

Renal Physiology / Urinary System  
Chapter Study Guides (C23)  
Hot List Questions (2020-4-9)  
(All questions are in test bank)

1. What are the organs of the urinary system?
2. What term is often used to describe the kidney's position?
3. What is the structure and function of the urinary bladder?
4. What are the urinary system's functions?
5. What is the smallest functional unit of the kidney? Order of segments?
6. What are the four steps used by the kidney to make urine?
7. As blood enters the kidney, it is split into two fractions: blood and filtrate. What is the pathway taken by the filtrate? (list different tubular segments until it exits body)
8. As blood enters the kidney, it is split into two fractions: blood and filtrate. What is the pathway taken by the blood? (list different segments)
9. In renal physiology, what is the significance of reabsorption? Where does it occur? What type of molecules are being moved? From where to where? Why?
10. In renal physiology, what is the significance of secretion? Where does it occur? What is being moved? From where to where? Significance?
11. Where is most of the filtrate reabsorbed? Is this active or passive? Symport or antiport?
12. Where is glucose reabsorbed in the nephron? Significance of the glucose transport maximum? Why may glucose become an osmotic diuretic? Explain.
13. How much glucose is reabsorbed in a healthy person? What disease may be detected by tasting the urine?
14. What capillaries are associated with the convoluted tubules in the renal cortex? Significance?
15. What capillaries are associated with the Loop of Henle? Significance?
16. What is the term used to describe a reflex that empties the urinary bladder?
17. What is the significance of the glomerular filtration rate? Volume? How regulated?
18. Where along the nephron are these terms used? (filtrate, tubular fluid, urine)
19. What percent of the glomerular filtrate is reabsorbed?
20. How much urine is formed daily?
21. What is the function of aldosterone? Nickname? Produced by? Receptor location?
22. What mechanism releases aldosterone? How does this affect tonicity?
23. What mechanisms release antidiuretic hormone? Nickname? Produced by? Receptor location? How does this affect tonicity?
24. What disease is caused by a lack of ADH secretion?
25. What mechanism is responsible for keeping the medulla hypertonic? Significance?
26. What is countercurrent multiplication? Location?
27. What is countercurrent exchange? Location?