

Ureter											
Course	<p>1- The renal pelvis is the funnel-shaped expanded upper end of the ureter.</p> <p>2- The ureter emerges from the hilum of the kidney and runs vertically downward behind the parietal peritoneum (adherent to it)</p> <p style="text-align: center;">which separates it from the tips of the transverse processes of the lumbar vertebrae</p> <p>3- on the psoas muscle</p> <p style="text-align: center;">in front of the sacroiliac joint</p> <p>4- It enters the pelvis by crossing the bifurcation of the common iliac artery</p> <p style="text-align: center;">in front of the internal iliac artery</p> <p>5- The ureter then runs down the lateral wall of the pelvis to the region of the ischial spine</p> <p>6- turns forward to enter the lateral angle of the bladder</p> <p>7- The ureter passes obliquely through the wall of the bladder for about 0.75 in. (1.9 cm) before opening into the bladder</p> <p>8- Near its termination, it is crossed by the vas deferens</p>										
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Definasion	<p>1- Each ureter measures about 10 in. (25 cm) long and resembles the esophagus</p> <p>2- in having three constrictions (normal along its course):</p> <div style="margin-left: 20px;"> <p>— where the renal pelvis joins the ureter in the abdomen,</p> <p>— where it is kinked as it crosses the pelvic brim to enter the pelvis.</p> <p>— where it pierces the bladder wall</p> </div>										

Relations of the urinary bladder:

A- Relations of the surfaces is			
	Superior surface covered by peritoneum	Base (posterior surface)	Two Inferolateral surfaces
In male:	1) Sigmoid colon 2) Coils of small intestine.	1. The upper part is covered by peritoneum of the rectovesical pouch containing coils of small intestine. 2. The lower part is related to the rectum separated from it by <ul style="list-style-type: none"> 1) 2 Seminal vesicles. 2) 2 Ampulla of the vas deference. 3) 2 Ejaculatory ducts. 	1- have no peritoneal covering 2- related to; <ul style="list-style-type: none"> 1- Retropubic pad of fat. 2- Obturator internus muscle. 3- Levator ani muscle.
In female:	1) Anterior surface of the uterus 2) Coils of small intestine.	1- has no peritoneal covering (base) 2- It is related to the rectum separated from it by <ul style="list-style-type: none"> 1) Cervix of the uterus. 2) Anterior wall of the vagina. 	Same

B-Relations of the angles:			
	1- Apex:	2- Neck (inferior angle):	3- Postero-superior angles
In male:	1- It is directed anteriorly <small>It is separated from these bones by the potential Retropubic space (of Retzius)</small> 2- lies behind the upper border of the symphysis pubis 3- It is continuous with the umbilicus by a median umbilical ligament.	1- Inferiorly — it rests on the base of the prostate gland 2- Anteriorly — attached to the pubo-prostatic ligament 3- Posteriorly — related to the ejaculatory duct.	receive the ureters.
In female:	Same	1- Inferiorly — it rests on the pelvic fascia. 2- Anteriorly — the pubo-vesical ligament. 3- Posteriorly — the anterior wall of the vagina.	Same

It is lined by transitional epithelium and shows folds except the trigone.

1- Trigone
mesodermal in origin
 This is a triangular area on the posterior wall of the bladder wall.
 It is bound by 3 lines
 — line connecting the 2 ureteric orifices
 — And the internal urethral orifice

2- Interureteric ridge between the 2 ureteric orifices
 — between the 2 ureteric orifices
 — forms the base of the trigone.

3- Internal urethral meatus — is situated at the apex of the trigone.

4- In male, Uvula of the bladder
 — slight elevation behind the internal urethral meatus
 — is produced by the median lobe of the prostate.

5- The mucosa of trigone
 — smooth
 — vascular
 — elastic
 — sensitive

6- The walls of the bladder are composed chiefly of the detrusor muscle.

7- Size: the average capacity of the bladder is 250 cc but it can accommodate up to 500 cc of urine without discomfort

8- Shape and surfaces: ♠ When the bladder is (empty) hardened in situ, it has the shape of a four-sided pyramid.

اللَّهُمَّ مَا لَكَ الْمَلِكِ
 تُوِيَ الْمَلِكُ مِنْ تَسَاءٍ وَتَنْزِعُ الْمَلِكِ مَمَّنْ تَسَاءٍ
 وَبِعِزُّ مِنْ تَسَاءٍ وَتَدْرِكُ مِنْ تَسَاءٍ
 بِبِيَدِكَ الْخَيْرُ
 إِنَّكَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ
 رَحْمَتُ الدُّنْيَا وَالْآخِرَةِ وَرَحِيمُهُمَا
 تَعْطِيهِمَا مِنْ تَسَاءٍ وَتَمْنَعُ مِنْهُمَا مِنْ تَسَاءٍ
 أَرْحَمُنِي رَحْمَةً تُغْنِينِي بِهَا عَنْ رَحْمَةِ مَنْ سِوَاكَ!
 — نَبِيْنَا ﷺ

الموضوع الفرعي 1	
A- True ligaments;	B- False ligaments
1- Median umbilical ligament (obliterated urachus) extending from the apex to the umbilicus.	made of the peritoneal folds covering the true ligaments.
2- Two medial umbilical ligaments, obliterated umbilical arteries	1- Median umbilical fold.
3- Two Lateral true ligaments extend from the side of the bladder to the side of the pelvis.	2- Two medial umbilical folds.
4- Posterior true ligament extends from the bladder to the sacrum.	3- Two lateral false ligaments.
5- Pubo-postatic (male) Pubo-vesical (female) ligament; from the back of the pubis to the neck of the bladder.	4- Posterior false ligament.

الموضوع الفرعي 1

Arterial supply:

1- Superior vesical artery (patent part of the umbilical artery).
 2- Inferior vesical artery (in male)
 vaginal and uterine arteries (in female)

from the anterior division of the internal iliac artery

Venous drainage:

The veins form a venous plexus; then drain into the internal iliac vein.
 Lymphatic drainage:
 1- Mostly into the external iliac lymph nodes.
 2- Partly into the internal iliac, and common iliac lymph nodes.

Nerve supply:

a- Sympathetic
 — from T11, 12 and L 1, 2 segments of the spinal cord
 — It is inhibitory to the muscle wall and motor to the sphincter.

b- Parasympathetic
 — from S 2, 3, 4.
 — It is motor to the muscle wall and inhibitory to the sphincter (micturation)