



د بولي سېسټم اناټومي (urinary system anatomy)

سناتور جواد سيف

ترتيب:

۱۳۹۶ ه.ش

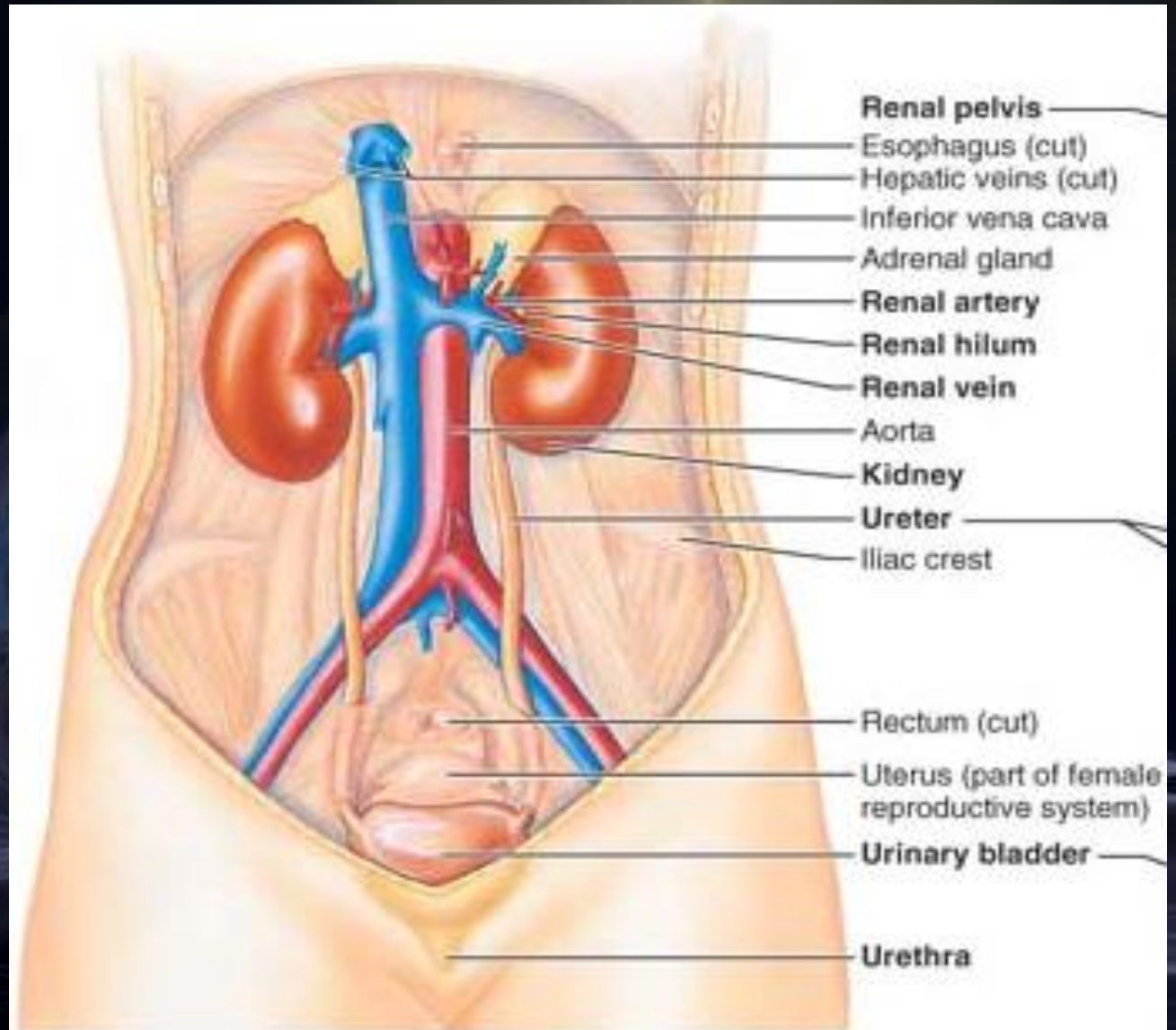
کال:

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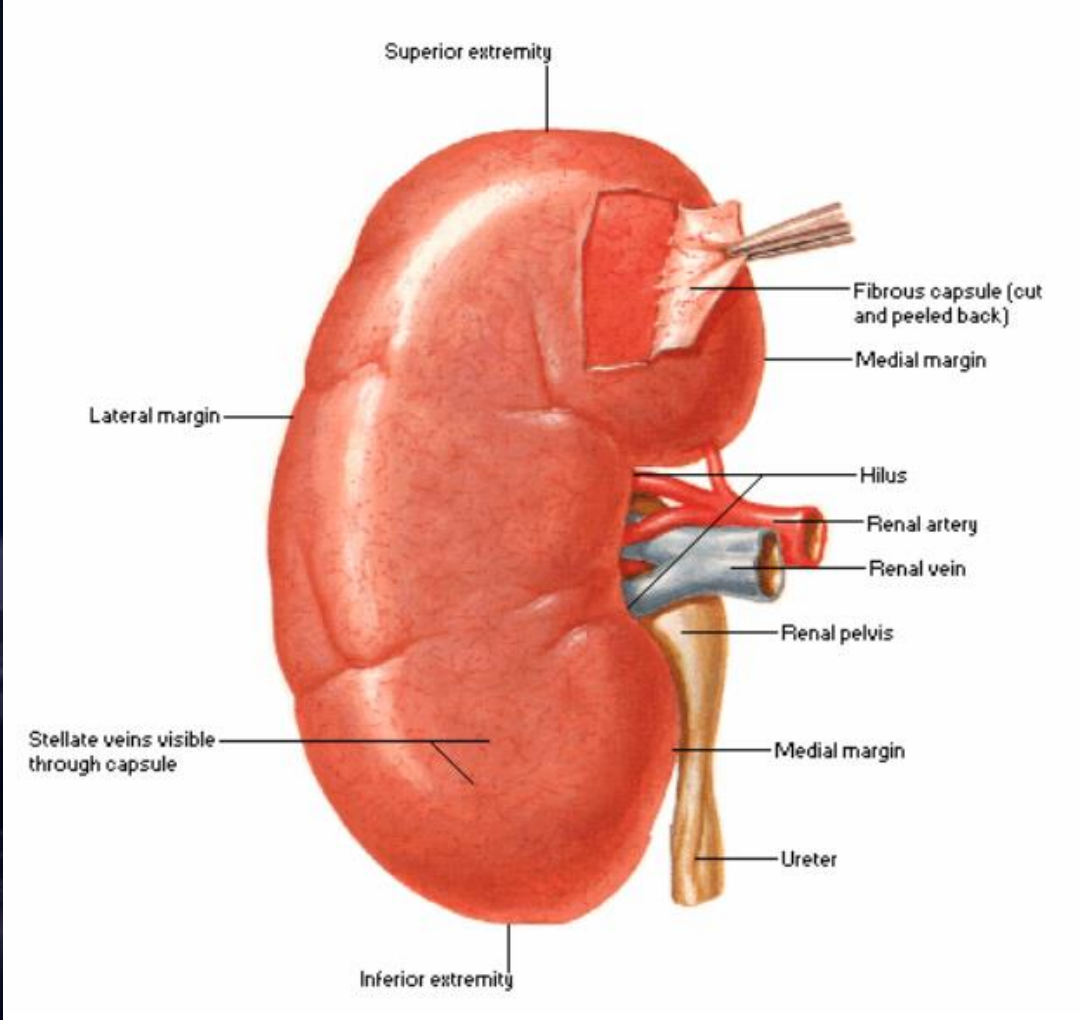
جوړوونکې برخې

- Kidneys
- Ureters
- Urinary bladder
- urethra



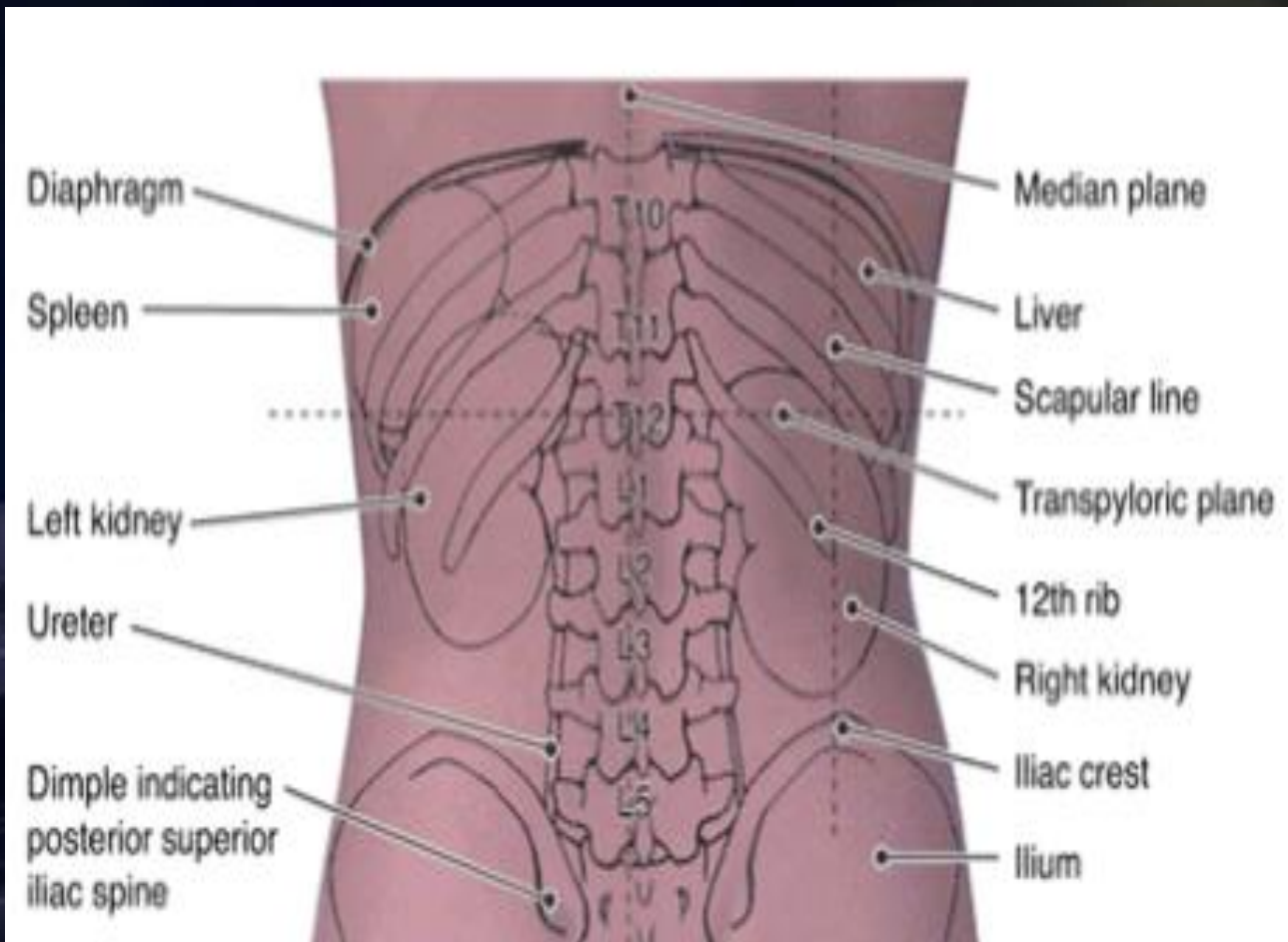
(a)

پښتورگي



- موقعيت
- شكل، حجم او وزن
- خارجي منظره
- ساختمان

ادامه...



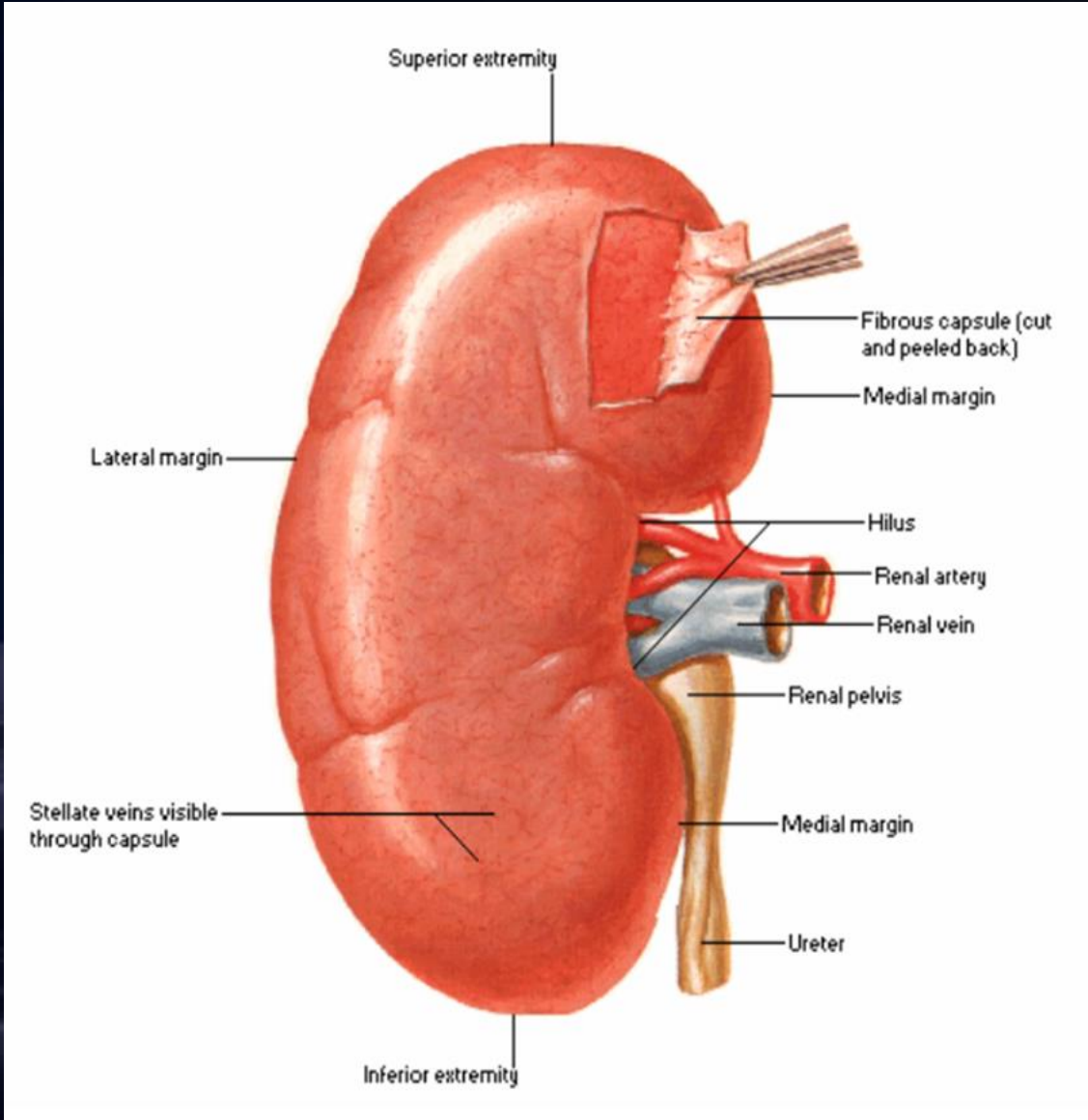
د بطن په خلفي جدار کې د T12 څخه تر L3 برابر ، د پرېټنوان شاته د ستون فقرات دواړو خواوو ته قرار لري.

چپ پښتورگی د بڼې په نسبت 1,25cm پورته پروت دی. شکل: لوبیا ته ورته دی.

حجم: 11cm اوږد، 6cm عریض او 3cm ضخیم..

وزن : نارینه= 150gm ، بڼحینه= 135gm

خارجي منظره



- رنگ: سور نصواري...
- دوه نهايتونه (پورته او بنکته)
- دوه کنارونه (وحشي : محذب او انسي : مقعر)
- دوه مخونه (قدامي : غير منظمه او خلفي : هواره)

➤ Macroscopic structure:

1. Renal cortex
2. Renal medulla
3. Renal sinus

- Cortex parts:

- ✓ Cortical arches: cover pyramid base= renal lobe

- ✓ Cortical column: between pyramids

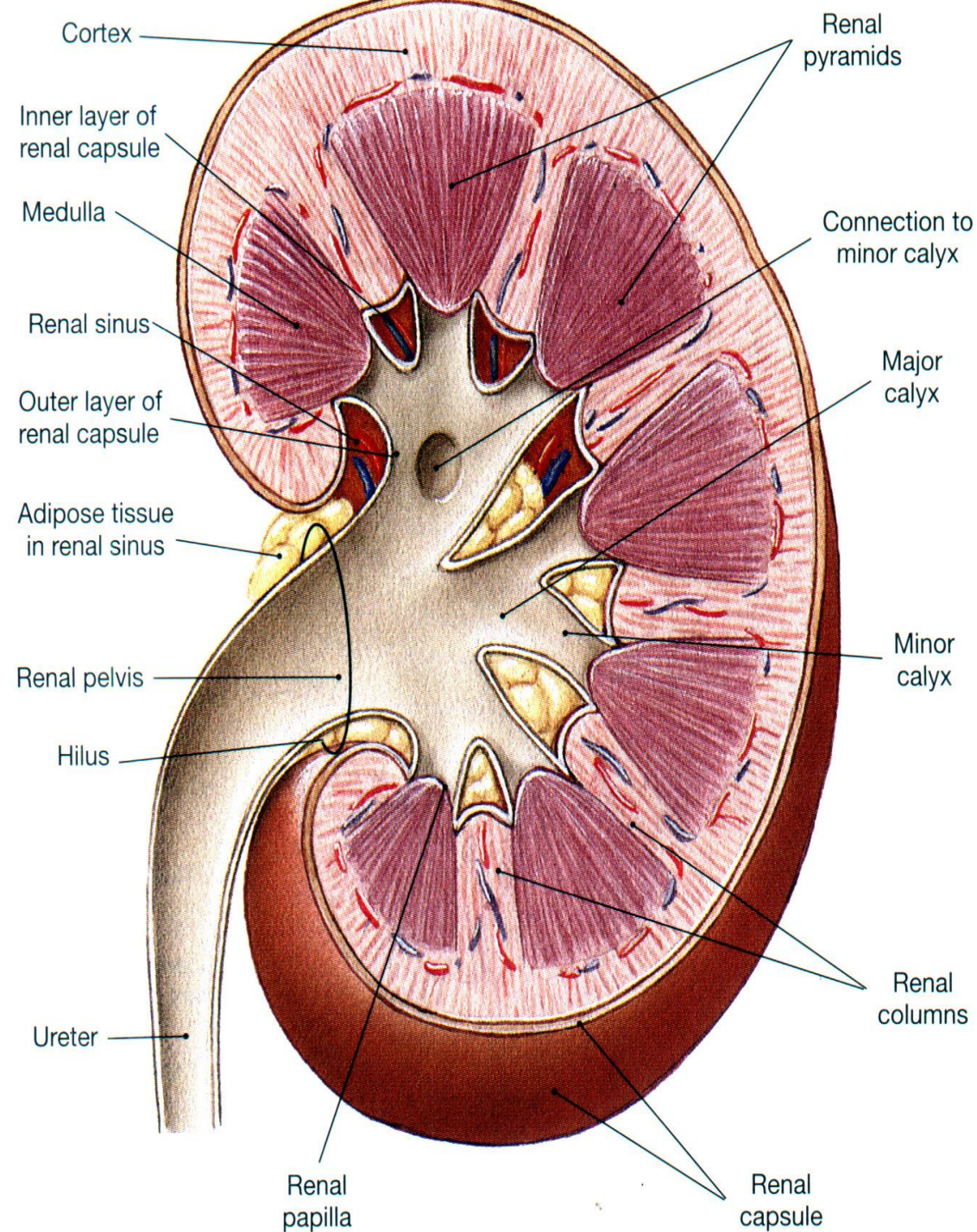
- Renal medulla: pyramidal masses:

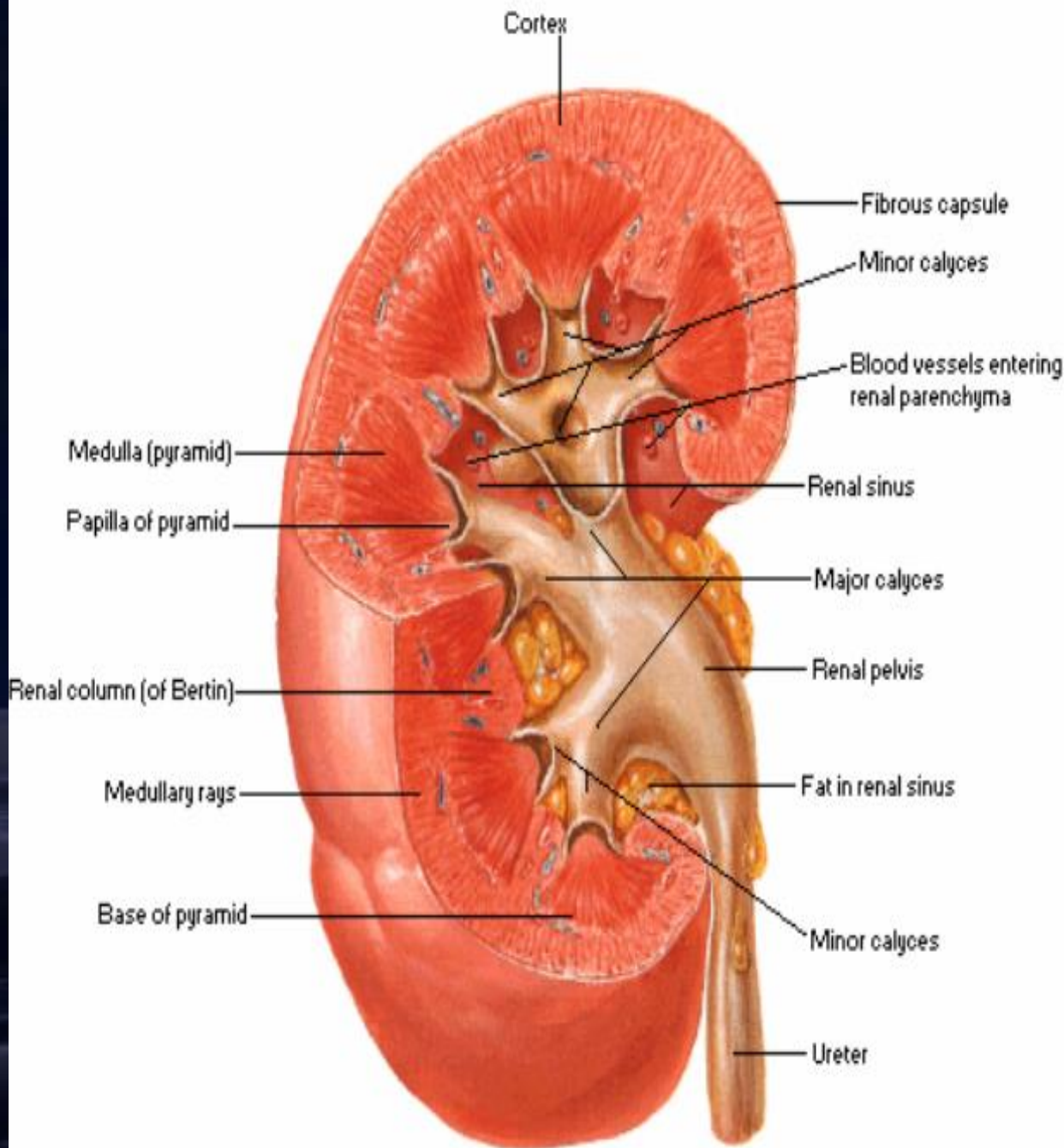
- renal pyramid (base and apex or renal papilla)

- Renal sinus:

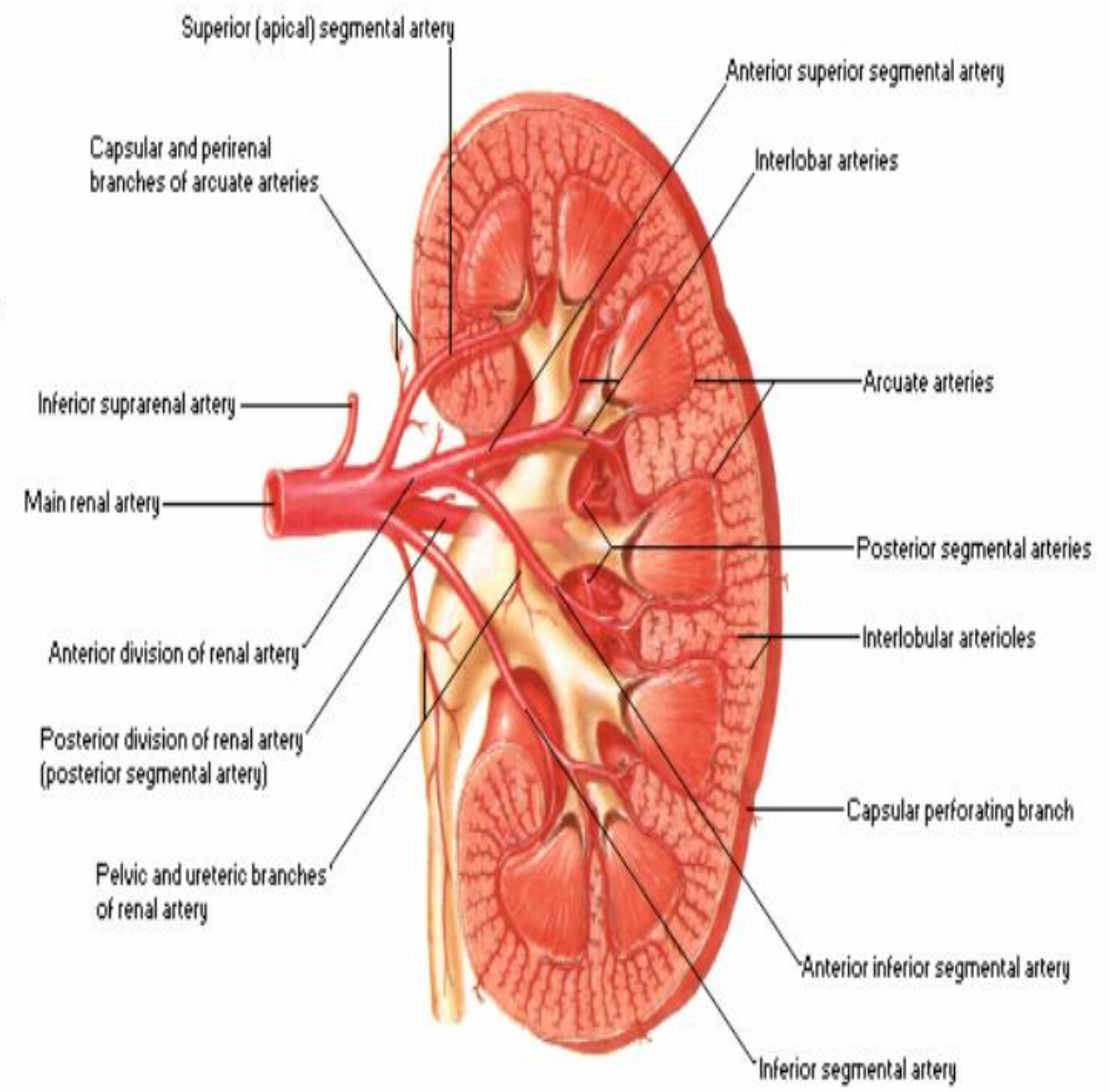
- ✓ Minor calyces 8-15/kidney

- ✓ Major calyces 2-3/kidney---renal pelvis



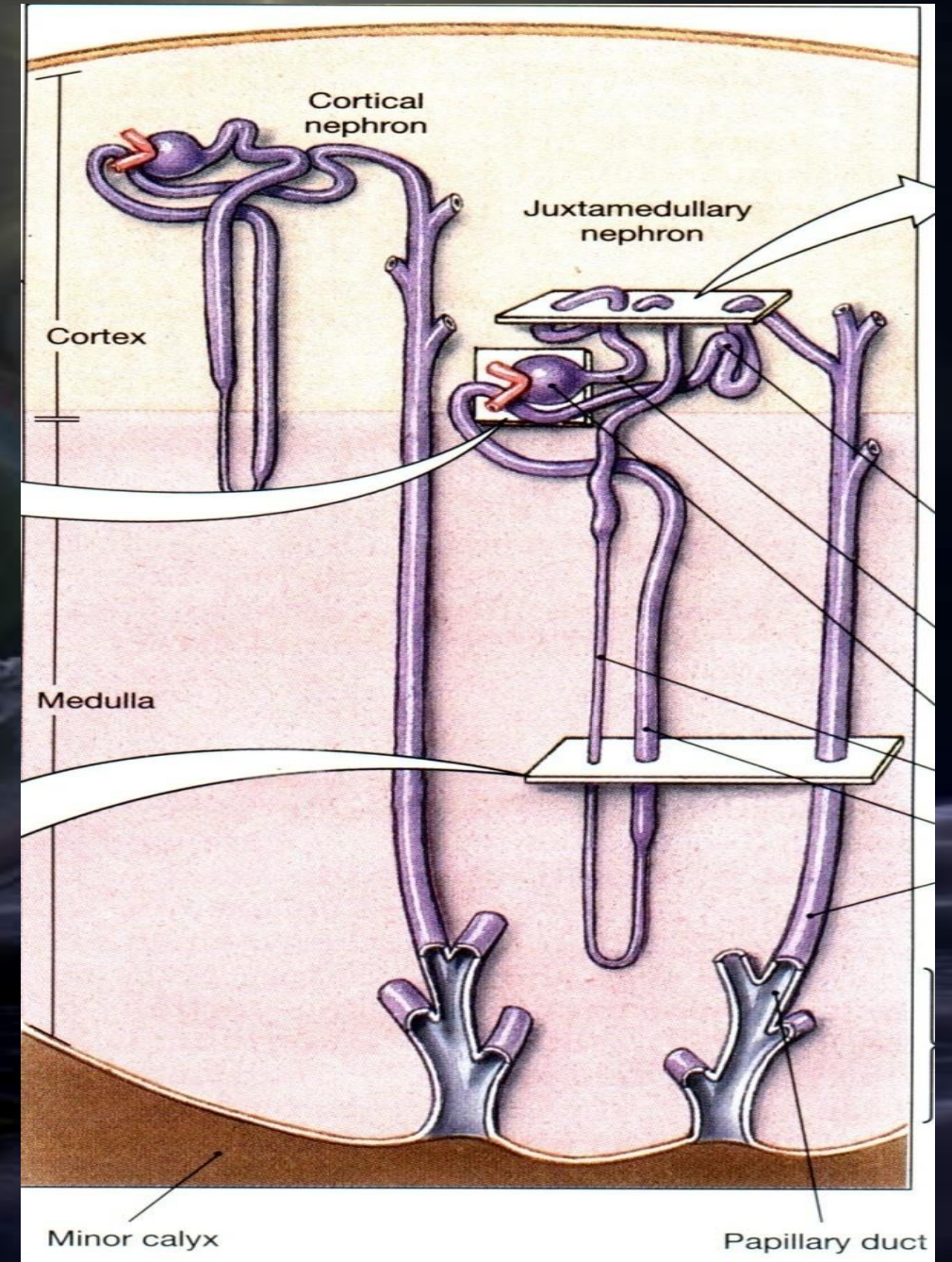


Frontal Section of Left Kidney - Anterior View

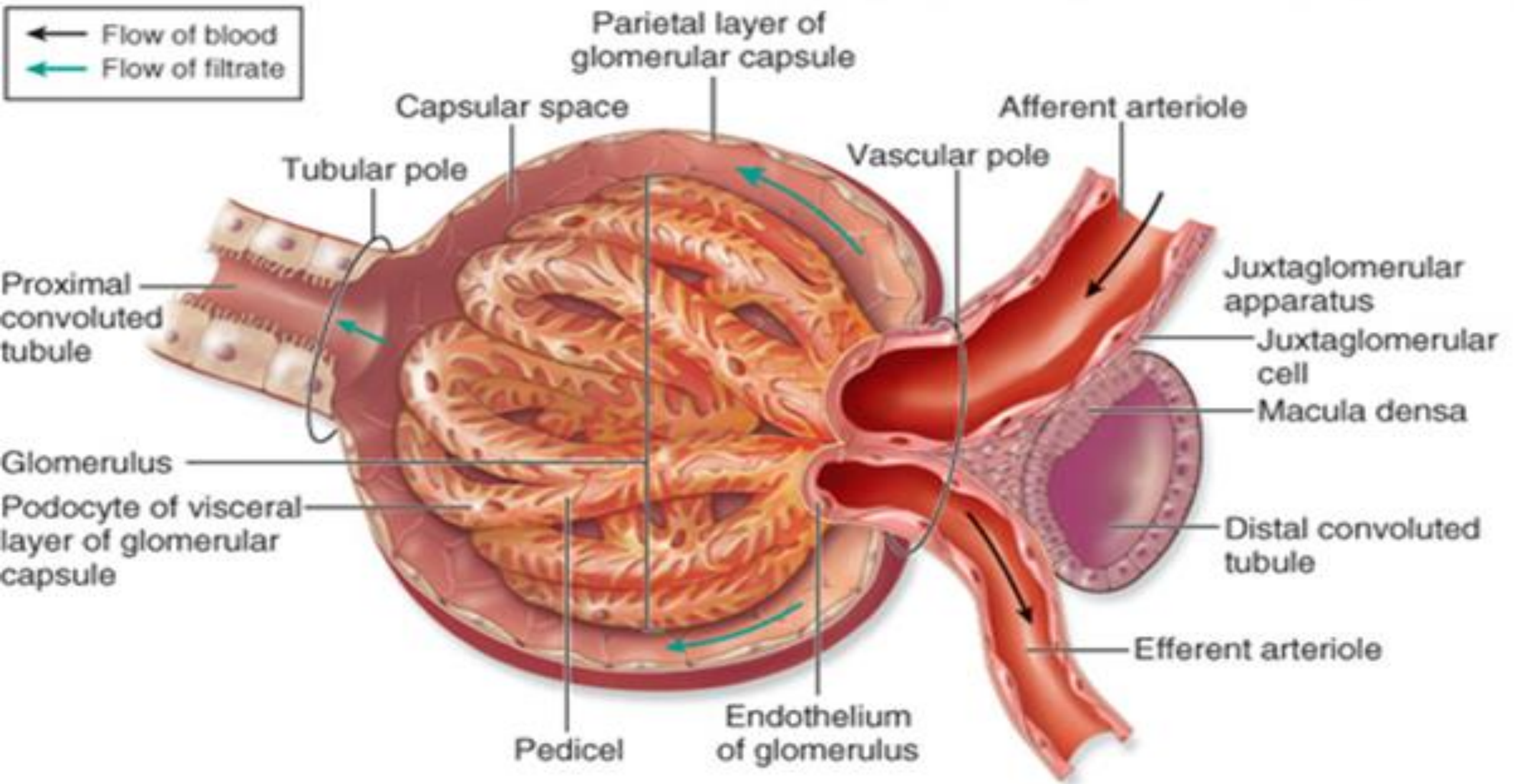


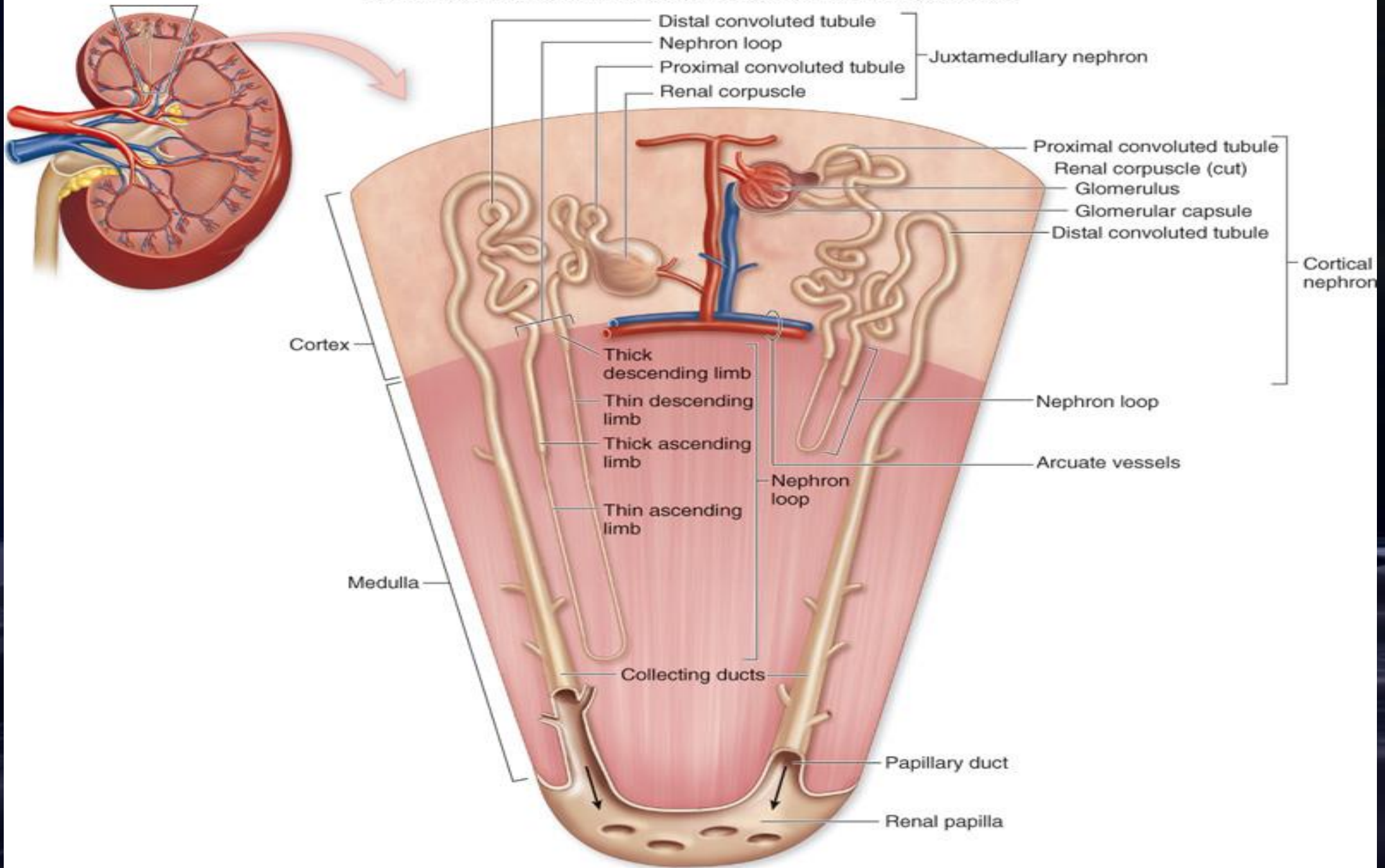
Microscopic structure

- Nephron
 - Renal corpuscle (glomerulus and bowman's capsule)
 - Renal tubules(proximal CT, loop of Henle and distal CT)



← Flow of blood
← Flow of filtrate



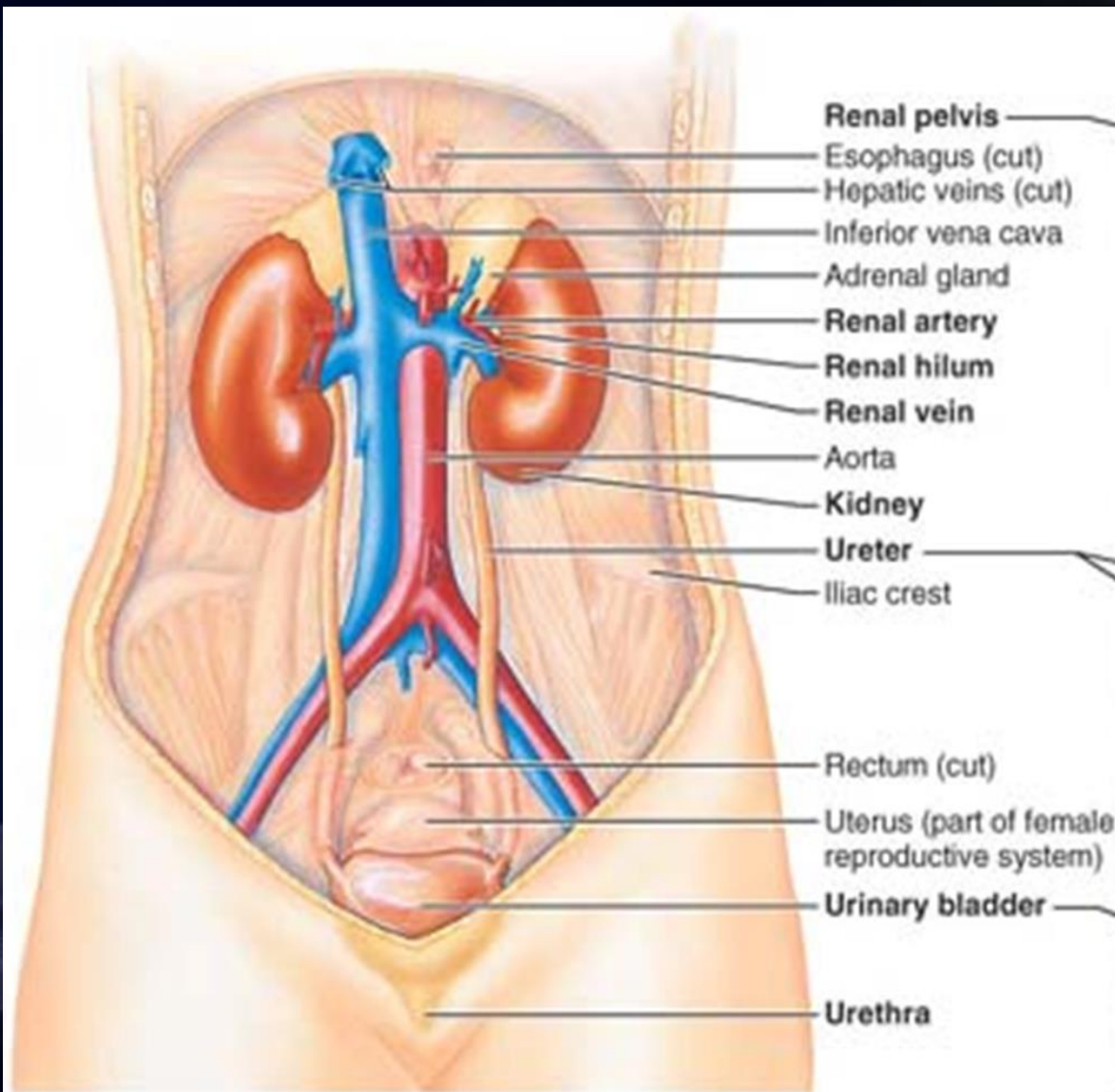


حالبونه

• موقعيت او سير:

• برخي:

• اناتوميكي ساختمان



(a)

ureter

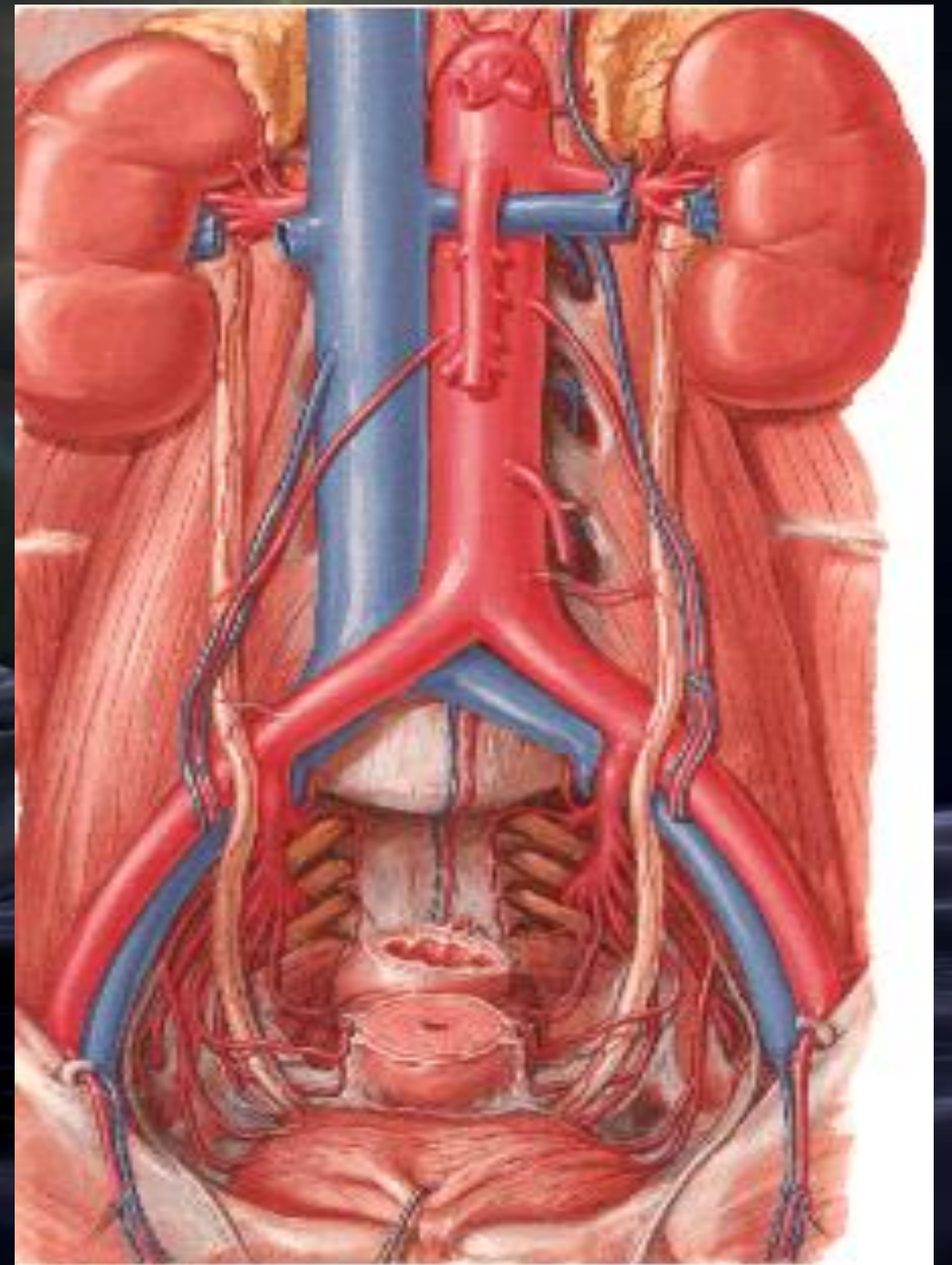
دا هغه تيوبونه دي چې د پښتورگو څخه ادرار
مټانې ته وړي.

پورتنی قسمت يې د بطن په وحشي جدار او
لاندنی يې د حوصلې په وحشي جدار کې
موقعيت لري.

اوږدوالی او قطر: 10inch او 3mm

parts

- Renal part: funnel shape in renal sinus.
- Abdominal part: medial to psoas major.
- Pelvic part: below to common iliac bifurcation.



ادامه

- Constrictions:

- Pelviurethral junction
- Brim of the lesser pelvis
- Interning to bladder wall

- Anatomical structure:

- Mucosal layer
- Muscular layer
- Serosal layer

Thank
you



مثانه

• موقعیت :

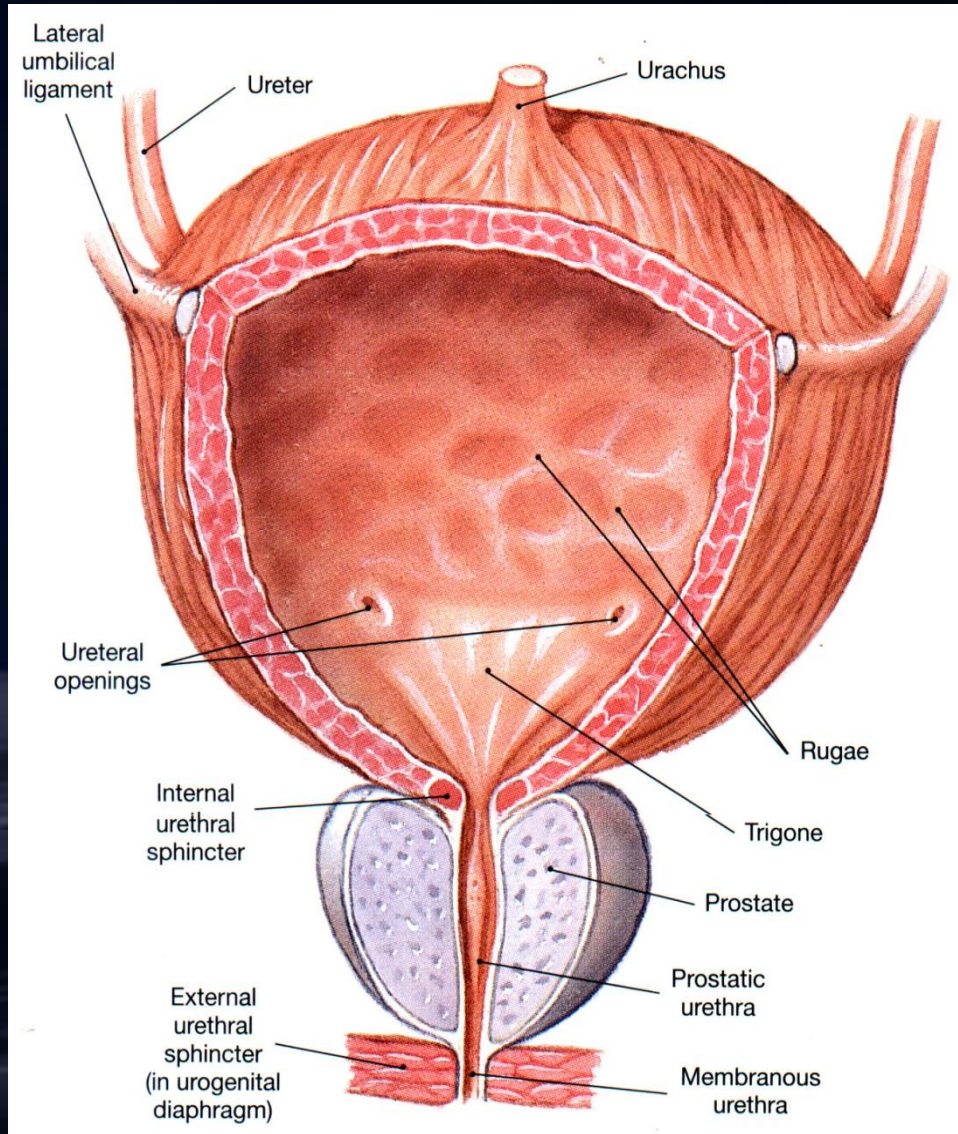
• شکل اندازه:

• برخی:

• داخلی منظره:

• آناتومیکی ساختمان:

ادامه...



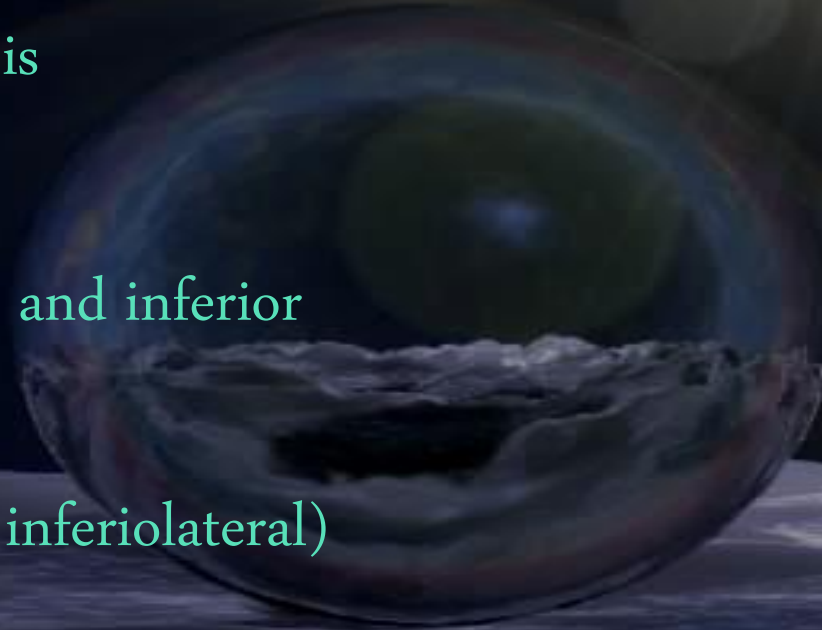
عوبنینه کڅوړه ده او ادرار ذخیره کوي... حوصله کې موقعیت لري که ډکه شي تر گېډې هم پورته کیږي.

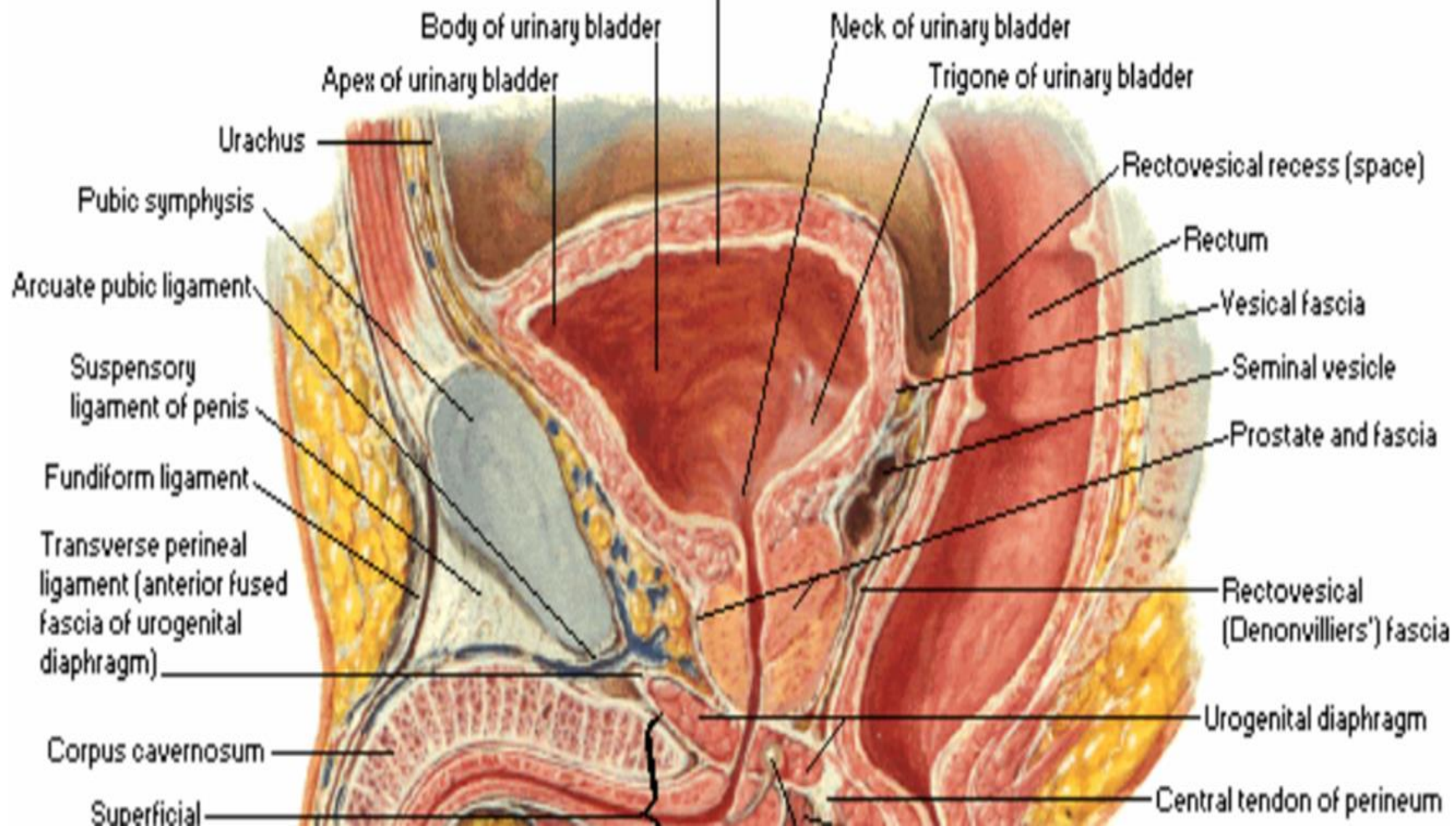
شکل او اندازه: ډکوالي او تشوالي ته توپیر کوي.

ډکه: هگۍ او تشه: څلور ضلعي ته ورته ده.

برخی

- Apex: post to symphysis pubis
- Base: posteroinferiorly
- Neck: at the junction of base and inferior lateral surface.
- Three surfaces(sup and two inferiolateral)

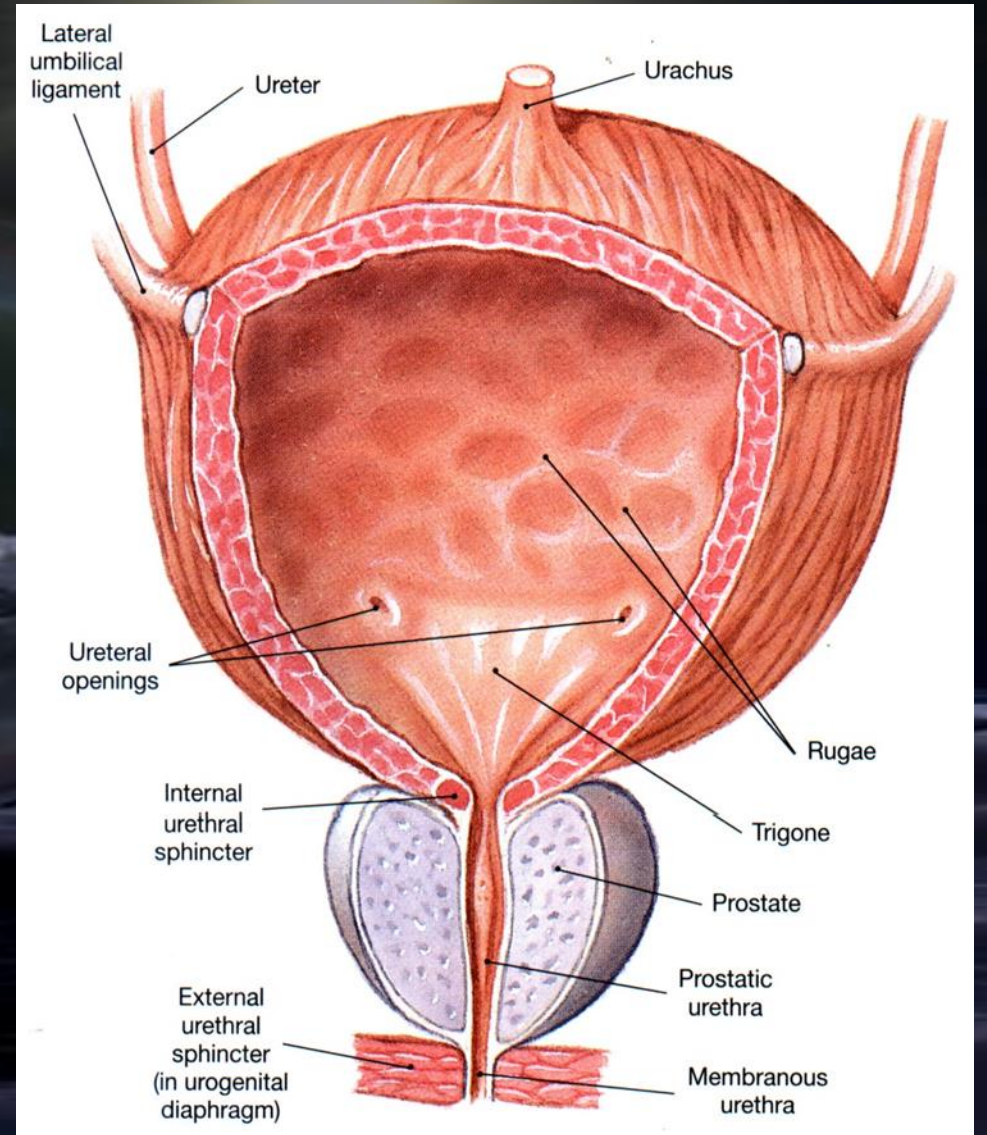




Internal feature

Mucosal membrane- rugae

But only trigon part: base inferior part



ادامه...

- Anatomical structure:

- Mucosa
- Muscular
- serosa

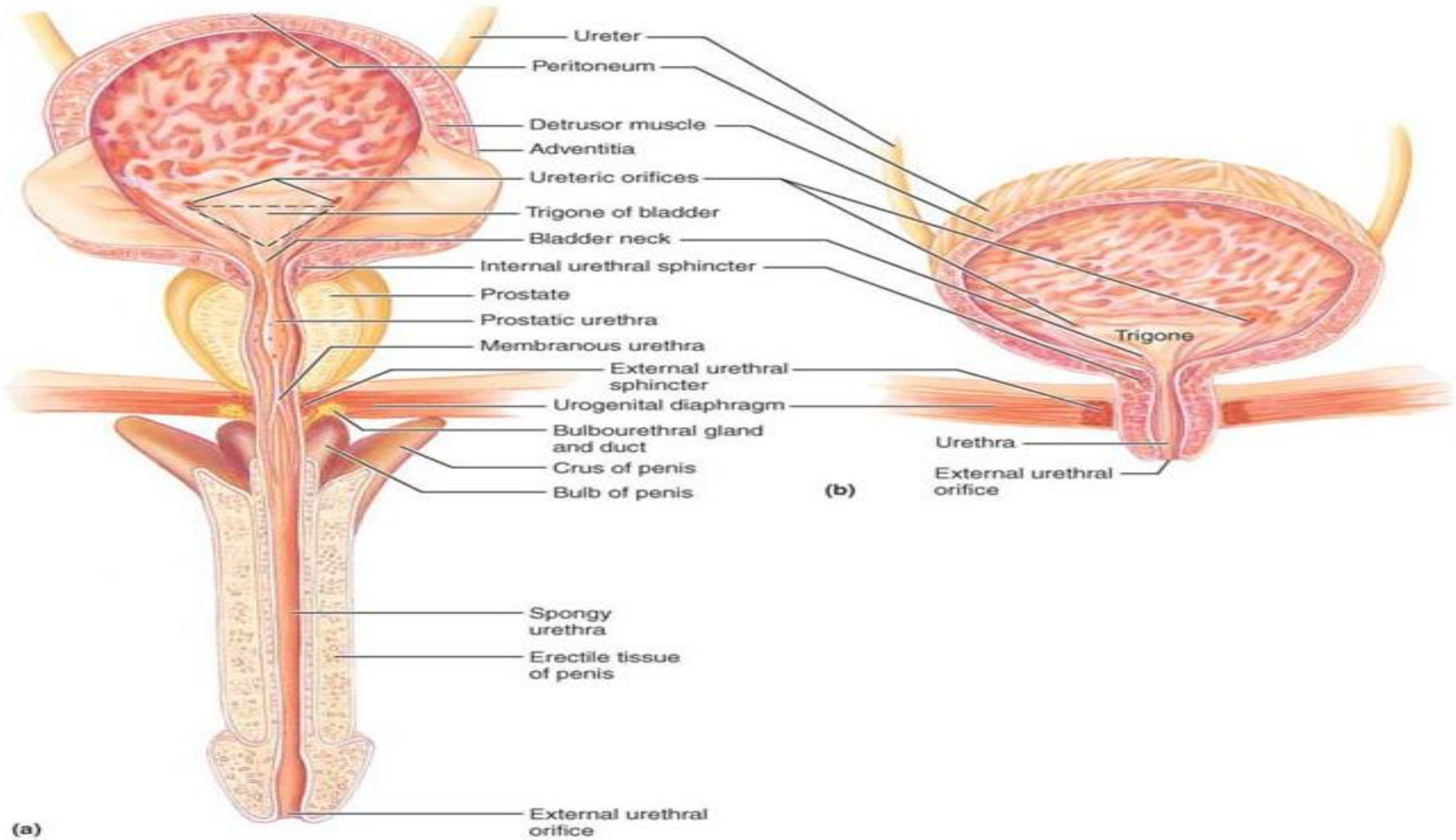
- Valium:

- Adult: 120- 320(220cc)
- Maximum: 500-800cc



Male and female urethra

- From internal orifice to glance penis
- 18-20cm
- Parts:
 - ✓ Prostatic part: 3cm
 - ✓ Membranous part; 2CM
 - ✓ Spongy (penile part) ; 15cm
- From internal orifice to vaginal vestibule
- 4cm



(a)

(b)

Ureter

Peritoneum

Detrusor muscle

Adventitia

Ureteric orifices

Trigone of bladder

Bladder neck

Internal urethral sphincter

Prostate

Prostatic urethra

Membranous urethra

External urethral sphincter

Urogenital diaphragm

Bulbourethral gland and duct

Crus of penis

Bulb of penis

Spongy urethra

Erectile tissue of penis

External urethral orifice

Trigone

Urethra

External urethral orifice

