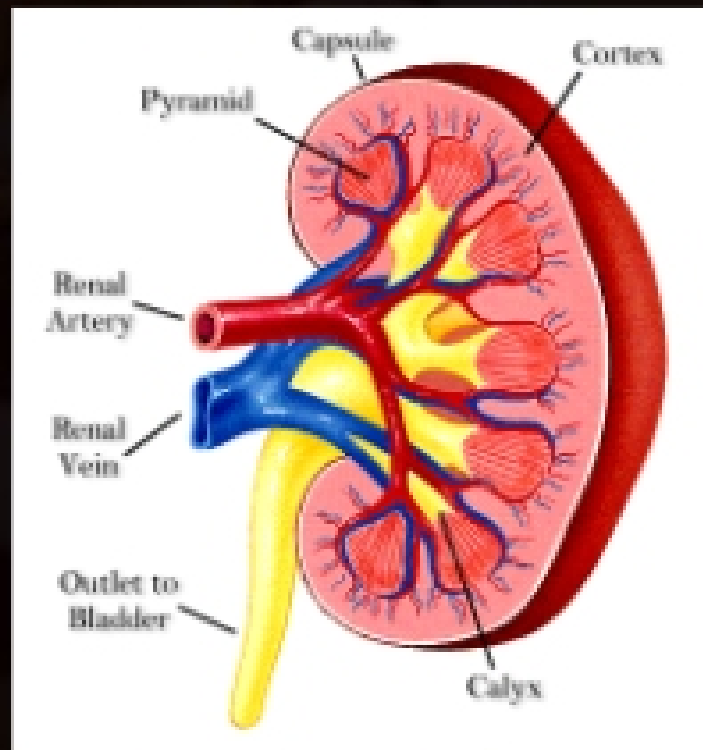


Renal Pharmacology



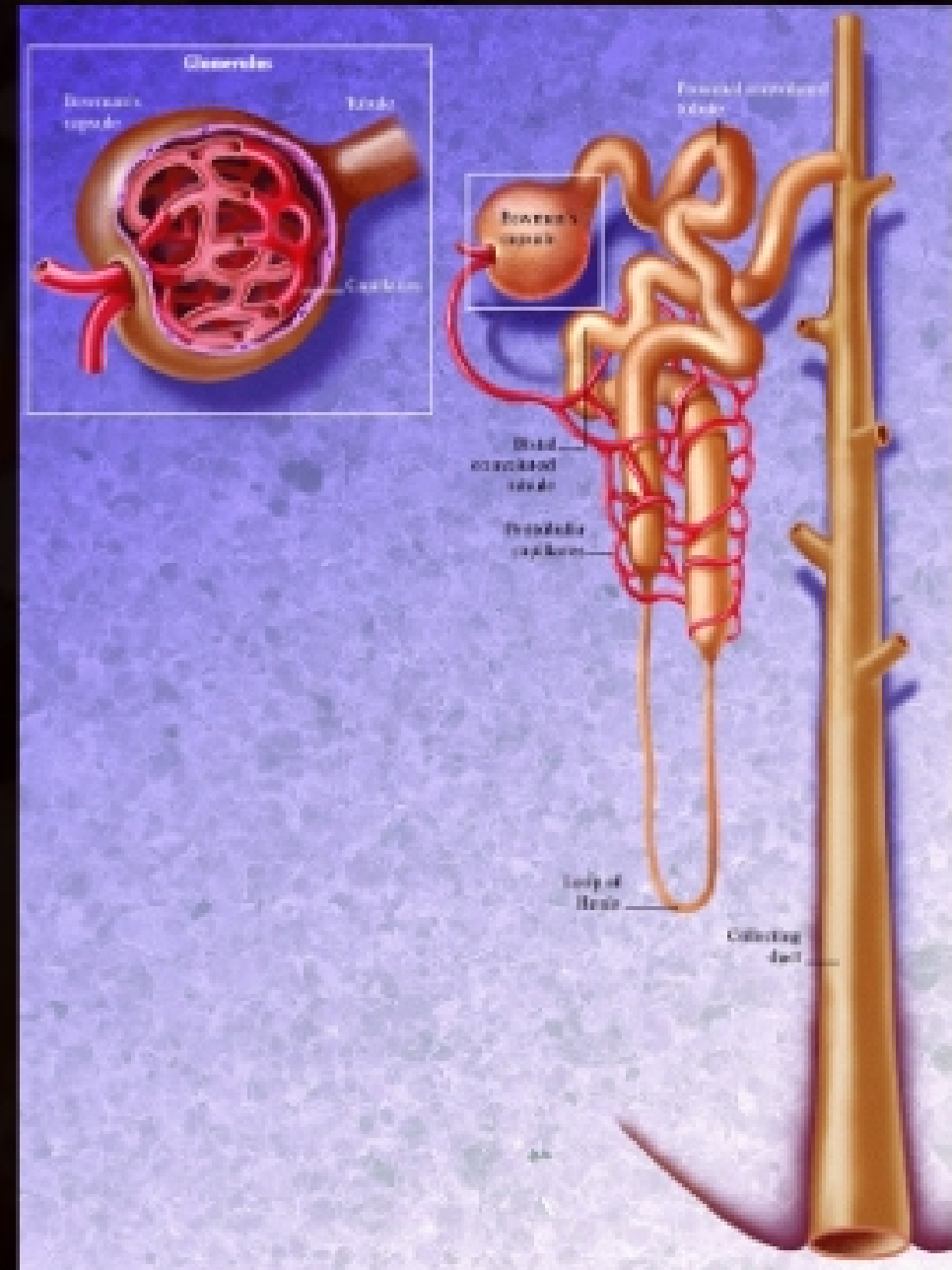
Diuretics:

- Carbonic Anhydrase Inhibitors
- Thiazides
- Loop Diuretics
- Potassium-sparing Diuretics

Renal Pharmacology

Kidneys:

- Represent 0.5% of total body weight, but receive ~25% of the total arterial blood pumped by the heart
- Each contains from one to two million nephrons:
 - The **glomerulus**
 - The **proximal convoluted tubule**
 - The **loop of Henle**
 - The **distal convoluted tubule**



Renal Pharmacology

Functions

- **Clean** extracellular fluid and maintain ECF volume and composition
- **Acid-base balance**
- **Excretion** of wastes and toxic substances

- **Renal processes**
- **Filtration** - glomerulus
- **Reabsorption**
- **Tubular secretion**

In 24 hours the kidneys reclaim:

- ~ 1,300 g of NaCl
- ~ 400 g NaHCO₃
- ~ 180 g glucose
- almost all of the 180 L of water that entered the tubules