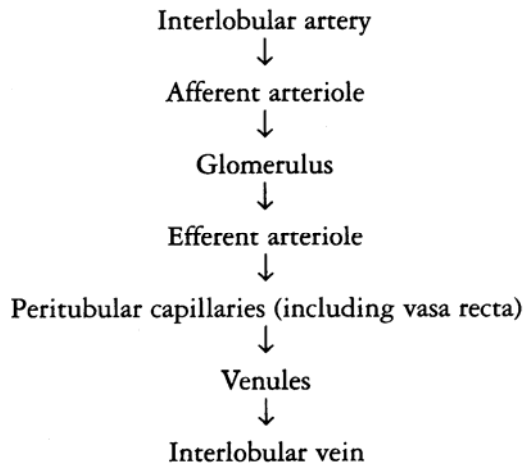


Self Assessment RSPT 2350: Module I – Renal System

1. What are the three functions of the kidneys to regulate the concentration of body fluids
 - A. **EXCRETION OF NONVOLATILE WASTE PRODUCTS (INCLUDING NONVOLATILE ACIDS)**
 - B. **REGULATION OF BLOOD VOLUME.**
 - C. **REGULATION OF VARIOUS ELECTROLYTES & BLOOD CONSTITUENTS**
2. Where is aldosterone secreted from: **CORTEX OF THE ADRENAL GLAND**
3. What does aldosterone do to regulate fluid balance: **ALDOSTERONE CAUSES INCREASED ABSORPTION OF NA WHICH INCREASES WATER RETENTION.**
4. Name the functional unit of the kidney. **GLOMERULUS**
5. Trace the flow of filtrate through the kidney starting at Bowman's Capsule.
 - A. **BOWMAN'S CAPSULE**
 - B. **RENAL TUBULE**
 - C. **PROXIMAL TUBULE**
 - D. **DESCENDING LOOP OF HENLE**
 - E. **LOOP OF HENLE**
 - F. **ASCENDING LOOP OF HENLE**
 - G. **DISTAL TUBULE**
 - H. **COLLECTING DUCTS**
 - I. **URETERS**
 - J. **BLADDER**
 - K. **URETHRA**
6. The % of cardiac output that perfuses the kidney is referred to as the renal fraction. What is the normal renal fraction? **21%**
7. How many mL of the glomerular blood flow is filtered out each minute?(This is called the glomerular filtration rate) **120 mL/min**
8. How much of this initial glomerular filtration rate remains to become urine?
1 mL/min
9. The glomerular blood flow is a
 - A. High pressure system
 - B. **Low pressure system**

10. Trace the blood flow through the kidney



11. Name the three categories of renal failure

- A. **PRE-RENAL FAILURE**
- B. **POST-RENAL FAILURE**
- C. **INTRA-RENAL FAILURE**

12. A mean blood pressure less than **60** mm Hg can cause severe ischemia to the kidney.

13. Name two functions of Angiotensin II

- A. **STIMULATES THE SECRETION OF ALDOSTERONE**
- B. **CAUSES VASOCONSTRICTION**

14. Drugs used to prevent the formation of Angiotensin II are called **ACE (ANGIOTENSIN CONVERTING ENZYME) INHIBITORS**.

15. The urine pH can be

- A. Acid
- B. Alkaline
- C. **Either acid or alkaline**

16. Name three constituents in the blood that should not be normally filtered at the glomerulus.

- A. **GLUCOSE**
- B. **ALBUMIN**
- C. **BLOOD CELLS**

17. The glomerulus is found in the
A. Renal Cortex
B. Renal Medulla
18. Name the three important buffer systems in the kidney.
A. BICARBONATE-CARBONIC ACID
B. PHOSPHATE
C. SULFATE
19. Diuretics prevent the reabsorption of
A. NaCl
B. NaHCO₃
C. Both A & B
20. Which of the following is a loop diuretic?
A. Diamox
B. Osmitol
C. Diuril
D. Aldactone
E. Lasix
21. Acetazolamide (Diamox) is used to treat
A. Respiratory acidosis
B. Respiratory alkalosis
C. Metabolic acidosis
D. Metabolic alkalosis
22. An example of a potassium sparing diuretic is: (more than one answer)
A. Aldactone
B. Amiloride
C. Lasix
D. Osmitol
E. Bumex
23. An acidosis (↓ pH) results in
A. Hyperkalemia
B. Hypokalemia
C. No change in K⁺ levels
24. Why is anemia one of the cardinal signs of renal failure? **KIDNEYS CAN NO LONGER PRODUCE ERYTHROPOIETIN.**

25. Define
- A. Anuria: **NO URINE OUTPUT**
 - B. Oliguria: **DECREASED URINE OUTPUT**
 - C. Polyuria: **EXCESSIVE PASSAGE OF URINE**
26. What is glomerular nephritis? **INFLAMMATION OF THE CAPILLARY LOOPS IN THE GLOMERULI OF THE KIDNEY OFTEN SECONDARY TO HEMOLYTIC STREPTOCOCCAL INFECTION.**