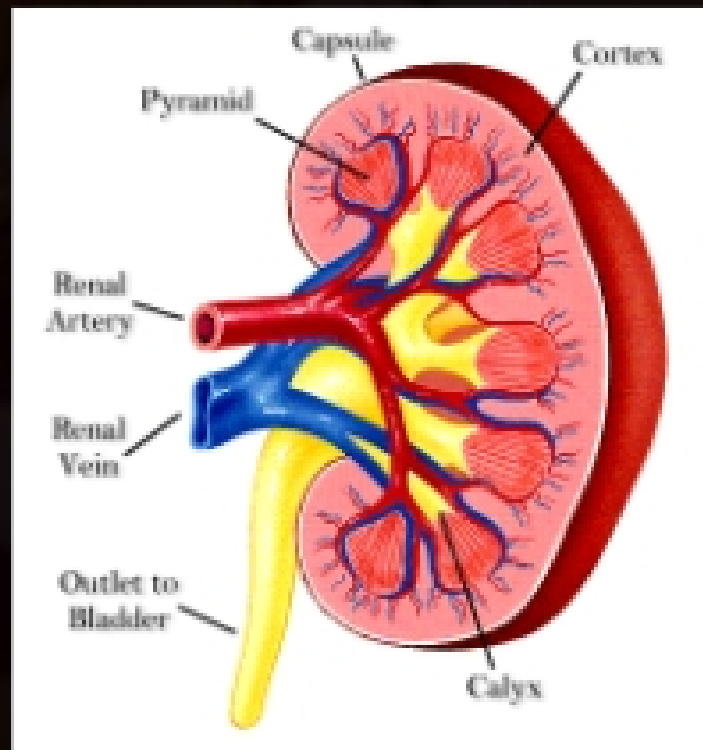


# Renal Pharmacology



## Diuretics:

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

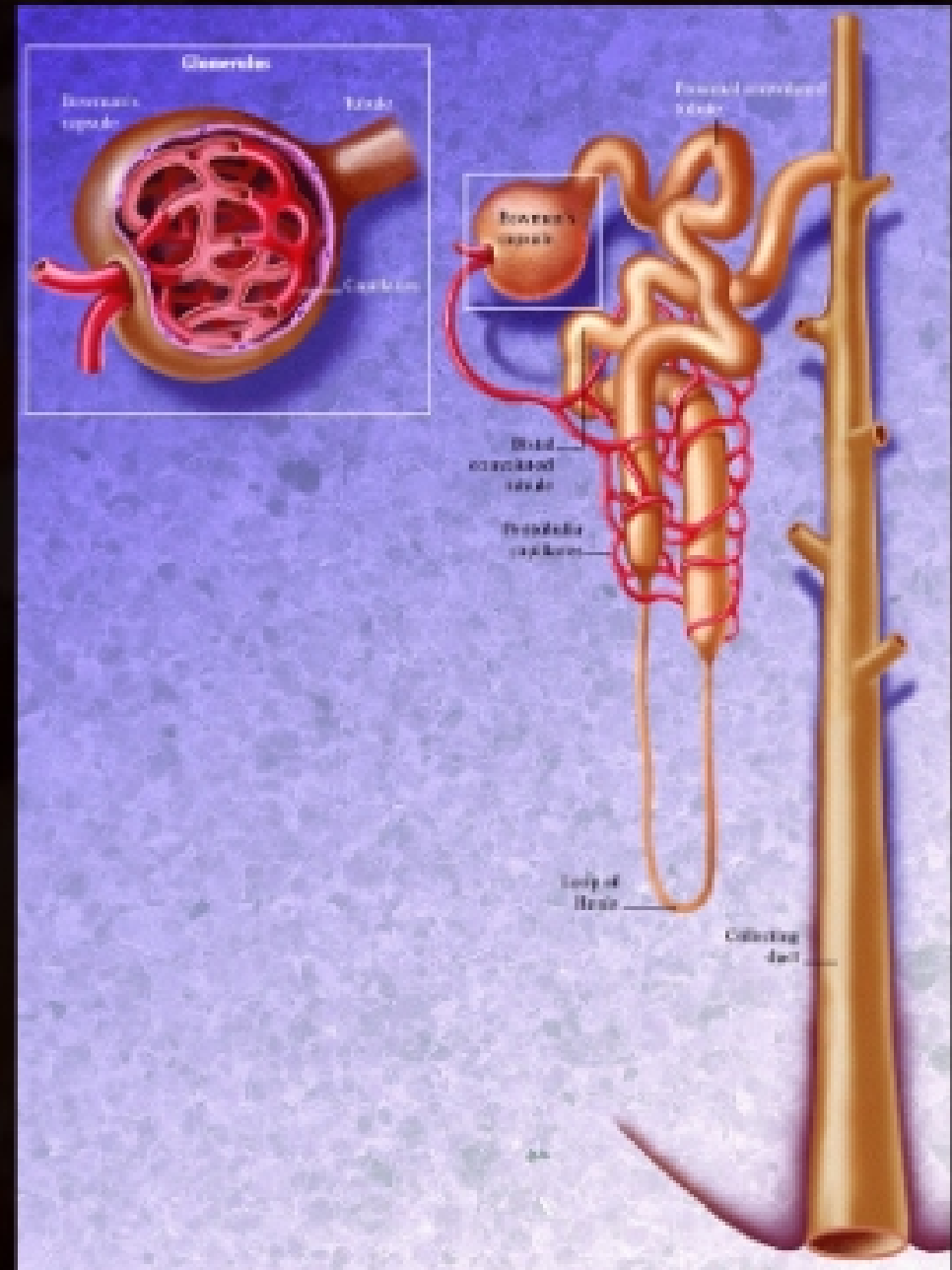
# Renal Pharmacology

## 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 NaHCO<sub>3</sub>
- ~ 180 g glucose
- almost all of the 180 L of water that entered the tubules