

	Na <sup>+</sup>	H <sub>2</sub> O	Cl <sup>-</sup>	K <sup>+</sup>	Urea	H <sup>+</sup>	HCO <sub>3</sub>	Ca <sup>2+</sup>	PO <sub>4</sub>
Proximal tubule	65% Active reabsorption	65% Passive with Na <sup>+</sup>	65%	55% Paracellular passive diffusion ∴ 2° to Na <sup>+</sup> & H <sub>2</sub> O created gradient	50% (Passive 2° to Na and H <sub>2</sub> O reabs.)	<u>Secreted</u> (luminal) -1° H <sup>+</sup> ATPase -2° Na <sup>+</sup> /H <sup>+</sup> countertr.	80% Reabsorbed -Basolateral Na/HCO <sub>3</sub> Co-transport -Most (C.A. present in proximal lumen)	60% Passive paracellular [ ] -gradient	75% Proximal (2° active to Na <sup>+</sup> ) Inhibited by P.T.H
Thin descending Loop Henle	-	10%	-	-	-	-	-		
Thick Ascending Loop Henle	25% Active 1/2 Na, K, 2Cl pump) 1/2 = paracellular diffusion	-	25%	30% -Na, K, 2Cl pumps -Paracellular 2° to lumen ∴ 2° to 1° Na <sup>+</sup> reabsorption]	-	<u>Secreted</u> -1° H <sup>+</sup> ATPase -2° Na <sup>+</sup> /H <sup>+</sup> counter	Reabsorbed 10-15%	Passive Paracellular lumen ⊕	
Distal convoluted	5% reabsorption	-	5%	<u>Secreted</u> Principle cells = Aldosterone With ↑K <sup>+</sup> diet Also <u>alkalosis</u>	-	<u>Secreted</u> -1° H <sup>+</sup> ATPase -2° H <sup>+</sup> /K <sup>+</sup> ATPase (type A intercalated (∴ K <sup>+</sup> reabsorption))	Reabsorbed	Rest = Active transcellular -1° Ca ATPase -2° Ca/Na counter on basolateral membrane p192 ↑ by PTH & D <sub>3</sub>	
Cortical collecting Duct	4-5% Aldosterone on Principle cells. ADH synergis	12-24% depending on ADH on Principle cells	4-5%	Reabsorbed Type A intercalated -↓K <sup>+</sup> diet -H <sup>+</sup> secretion	-		Reabsorption Basolateral Cl <sup>-</sup> /HCO <sub>3</sub> countertransp. Type A Intercalated cells = all remaining Filtered and secreted Secretion: Type B Intercalated cells (inhibited by low Cl <sup>-</sup> )		
Outer Medullary C.D				Reabsorbed	-				
Inner Medullary C.D				Reabsorbed	Up to 10% with ↑ ADH (aquaporin 3)				
Daily Solute Load ~ 700	100-150 mmol/d <1% excreted	0.5-23,3L/d	150 mmol/d	40-100 mmol/d	≈400 mmol/d				