

1- (Ureter)	
Definition	It is a muscular tube transporting urine from kidney to urinary bladder.
Length	25 – 30 cm
Beginning	It begins as a continuation of renal pelvis (pelvis of ureter).
Coarse of ureter	
In abdomen	<ul style="list-style-type: none"> ▪ It descends anterior to psoas major muscle (opposite the tips of lumbar transverse processes). ▪ It crosses anterior to the end (bifurcation) of common iliac artery to enter the pelvis.
In pelvis	<ul style="list-style-type: none"> ▪ It runs downward & backward to the level of ischial spine. ▪ It runs obliquely for ¼ inch in wall of bladder before opening (valve-like part).
Termination	<ul style="list-style-type: none"> ▪ opens at <u>upper lateral angle</u> of <u>base</u> of urinary bladder
Sites of constriction*	<ul style="list-style-type: none"> ▪ At Uteropelvic junction ▪ At Pelvic inlet ▪ At site of entrance of bladder
Arterial supply	<ul style="list-style-type: none"> ▪ Renal artery ▪ Gonadal artery ▪ Common iliac artery ▪ Internal iliac artery

2- (Urinary bladder)

It has the shape of three-sided pyramid placed on one of its angle (NECK).

Apex	Base	Superior surface		2 Infero-lateral surfaces	Neck	
<ul style="list-style-type: none"> ▪ directed Anteriorly and forward. ▪ Lies behind the upper border of symphysis pubis. ▪ Is connected to umbilicus by the median umbilical ligament (remnant of urachus). ▪ It is the same for both males and females. 	<ul style="list-style-type: none"> ▪ directed posteriorly and backward. 		Males	<ul style="list-style-type: none"> ▪ Are related to Retropubic fat separating them from pubic bones. ▪ Accomodates distention of bladder. ▪ Continuous with anterior abdominal wall. ▪ Rupture of bladder <u>escape</u> of urine to anterior abdominal wall. 	<ul style="list-style-type: none"> ▪ Is the lowest & most fixed part of urinary bladder. ▪ Is continuous with urethra. ▪ Is related to (lies behind) lower border of symphysis pubis <li style="background-color: yellow;">IN MALE: ▪ Is related to upper surface of prostate gland (inferiorly, it rests on the base of prostate). 	
	Females	Females	<ul style="list-style-type: none"> 1-Coils of ileum. 2-Sigmoid colon 			<ul style="list-style-type: none"> Is related to the uterus
	<ul style="list-style-type: none"> 1-Vas deferens 2- Seminal vesicle of both sides. 	<ul style="list-style-type: none"> Is related to vagina 				

Interior part of the urinary bladder

Trigone	Uvula vesicae
<ul style="list-style-type: none"> ▪ A triangular area in base of bladder <u>bounded by</u> : 2 ureteric orifices & internal urethral orifice ▪ Its mucous membrane is elastic (not folded) 	<ul style="list-style-type: none"> ▪ Elevation behind internal urethral orifice, produced by median lobe of prostate gland

Capacity of Urinary bladder

Empty	Distended
<ul style="list-style-type: none"> ▪ Accommodates from 300 – 500 ml of urine 	<ul style="list-style-type: none"> ▪ Is circular in shape ▪ Bulges into abdominal cavity

Urinary bladder Supply

Arteries	Veins	Lymph	Nerves
Internal iliac <u>artery</u>	Internal iliac <u>vein</u>	internal iliac <u>lymph nodes</u>	<ol style="list-style-type: none"> 1) Parasympathetic: pelvic splanchnic nerves from: [S2, 3, 4]. 2) Sympathetic: from L1,2 3) Sensory: transmitting pain due to overdistention of bladder. (via general visceral afferent fibers from bladder to CNS).

3 - (Urethra)

Males	Females
<ul style="list-style-type: none"> ▪ Length = 20 cm. PROSTATIC URETHRA (Length=3 cm): <ul style="list-style-type: none"> - Widest & most dilatable - Extends from neck of bladder inside prostate gland [Structures openings into prostatic urethra] : <ul style="list-style-type: none"> • Ejaculatory ducts: containing sperms& secretion of seminal vesicles • Ducts of prostate gland MEMBRANOUS URETHRA (Length=1 cm): <ul style="list-style-type: none"> - Surrounded by external urethral sphincter PENILE (SPONGY) URETHRA (Length=16 cm): <ul style="list-style-type: none"> - Extends inside penis & opens externally through external urethral orifice (narrowest part of whole urethra)* 	<ul style="list-style-type: none"> ▪ Length = 4 cm. ▪ Has only urinary function. ▪ Extends from neck of urinary bladder to open externally through the external urethral orifice (anterior to the vaginal opening)

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