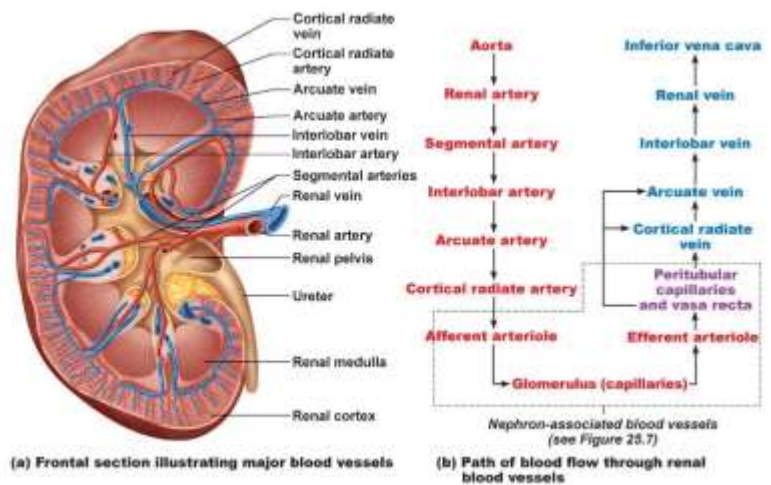


# Urinary System

EQ: How does your body get rid of waste that has been taken in to your body?

- I. Functions of the Urinary System
  - a. Elimination of waste products
    - i. Nitrogenous wastes
    - ii. Toxins
    - iii. Drugs
  - b. Regulate aspects of homeostasis
    - i. Water balance
    - ii. Electrolytes
    - iii. pH balance
    - iv. Blood pressure
    - v. RBC production
    - vi. Activation of vit.D
- II. Basic Gross Anatomy
  - a. Two ureters
  - b. Urinary bladder
  - c. Urethra
  - d. Two kidneys
    - i. External Anatomy of the Kidneys
      1. Within the muscular wall of the back between T12-L3.
      2. Connective tissue layers:
        - a. Renal capsule
        - b. Adipose capsule
        - c. Renal fascia
    - ii. Internal Anatomy of the Kidneys
      1. Renal Cortex
      2. Renal Medulla
        - a. Renal pyramids
        - b. Renal papillae
        - c. Renal columns
      3. Renal Pelvis
        - a. With major calyces and minor calyces
    - iii. Blood Supply of the Kidney



iv. Nephron Anatomy

1. **Renal Corpuscle**

- a. Glomerulus
- b. Bowman's capsule

2. **Renal Tubules**

- a. Proximal convoluted tubule (PCT)
- b. Loop of Henle
- c. Distal convoluted tubule (DCT)

3. Glomerulus

- a. A specialized capillary bed
- b. Attached to arterioles on both sides (maintains high pressure)
  - i. Large afferent arteriole
  - ii. Narrow efferent arteriole
- c. The glomerulus sits within a glomerular capsule (the first part of the renal tubule)

4. Renal Tubules

