

MICROSCOPIC NEPHRON STRUCTURE

[Illustration: Renal Corpuscle, PCT, Loop of Henle, DCT, and Collecting Duct]

COMPONENT	PRIMARY FUNCTION
Glomerulus	High-pressure capillary network where blood filtration begins.
Bowman's Capsule	Cup-shaped structure that collects filtrate from the glomerulus.
Proximal Convoluted Tubule	Reabsorption of water, ions, and all organic nutrients (glucose, amino acids).
Loop of Henle	Creates concentration gradient in medulla; reabsorbs water and NaCl.
Distal Convoluted Tubule	Selective secretion of ions and acids; regulated reabsorption of water and sodium.
Collecting Duct	Final concentration of urine and delivery to the renal pelvis.