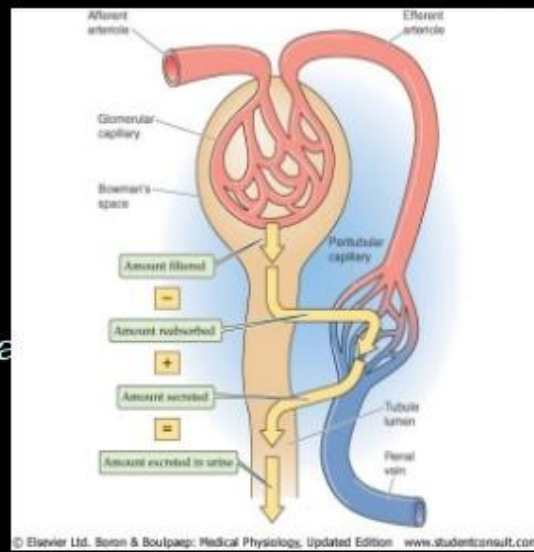


INTRODUCTION

- Process concerned with urine formation
- Glomerular filtration..
- Tubular reabsorption..
- Tubular secretion..

- GFR is very high: ~180L/day

- **IMP**:-It is the ECF that is being regulated, NOT the urine.

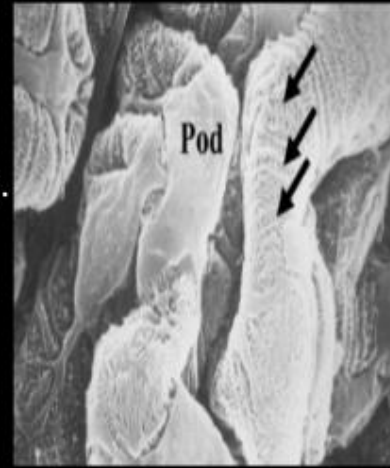


CHARACTERISTICS OF FILTRATION MEMBRANE

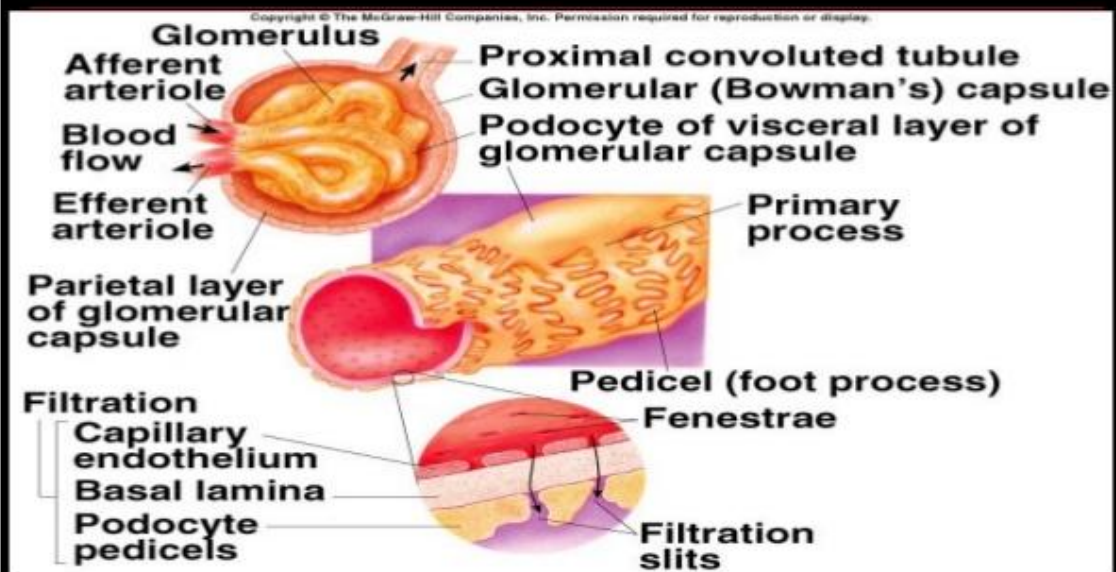
SITE OF FILTRATION

■ **Glomerulus**

- The site of filtration
- Mechanism is sieve-like
- Layers:-
 - 1 foot processes of podocytes.
 - 2 Lamina rara externa or outer cement layer.
 - 3 Lamina densa.
 - 4 Lamina rara interna or inner cement layer.
 - 5 Endothelial cell layer.



GLOMERULAR FILTRATION MEMBRANE



COMPOSITION OF GLOMERULAR FILTRATE **(GLOMERULAR ULTRA FILTRATE)**

- **Ultra filtration.**– Filtration under pressure.
- Composition – same like that of plasma except for proteins & cells.
- **Glomerular filtration:**
 - Mechanism of producing ultra filtrate under hydrostatic pressure of the blood.
 - Process similar to the formation of tissue fluid by other capillary beds.