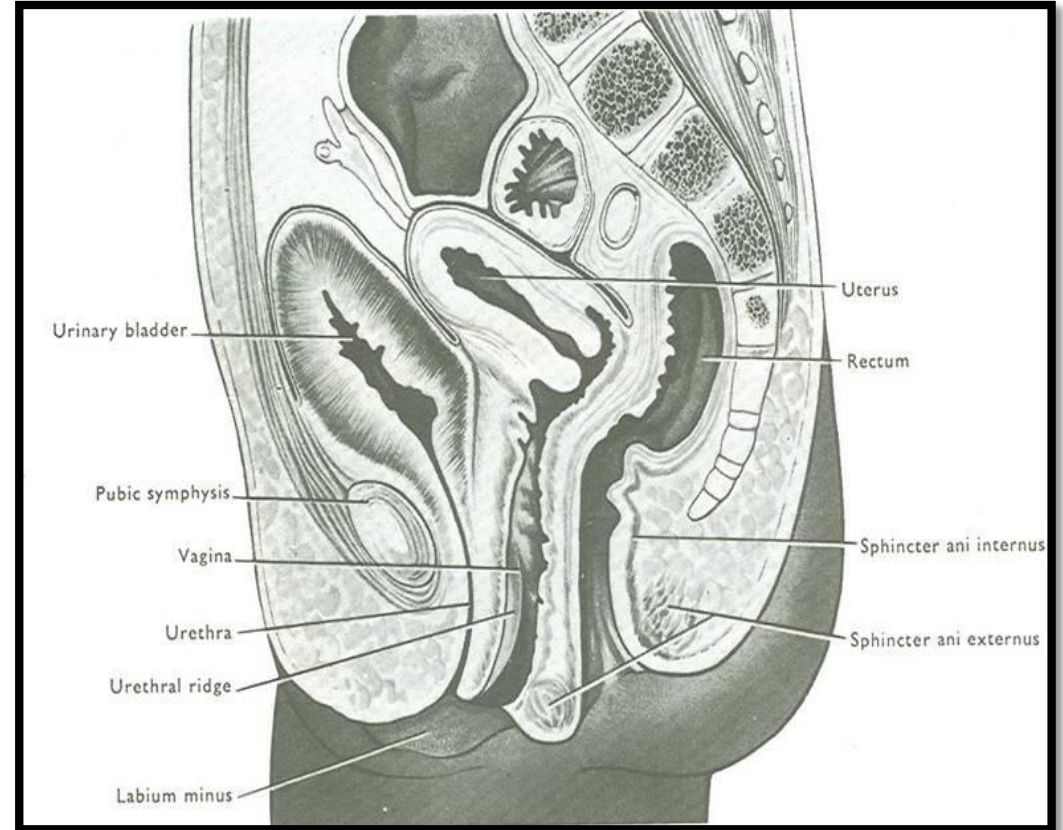


Uvula vesicae: elevation behind internal urethral orifice, produced by **median lobe of prostate gland (M)**

Urinary Bladder : Postion (Boys' lecture)

- Is found in abdomen until age of 6 years
- Begins to enter the enlarging pelvis from age of 6 years onward
- Is found entirely in pelvis at puberty

Notice that the apex of bladder isn't at the level of the upper border of symphysis pubis, it is a little higher and when the person has gone through puberty it will finish descending at that level

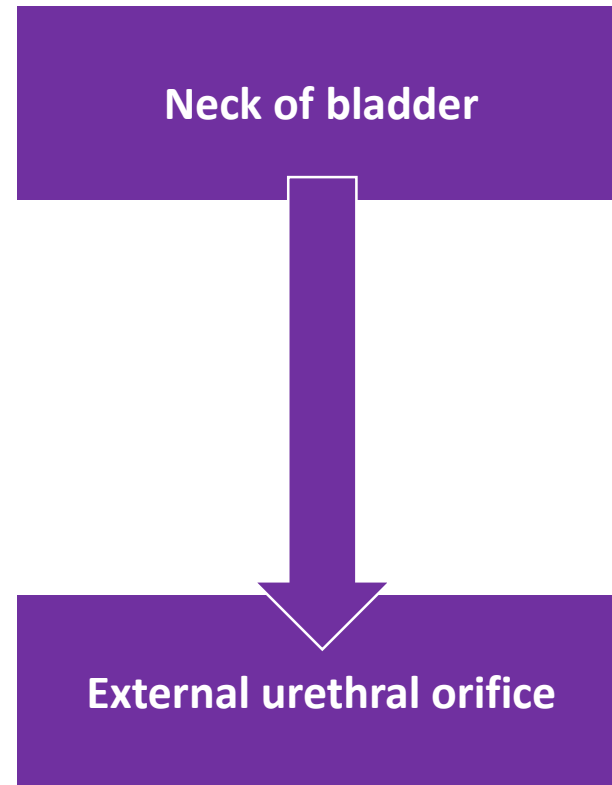


A median sagittal section of a newborn female child

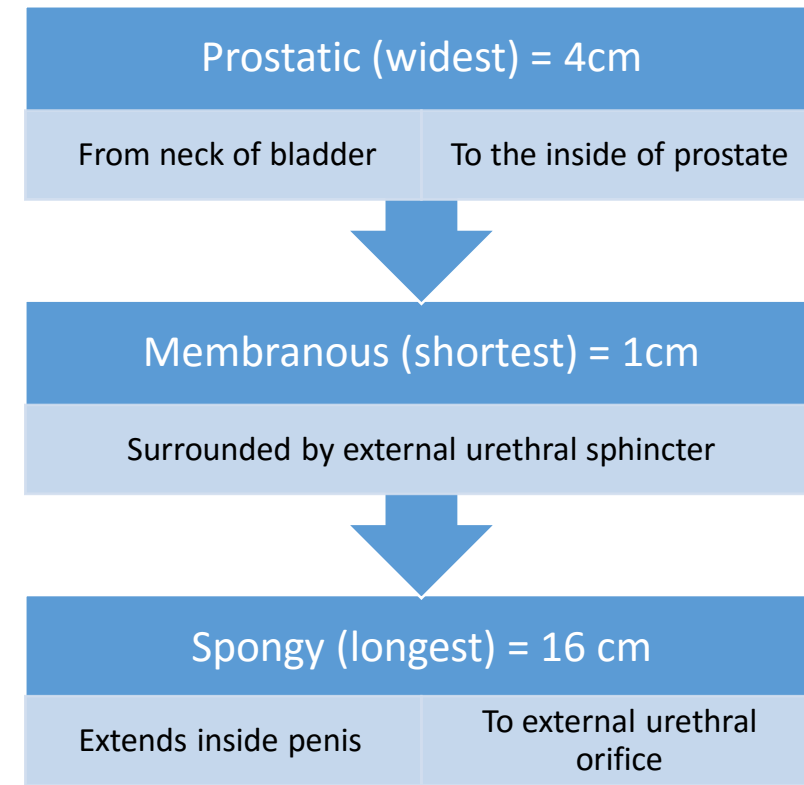
Urethra: Male & Female

/	Male	Female
length	20 cm	4 cm
sections	Prostatic Membranous spongy	-----
Openings	Ejaculatory ducts + ducts of prostate	None (only urinary function)

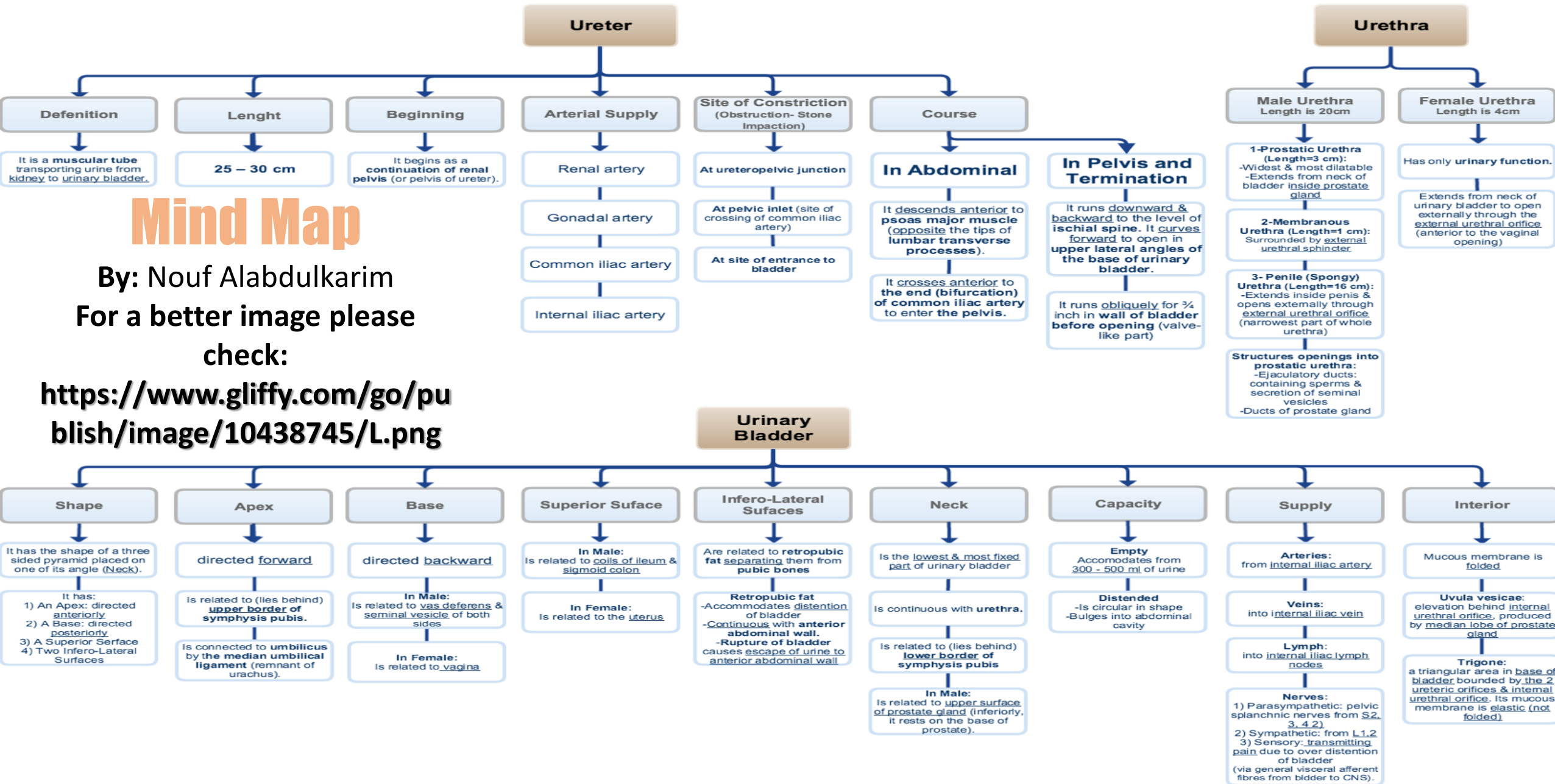
Urethra course: female



Urethra course: male



Anatomy of Ureters, Urinary Bladder and Urethra



Mind Map

By: Nouf Alabdukarim

For a better image please check:

<https://www.glify.com/go/publish/image/10438745/L.png>

Quiz

- 1) The length of the ureter is :
 - A. 20 – 25
 - B. 25 – 30
 - C. 20 – 30
 - D. 15 – 25
- 2) In abdomen, the ureter is anterior to:
 - A. Psoas Minor
 - B. Quadratus Lumborum
 - C. Transversus Abdominis
 - D. Psoas Major
- 3) The ureters will keep going downward and backward till they reach the level of:
 - A. Symphysis pubis
 - B. Ala of ilium
 - C. Ischial spine
 - D. Coccyx
- 4) Which is the **first** common site of constriction of ureters:
 - A. Ureteropelvic junction
 - B. Pelvic inlet
 - C. Level Common iliac artery bifurcation
 - D. Bladder entrance

C (8)
C (7)
B (9)
C (5)
A (4)
C (3)
D (2)
B (1)

- 5) Which is not participating in Arterial supply of ureter:
 - A. Ovarian artery (gonadal)
 - B. Renal
 - C. External iliac
 - D. Internal iliac
- 6) The apex of bladder is connected to the umbilicus via:
 - A. Medial Umbilical ligament
 - B. Median Umbilical ligament
 - C. Inguinal ligament
 - D. Psoas Major
- 7) The base of bladder is related in males to:
 - A. Vas deferens
 - B. Seminal Vesicle
 - C. A&B
 - D. Vagina
- 8) In females, the upper surface of the bladder is related to:
 - A. Sigmoid colon
 - B. Ileum
 - C. Uterus
 - D. None of above

Quiz

- 1) If the bladder ruptures towards the anterior abdominal wall the urine will escape to:
 - A. Uterus
 - B. Vagina
 - C. Prostate
 - D. Retropubic fat
- 2) Related to lower border of symphysis pubis:
 - A. Apex of bladder
 - B. Ureter
 - C. Urethra
 - D. Neck of bladder
- 3) Related to upper border of symphysis pubis:
 - A. Apex of bladder
 - B. Ureter
 - C. Urethra
 - D. Neck of bladder
- 4) Uvula vesicea is an elevation caused by:
 - A. Lower lobe of Prostate
 - B. Symphysis Pubis
 - C. Median lobe of prostate
 - D. Anterior lobe of prostate

A (8)
A (7)
B (9)
C (5)
C (4)
A (3)
D (2)
D (1)

- 5) The bladder is interiorly folded except for the _____ which is _____:
 - A. Trigon , non elastic
 - B. Uvula vesicae , Folded
 - C. Trigon , elastic
 - D. Uvula vesicae , non elastic
- 6) Which is NOT found in the trigon area:
 - A. Internal urethral orifice
 - B. External urethral orifice
 - C. Ureteric orifices
 - D. All of above
- 7) The openings found in male urethra are:
 - A. B&D
 - B. Ejaculatory ducts
 - C. None
 - D. Ducts of prostate
- 8) In males, the widest part of the urethra is:
 - A. Prostatic
 - B. Spongy
 - C. Membranous
 - D. None of above

هذا العمل إجتهد من طلاب و طالبات
إن أصبنا فمن الله وإن أخطأنا فمن أنفسنا و من الشيطان

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