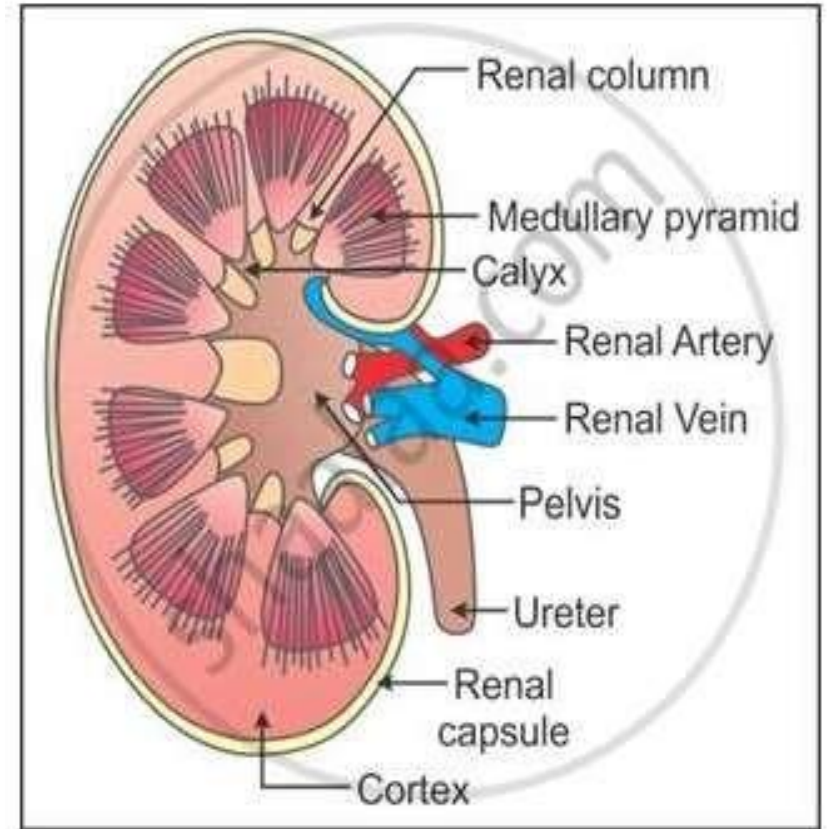


- The renal pelvis receives **two or three major calyces**, each of which divides into two or three **minor calices**. Each minor calyx is indented by a renal papilla, the apex of the renal pyramid, from which the urine is excreted.
- Renal pelvis continues as an **ureter**



Transport Mechanisms Across the Tubule

Preview from Notesale.co.uk
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Active Transport

- Requires energy
- Moves substances against their electrochemical gradient.

Primary active

Directly coupled to energy source.

e.g. $\text{Na}^+ - \text{K}^+$ ATPase.
 $\text{Na}^+ - \text{H}^+$ ATPase.

Secondary active

Indirectly coupled to energy source.

Carrier protein.
e.g. Glucose & amino acid.

Passive Transport

- Does not need energy.
- Moves substances down their electrochemical gradient.

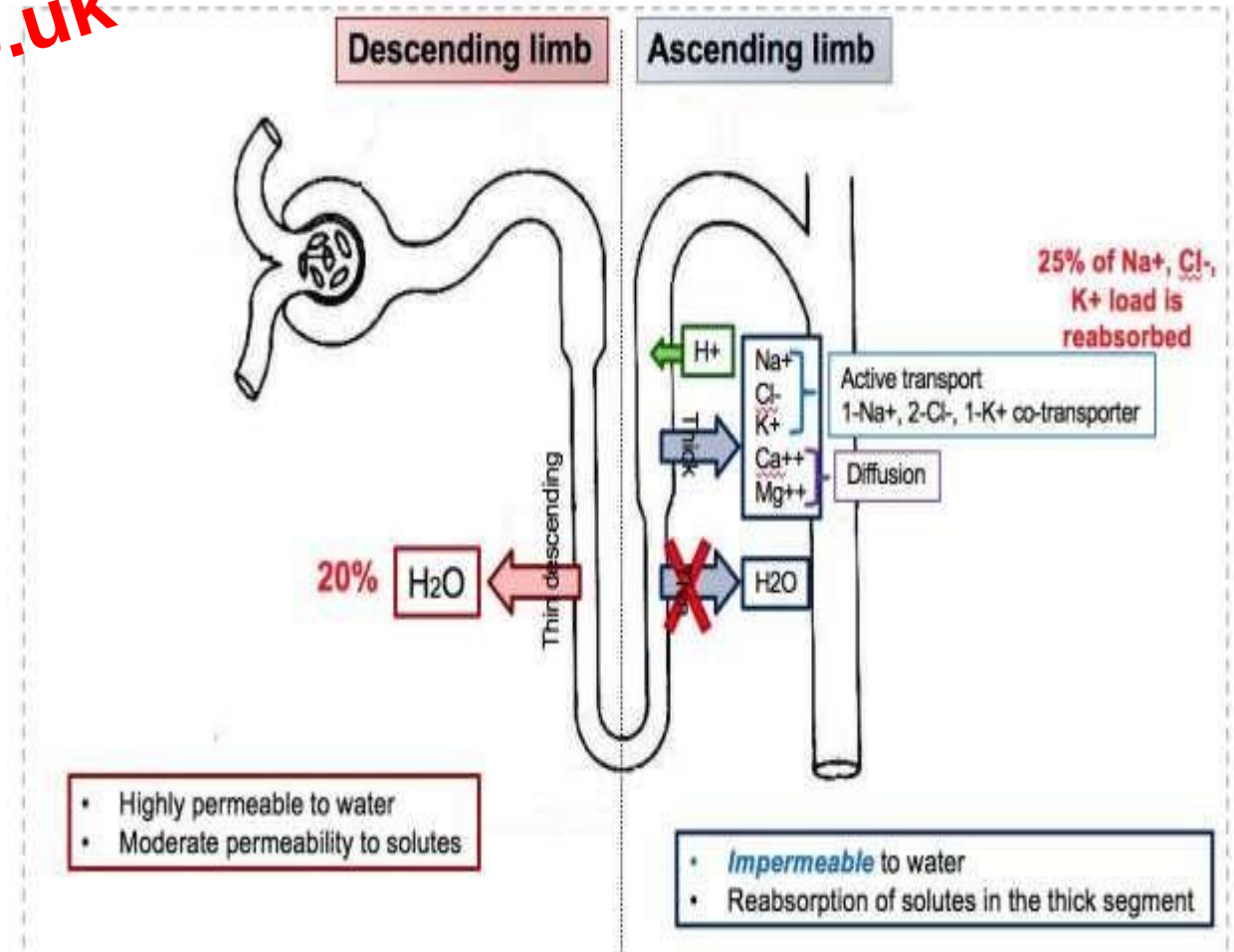
Passive diffusion

Osmosis

Water
Solute like
Cl-Urea

Tubular reabsorption

- Loop of Henle
 - Thin limb – simple squamous
 - 25% of filtered NaCl and K⁺ is reabsorbed as well as Ca²⁺, HCO₃⁻ in thick ascending limb
 - The ascending limb is **impermeable to water** (diluting segment).
 - 15% water absorbed in thin descending limb (**permeable to water**). The descending thin limb does not reabsorb NaCl.



- Ammonotelic : aquatic
- Uricotelic : insects, aves, reptiles
- Ureotelic : human, earthworm