

Renal Physiology / Urinary System
Chapter Study Guides (C23)

1. What are the organs of the urinary system?
2. > What term describes the kidney's location?
3. What is the structure and function of the urinary bladder?
4. What functions are associated with the urinary system?
5. > What is the smallest functional unit of the kidney? What are different segments of this tubular structure?
6. > What four steps are used by the kidneys to make urine?
7. > As blood enters the kidney, it is split into two fractions: blood and filtrate. Where does filtration take place? What is the pathway taken by the filtrate? (list different tubular segments until it exit 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 re-absorption? 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? How may glucose become an osmotic diuretic? Explain.
13. > How much glucose is reabsorbed in a healthy person? What disease may be detected if the urine taste sweet?
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 regulation?
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 renin? Location? When is it released?
22. > What is angiotensinogen? Made by? Found where? Converted into by? Further converted to by what? Significance to CoVID-19 pandemic?
23. > What is the function of aldosterone? Nickname? Produced by? Receptor location?
24. > What mechanism releases aldosterone? How does this affect tonicity?
25. > What mechanisms release antidiuretic hormone? Nickname? Produced by? Receptors location? How does this affect tonicity?
26. What disease is caused by a lack of ADH secretion?
27. What mechanism is responsible for keeping the medulla hypertonic? Significance?
28. > What is counter current multiplication? Location?
29. > What is counter current exchange? Location?