

RENAL PELVIS

KIDNEY

URETERS

BLADDER

URETERS

* Ureter :-

- Ayurvedic Name :- शरिरा शिनी
- Modern Name :- Ureter.

→ The ureter is a thick-walled muscular tube with narrow lumen.
→ carries urine from the kidney to urinary bladder.

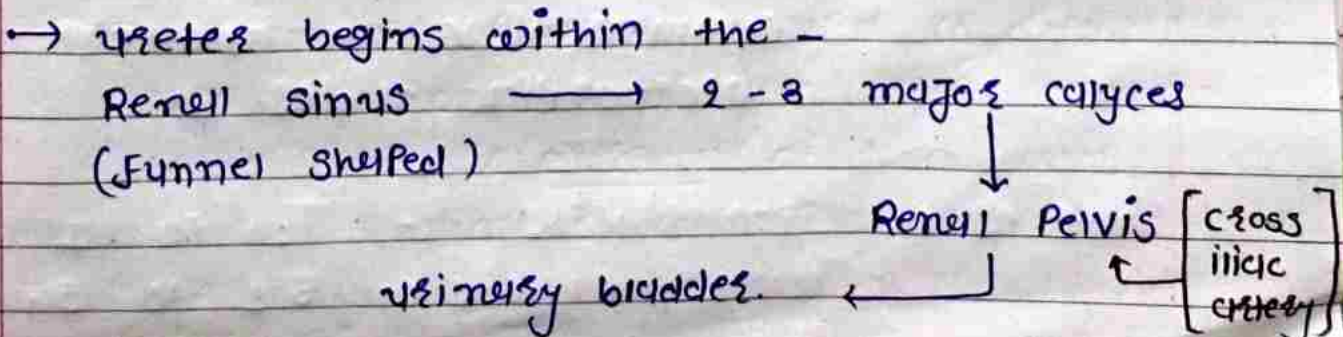
• Location :- Lies in deep to Peritoneum.
- closely applied to posterior abdominal wall.

• Length :- 25 cm (10 inch)

• Upper half	←	→	• Lower half
- 12.5 cm			- 12.5 cm
- lies in <u>abdomen</u>			- lies in <u>pelvis</u>

• Diameter :- 3 mm.

• course



- 5 Places where slightly constricted
 1. Pelvi-ureteric Junction
 2. Isthmus of the lesser Pelvis
 3. Crossing - ductus deferens (Male)
- broad ligament of uterus (Female)
 4. during passage the bladder neck
 5. opening in trigone.

• Relations

1) Inside the kidney.

- Renal sinus - Branches of Renal vessels
are present Antero - Posteriorly

2) outside the kidney.

Renal Pelvis	Anterior Relations	Posterior Relations
Right	- Renal vessels - 2nd part of duodenum	- Psoas major muscle
Left	- Renal vessels - Pancreas, Jejunum Peritoneum	- Psoas major muscle

3) Abdominal Part's Relation.

Part	Anterior	Posterior	Medially
• Right	<ul style="list-style-type: none"> - 3rd part of duodenum - Peritoneum - Terminal part of ileum - Right testicular (Male) - Right ovarian (Female) 	<ul style="list-style-type: none"> - Right Psoas major muscle - Genito-femoral nerve 	<ul style="list-style-type: none"> - Inferior Vena cava.
• Left:	<ul style="list-style-type: none"> - Sigmoid colon - Peritoneum - Left testicular (Male) - Left ovarian (Female) 	<ul style="list-style-type: none"> - Left Psoas major muscle - Genito-femoral nerve 	<ul style="list-style-type: none"> - Left gonadal vein - Inferior mesenteric vein.

4) Pelvic Part's (downward)

Posterior → Intermal iliac vessels, Lumbo-sacral trunk
 Lateral → Obturator nerve - artery - vein,
 Ovarian fossa (Female)
 etc...

5) Pelvic Part's (forward)

Male → Ductus deferens, Seminal vesicles etc
 Female → Broad ligament, uterine artery, vagina etc

• Intervesical Part —

- both uteres approach the bladder 5 cm apart
- enter the bladder wall in Infero-medial direction

• Layers —

- Inner
- ↓
- to
- outer
- i) Mucous layer — It is lined with transitional epithelium
 - longitudinal folds present
 - ii) Muscular layer — Smooth muscle fibres
 - arranged longitudinally & circularly
 - iii) Adventitial layer — made up of fibrous tissue

- Arteries :-
- Upper part — branch of Renal artery
 - middle part — branch of aorta
 - Pelvis part — branch of vesical, middle Rectal orl. uterine vessels.

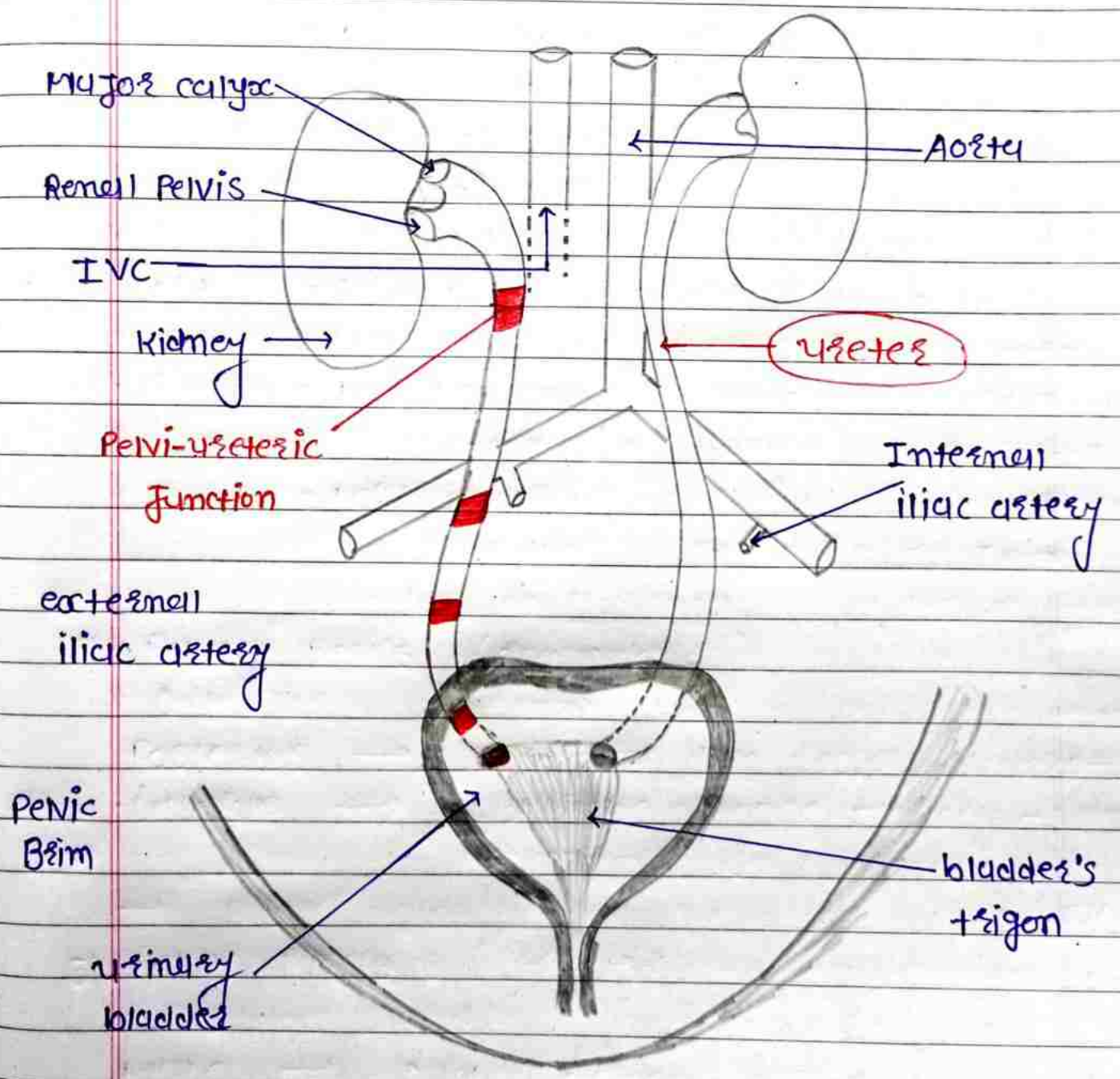
• Veins :- * corresponding to above arteries

• Lymphatics :- Drain into lateral celiac, common iliac, external and internal iliac nodes.

• Nerves :- Sympathetic :- T10 to L1
Para sympathetic :- S2 to S4

Clinical Anatomy

- i) ureteric colic :- It is an emergency condition associated with severe pain due to obstruction of the ureter.
- ii) ureteric calculi :- These are stones that form in or travel down to the ureters.



(Urinary system.)