

# MODULE 10 L03

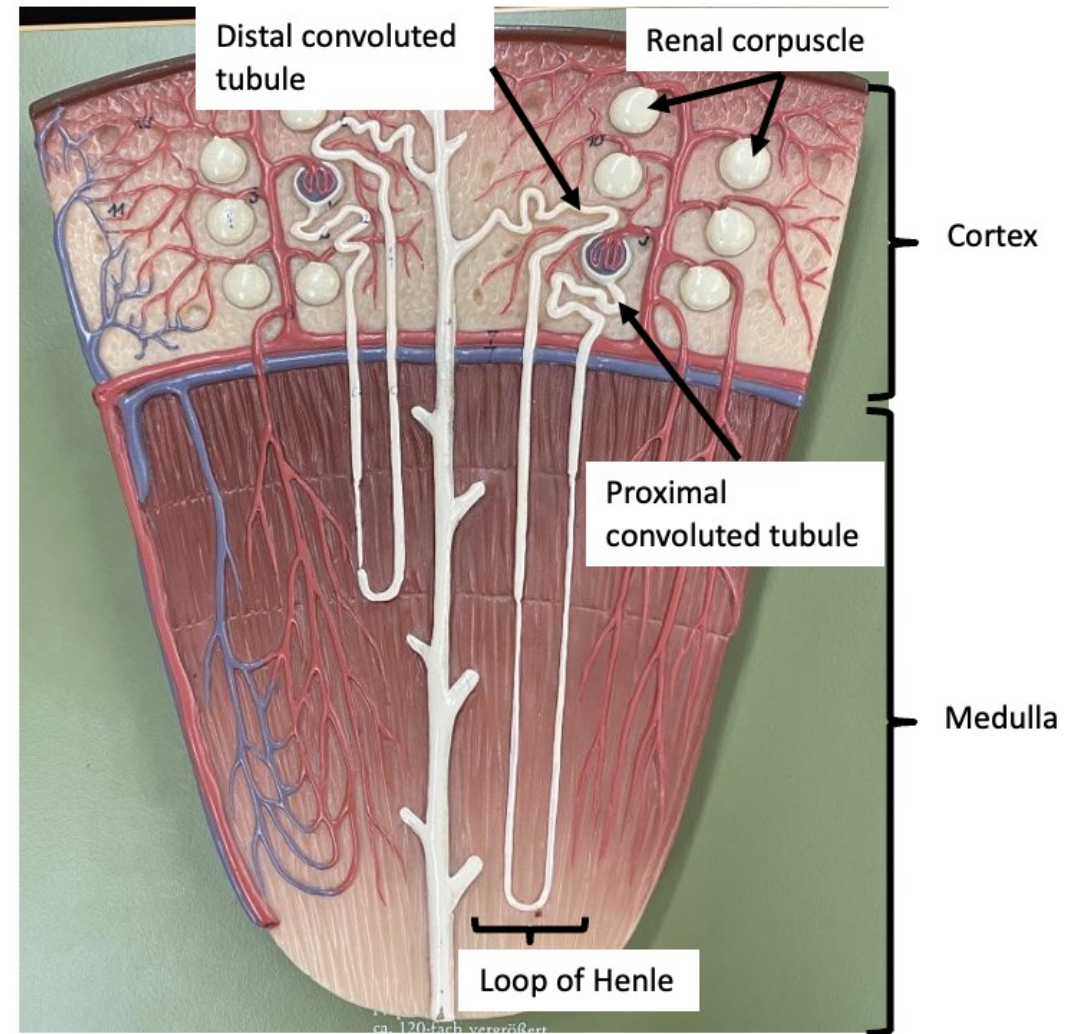
## Renal Corpuscle to Proximal Convolutated Tubule

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# Nephron

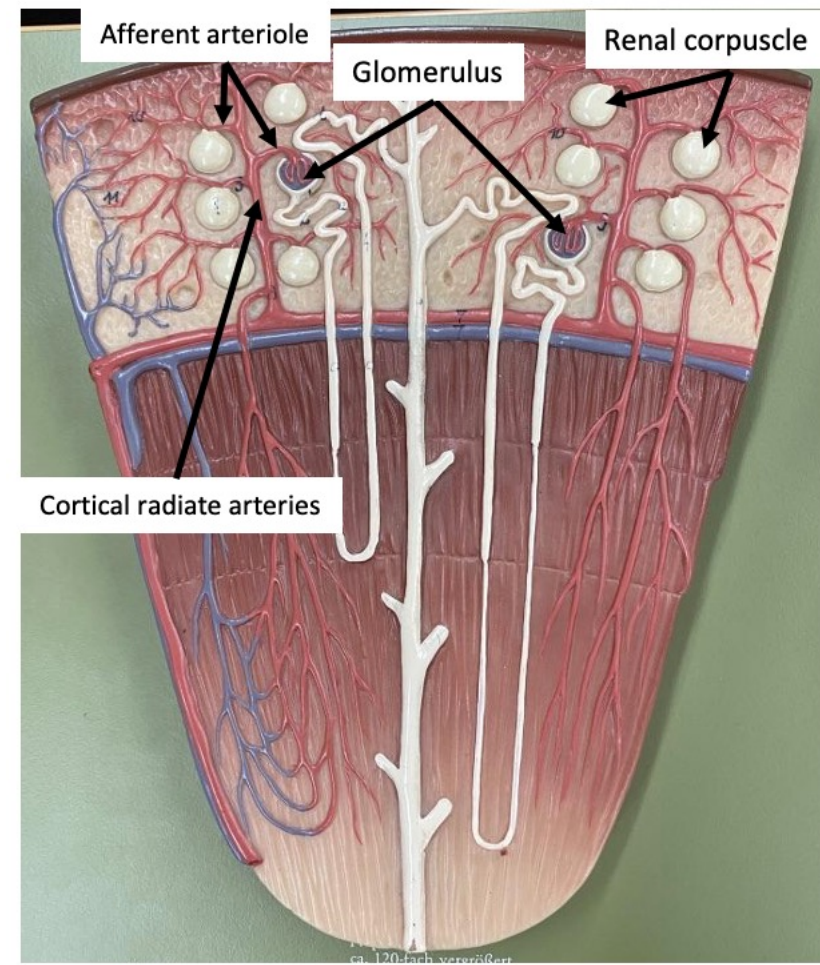
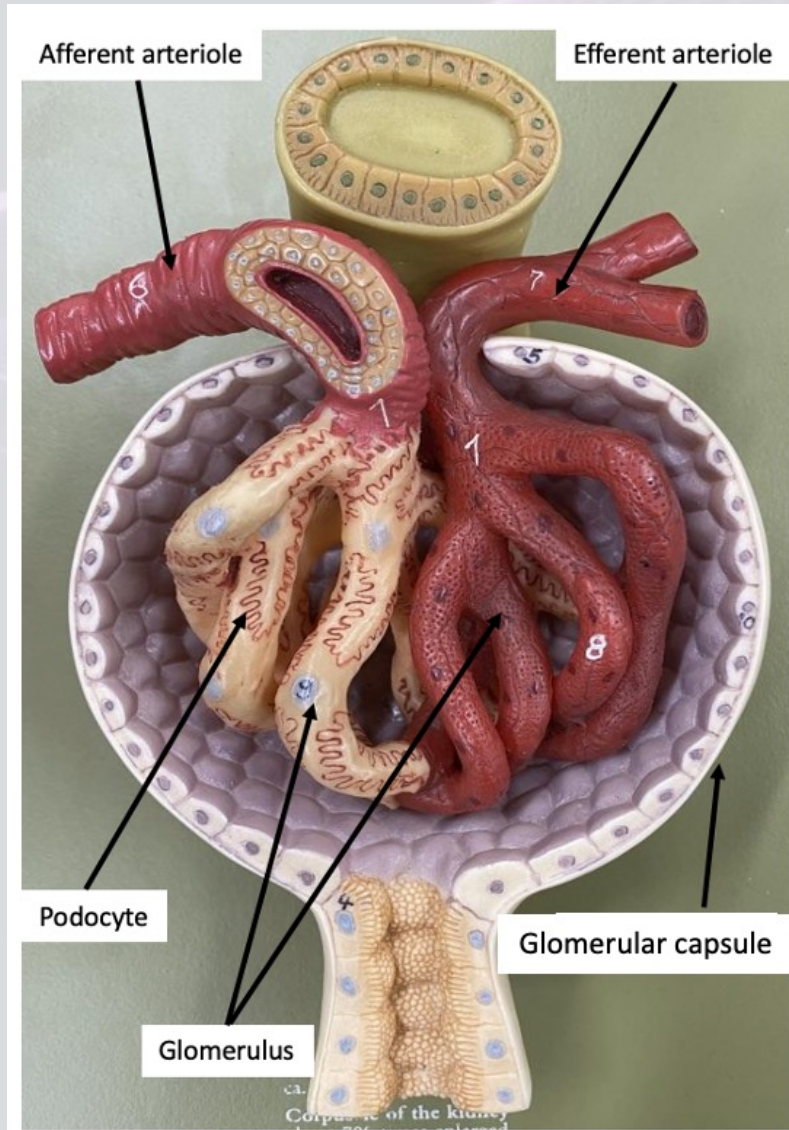
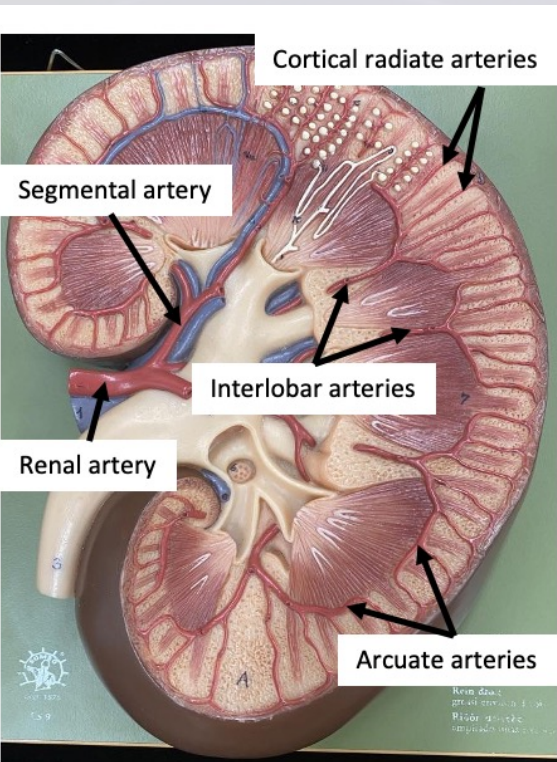
- Functional unit of the kidney
- Starts: renal corpuscle
- Ends: distal convoluted tubule





# Renal Corpuscle

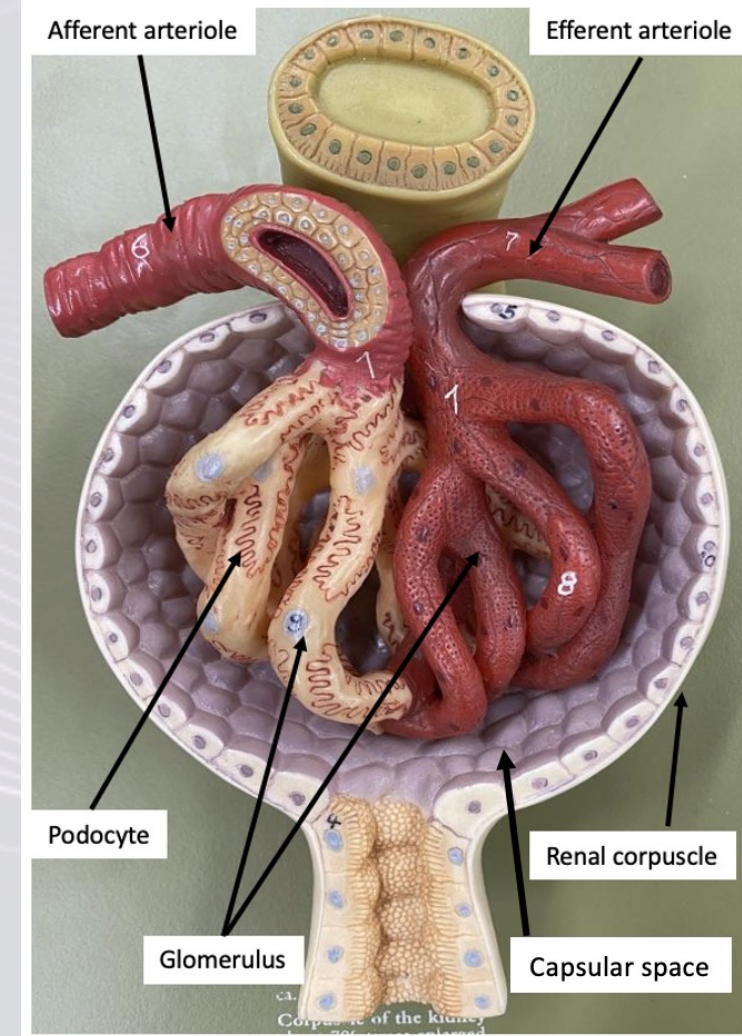
- Components:
  - ❖ Glomerular capsule
    - Bowman's capsule
  - ❖ Glomerulus
    - Podocytes





# Glomerulus

- Podocytes
  - ❖ Specialized endothelial cells
    - Fenestrated capillaries
- Glomerular filtrate = plasma
  - ❖ RBCs-free
  - ❖ Platelet-free
  - ❖ Protein-free
  - ❖ Metabolic waste
  - ❖ Organic compounds  $\Rightarrow$  PCT



# Proximal Convoluted Tubule

- First part of renal tubule
- Lined by simple cuboidal epithelium with microvilli on apical surface
  - ❖ ↑ surface area for reabsorption
- Primary function
  - ❖ Reabsorption
    - Organic nutrients
    - Ions
    - Plasma proteins

