Lab Time/Date

TEW SHEET

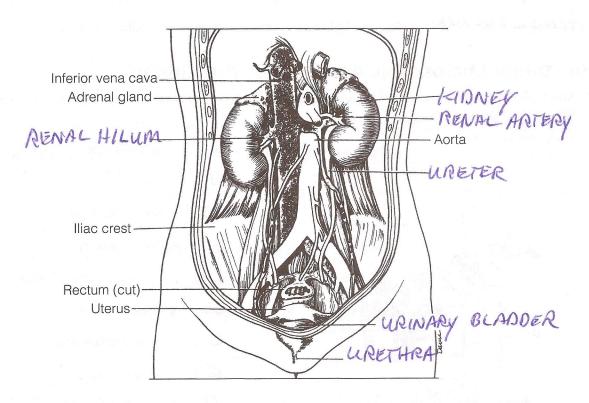
Functional Anatomy of the Urinary System

Gross Anatomy of the Human Urinary System

1. What is the function of the fat cushion that surrounds the kidneys in life? HOLDS THE KIDNEYS

THE RETROPERITONEAL CAVITY

2. Complete the labeling of the diagram to correctly identify the urinary system organs. Then respond to the questions that follow.



Which of the structures identified above is applicable to the following statements?

FIDNE	1.	maintains water and electrolyte balance of the blo
URINARY BL	ADDER 2.	serves as a storage area for urine
URETHR	4 3.	transports urine to the body exterior
RENAL ART	ERJ 4.	transports arterial blood to the kidney
KIANE	5.	produces urine

5. produces urine

URETER
6. transports urine to the urinary bladder

URETHRA
7. is shorter in women than in men

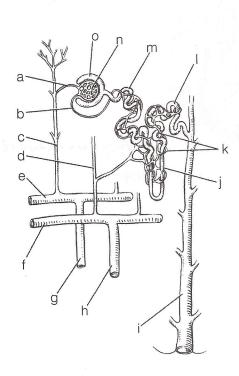
Gross Internal Anatomy of the Pig or Sheep Kidney

3. Match the appropriate structure in column B to its description in column A. (Some responses may be used more than once.)

Column A	Column B
FIBROUS CAPSULE 1. smooth membrane clinging tightly to the kidney surface	cortex
MEDULA 2. portion of the kidney containing mostly collecting ducts	medulla
CORTEX 3. portion of the kidney containing the bulk of the nephron structures	calyx
CORTEX 4. superficial region of kidney tissue	renal column
RENAL PELVIS 5. basinlike area of the kidney, continuous with the ureter	fibrous capsule
CALYX 6. an extension of the pelvis that encircles the apex of a pyramid	renal pelvis
RENAC COLUMN 7. area of cortexlike tissue running between the medullary pyramids	

Functional Microscopic Anatomy of the Kidney

4. Match each of the lettered structures on the diagram of the nephron (and associated renal blood supply) on the left with the terms on the right:



1. collecting duct

2. glomerulus

4. distal convoluted tubule

4. distal convoluted tubule

5. proximal convoluted tubule

6. interlobar artery

7. cortical radiate artery

8. arcuate artery

9. cortical radiate vein

10. efferent arteriole

11. arcuate vein

12. loop of Henle

13. afferent arteriole

14. interlobar vein

15. glomerular capsule

7. What structural modification of certain tubule cells enhances their ability to reabsorb substances from the filtrate? ***MICROVILLI** 8. Trace a drop of blood from the time it enters the kidney in the renal artery until it leaves the kidney through the renal vein. Renal artery ***SEMENTE ATTERLEBER*** ***ARCHATE ***PERTUBLIAR ***PERTUBLIAR CAPTICAL PROJECTION ATTERLEBER*** ***PERTUBLIAR CAPTICAL PROJECTION ATTERLEBER*** ***PERTUBLIAR CAPTICAL PROJECTION ATTERLEBER*** ***PERTUBLIAR CAPTICAL PROJECTION OF THE ATTERLEBER*** ***PERTUBLIAR CAPTICAL PROJECTION OF THE UNIT OF	5. Come the terms provided in question 4, identity the following:	
PROXIMIL CONSCURD TUBLE 2. primary site of tubular reabsorption COLECTING DUCT 3. structure that conveys the processed filtrate (urine) to the renal pelvis PERTUBLIAR CAPILLARIES 4. blood supply that directly receives substances from the tubular cells CLOMERUUS 5. its inner (visceral) membrane forms part of the filtration membrane 6. Explain why the glomerulus is such a high-pressure capillary bed. DECLUSE PREFERENT ARTERISES EEPING JATO JE JE 4 GREATER ALTIMITER CHAPPED TO THE EFFERENT ARTERISES How does the high pressure help the glomerulus form filtrate? THE HIGH PRESSURE HELPS TO FORCE FLUID OUT OF THE GLOMERULUS 7. What structural modification of certain tubule cells enhances their ability to reabsorb substances from the filtrate? MICROVILL 8. Trace a drop of blood from the time it enters the kidney in the renal artery until it leaves the kidney through the renal vein. Renal artery FERMENTH HATERY FANTERLABAR FROM FROM FROM FROM FROM FROM FROM FRO	GLOMERULUS 1. site of filtrate formation	
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The groups was approximated the state of the		
Explain why difficulty sis is a routine part of any good physical examination.	in transfer of the second seco	-
12. Explain why urinalysis is a routine part of any good physical examination. IF THERE ARE ABNORMAL SUBSTANCES IN THE URINE IT AN INDICATE DISEASE ISSUES IN THE BOOY	SUBSTANCES IN THE URINE IT CHN INDICATE DISEASE ISSUES IN THE BODY	>

14. Which has a greater specific gravity: 1 ml of urine or 1 ml of distilled water	er? I ML of URINE
14. Which has a greater specific gravity: I mi of urine of I iii of distinct was	THE AMOUNT OF COUNTES
Explain. SPECIFIC GRAVITY IS RELATED TO	148 11.0001 01 3000103
FN A SOLUTION + URINE WILL ALWAYS HA	VE MARE SOLUTES THAN
15. Explain the relationship between the color, specific gravity, and volume o	of urine. US WALLY THE GREATER
THE VOLUME OF URINE THE LESS COLOR I	T HAS + THE LOWER THE
THE VOLUME OF URINE THE LESS COLOR I AMOUNT OF SOLUTES + THUS LOWER SPE	CIFIC GRAVITY.
Abnormal Urinary Constituents	The same standing the
16. How does a urinary tract infection influence urine pH? IT INCO	REASES THE PH
17. Several specific terms have been used to indicate the presence of abnorm malities listed in column A might be caused by each of the conditions list	nal urine constituents. Identify which urine abnorted in column B.
Column A	Column B
HEM ATURIA 1. blood in the urine	albuminuria
HEMOGLOBIN URIA 2. hemolytic anemia	glycosuria
GLYCO SURIA 3. eating a 5-lb box of candy at one sitting	hematuria
ALBUMINURIA 4. pregnancy	hemoglobinuria
KETONURIA 5. starvation	ketonuria
PY URIA 6. urinary tract infection	pyuria
18. What are renal calculi, and what conditions favor their formation?	HEY ARE RIDNEY STONES.
COME FROM EXCESSIVELY CONCENTR.	HED URINE
19. What change would you expect to occur in a urine sample that has been	stored at room temperature? IT WILL
GROW BACTERIA + SMELL LIKE AM	MMONIA
UI V V V V V V V V V V V V V V V V V V V	

13. What substance is responsible for the normal yellow color of urine? UROCHROME