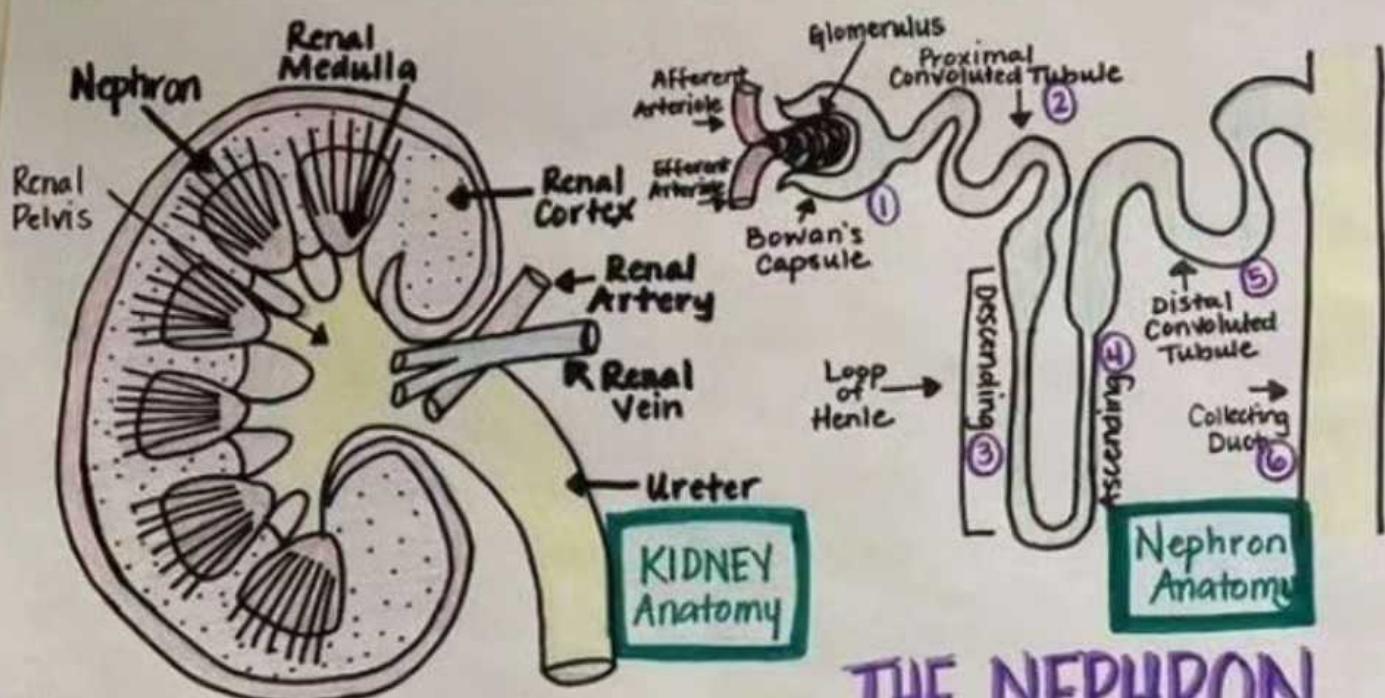


THE KIDNEY



- Kidney surrounded by tough capsule
- Renal Pelvis** is where urine meets to flow down to the ureter. *Hydronephrosis seen here*
- Kidney has two main functions
 - removal of waste
 - osmoregulation

Kidney Function (mnemonic) *a wet bed*

- A acid base balance
- W water removal
- E erythropoiesis
- T toxin removal
- B blood pressure control
- E electrolyte balance
- D vitamin-D activation

THE NEPHRON

- The functional unit of the Kidney
- Filters out RBCs, only Plasma enters Nephron
 - Start to filter plasma
 - reabsorb sugar + water + $\frac{2}{3}$ of all filtered salt
 - reabsorb water \approx aquaporins
 - reabsorb salt *(allow water to pass from filtrate to interstitial fluid)*
 - finish plasma filtration
 - reabsorb water + nutrients
 - ADH works here*
 - disposal + reabsorb water
 - wine excretion