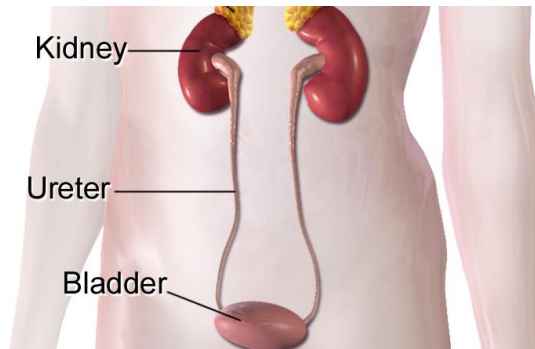


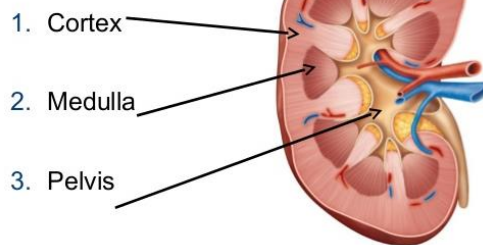
Urinary System

- Main function: eliminate excess substances while keeping those needed by our body
- Main organs

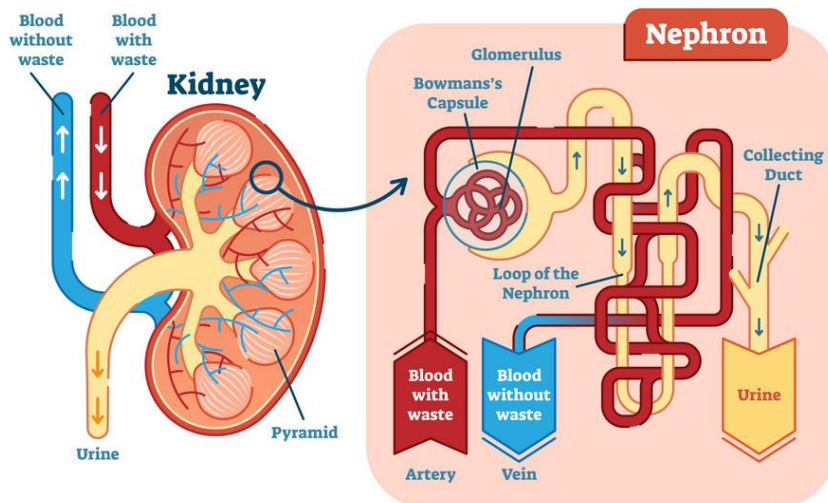


- Kidneys
 - Consists of 3 layers: renal cortex (outermost), renal medulla (middle), and renal pelvis (innermost)

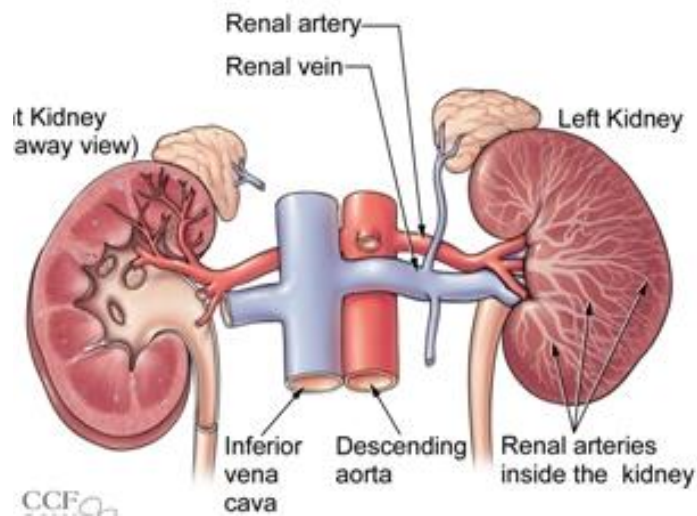
- Three regions



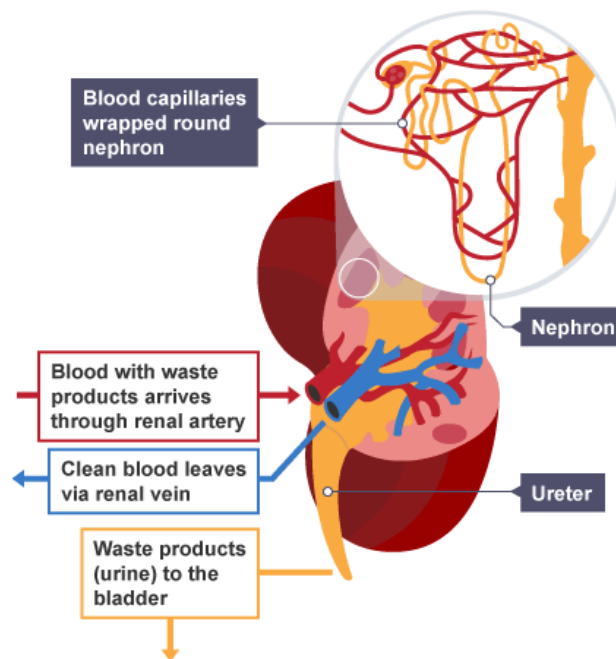
- Neurons
 - Individual filters of kidneys that make up the renal cortex
 - Contains groups of capillaries -glomerulus -which is surrounded by Bowman's capsule



- Renal arteries
 - Supply blood to kidneys
 - Branch off the aorta



- **Function**
 - Filters blood
 - Reabsorbs materials needed
 - Secretes wastes and excess water in urine
 - Urinary ducts
 - Bladder
 - **Filtration process (in kidneys)**
 - Renal artery → arterioles → glomerulus → glomerular filtrate (filtering) → (waste goes to) renal medulla → renal pelvis → ureters → urinary bladder → urethra



- Proximal convoluted tubule vs distal convoluted tubule
 - Proximal: where water, glucose, ions, and other organic molecules are reabsorbed into blood
 - Distal: removes substances we don't need (like urea and drugs) from the blood and adjusts blood pH by secreting hydrogen ions