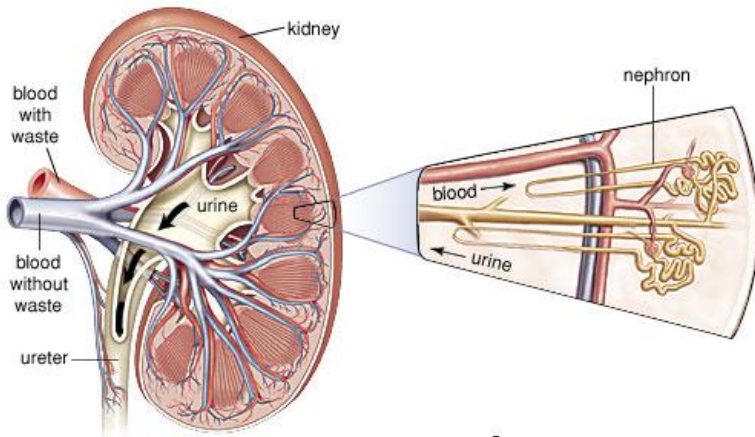


URINE FORMATION



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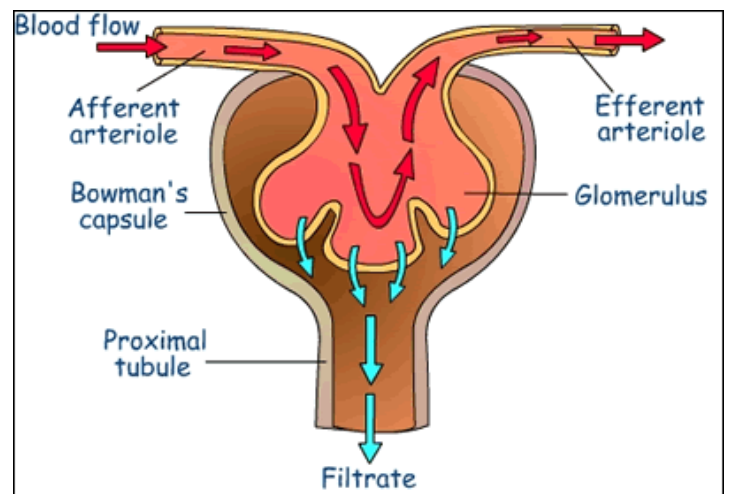
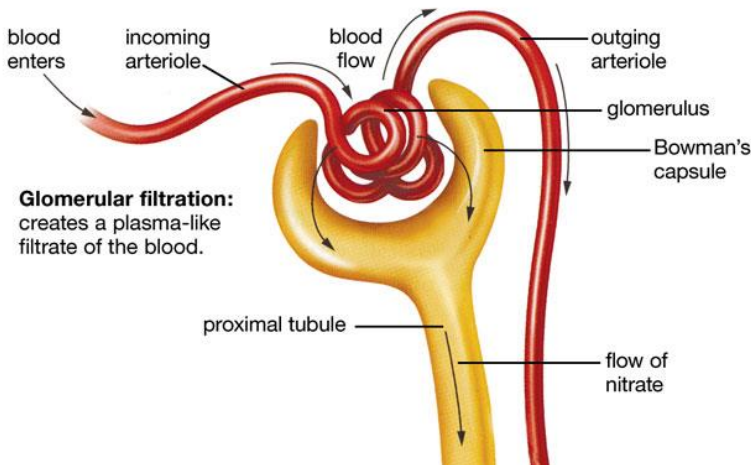
Nephrons remove _____

_____.

STEP ONE: _____

Certain fluids (filtrate), such as _____,
pass from the _____ into the

- _____ pushes the fluid out of the glomerular capillaries
- This fluid is the _____ (contains small molecules such as water, salts, glucose and urea). Large molecules such as glycogen and protein, remain in the blood.
- Filtrate then enters the _____

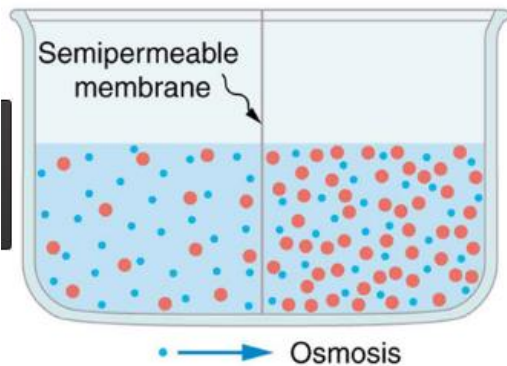


STEP TWO: _____

From the Bowman's capsule the filtrate enters the _____

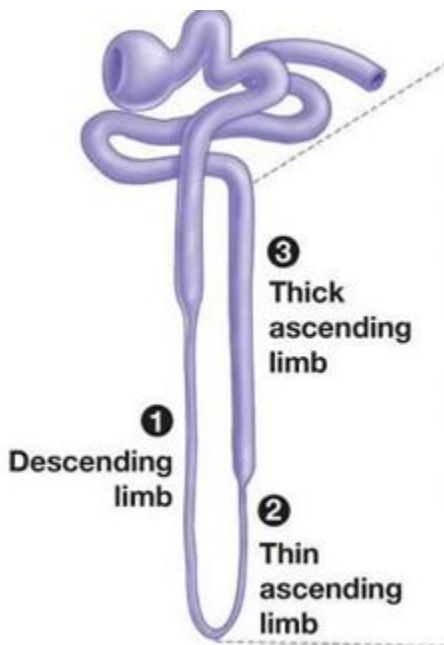
- As the filtrate flows through the tubules of the nephrons, certain substances, including _____, move from the filtrate back into the _____

- This movement occurs by both active and passive transport



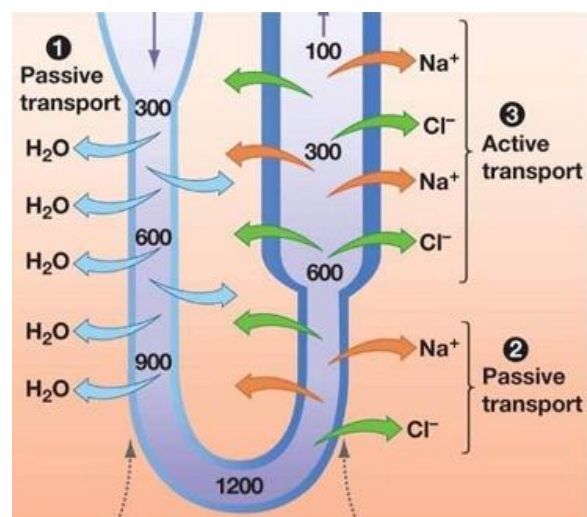
- Proximal tubule is _____ to water
- Because of the difference in concentration between the blood and filtrate, **water moves out by _____** after the ions and nutrients have been reabsorbed

Salts and nutrients are pumped out and reabsorbed by active transport into the blood through the _____



Descending limb is _____

Ascending limb is nearly impermeable to _____, but highly permeable to _____



STEP THREE: _____

The filtrate then travels to the _____

Water is reabsorbed and substances like penicillin, hydrogen ions and ammonia are secreted into the distal tubule (urine) from the _____
_____ (blood).

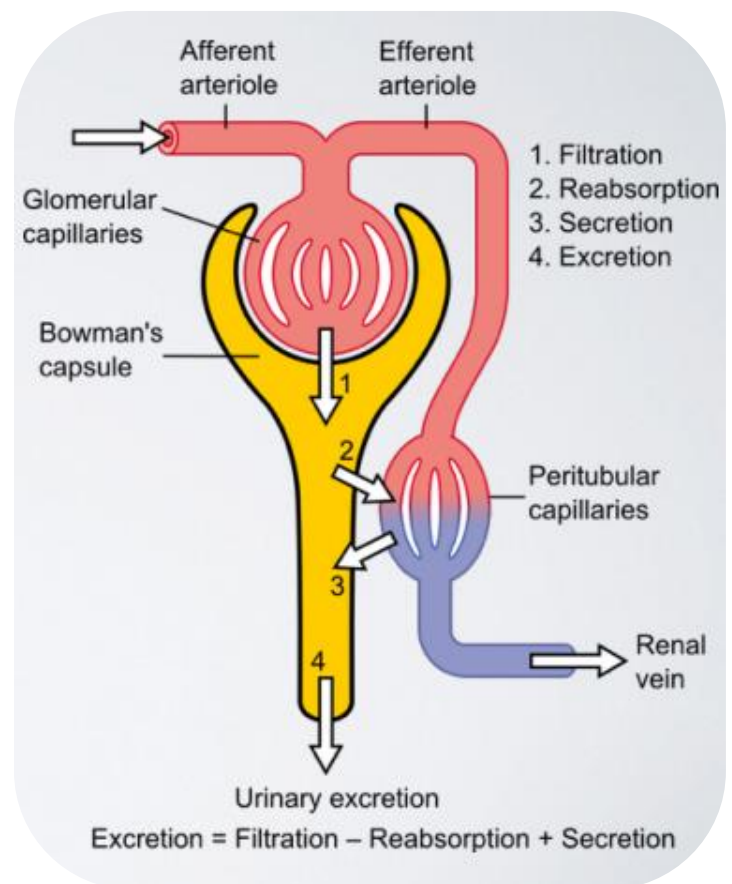
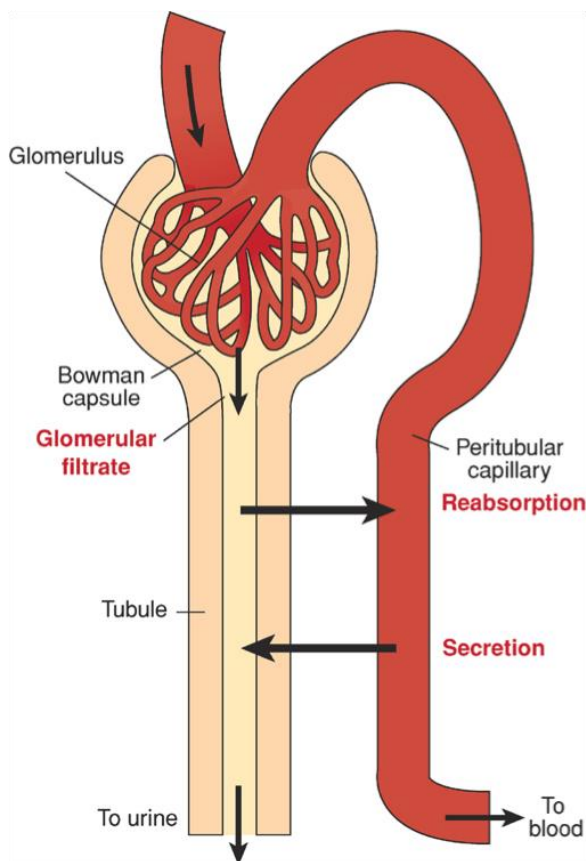
Cells lining the distal tubule are loaded with _____

Secretion occurs by **active transport** (like reabsorption) and molecules are transferred from the **blood into the nephron** (unlike reabsorption)

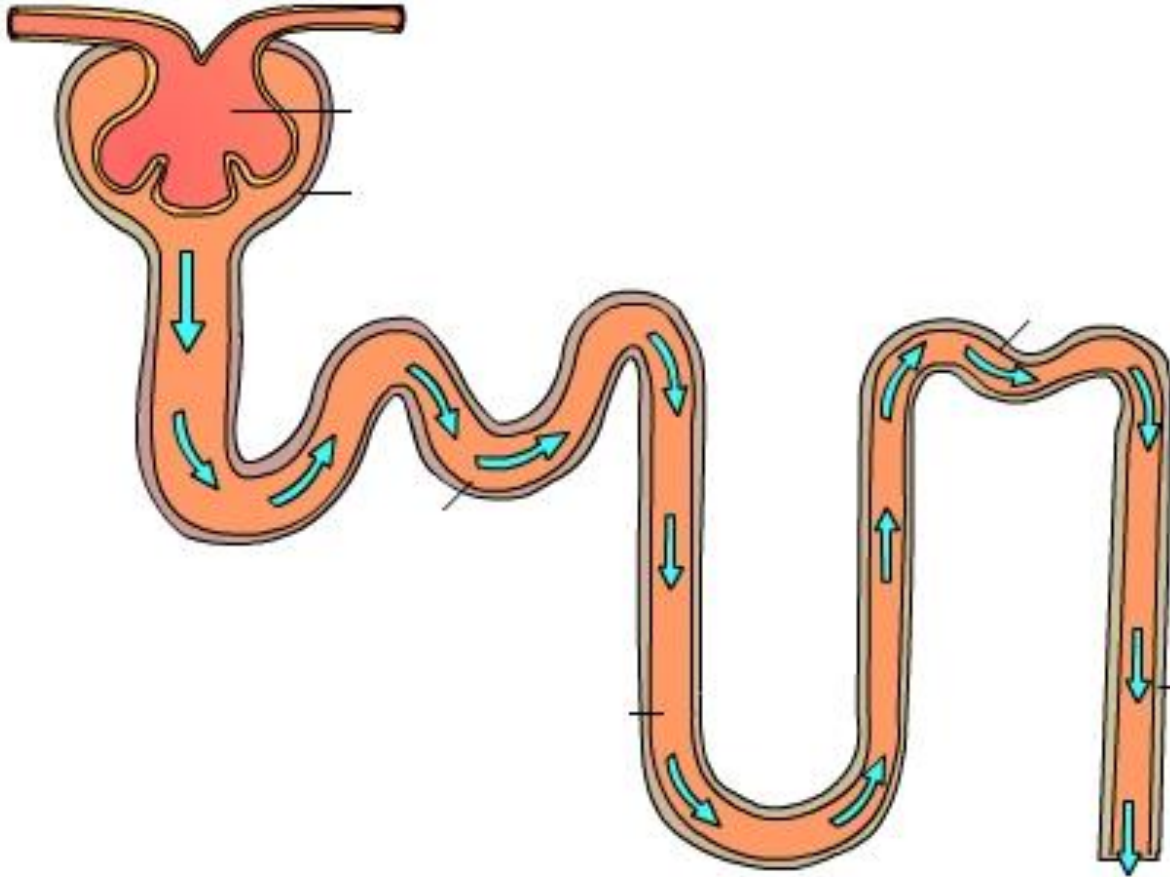
The filtrate then travels to the _____ and more water is absorbed. It is then collected in the _____ of the kidney and sent to the _____ via the _____

- The substances that remain in the filtrate are _____

- Collectively, these wastes make up _____



On the following diagram, note where components of the blood are reabsorbed and secreted.



MORE NOTES FROM THE VIDEO: