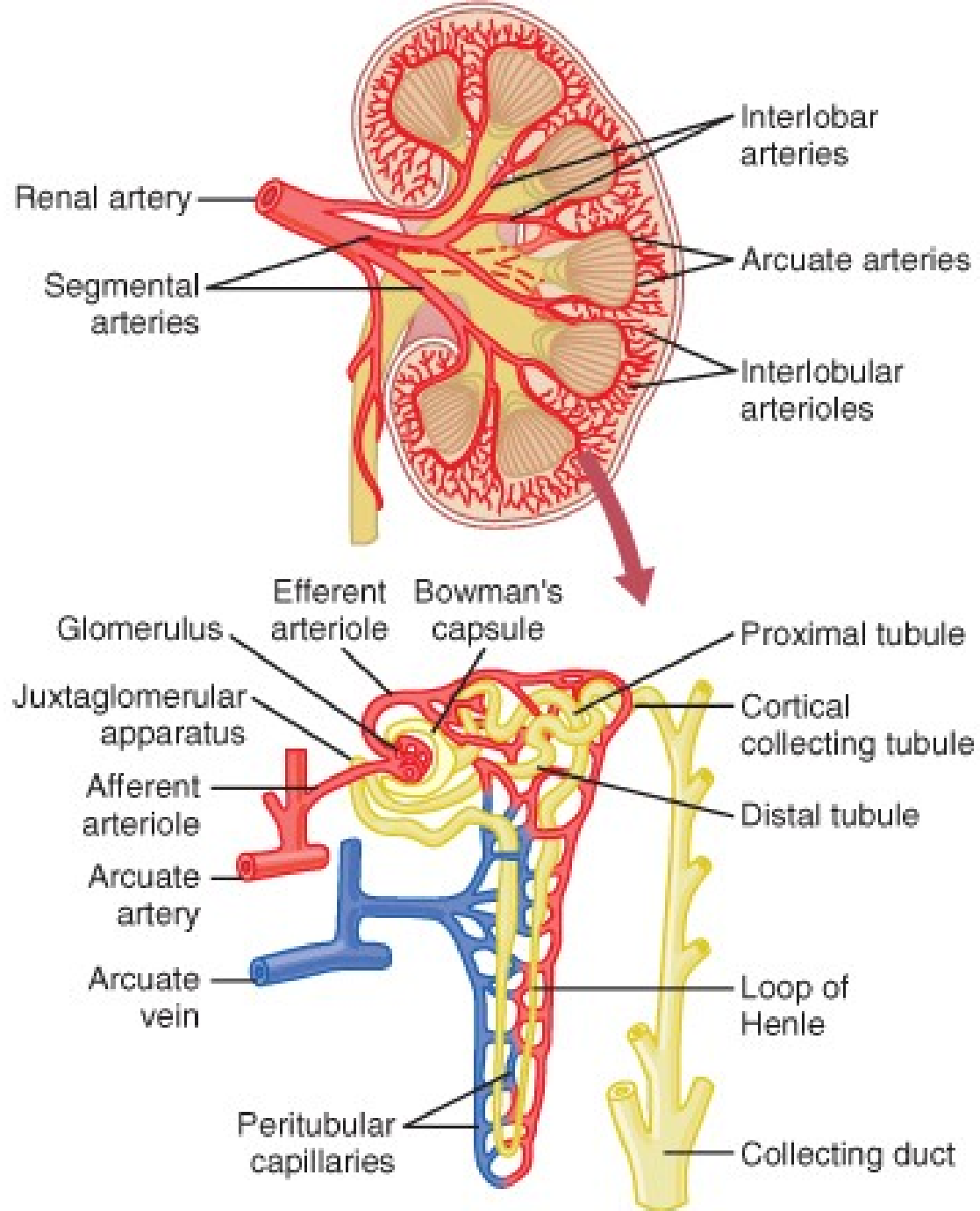
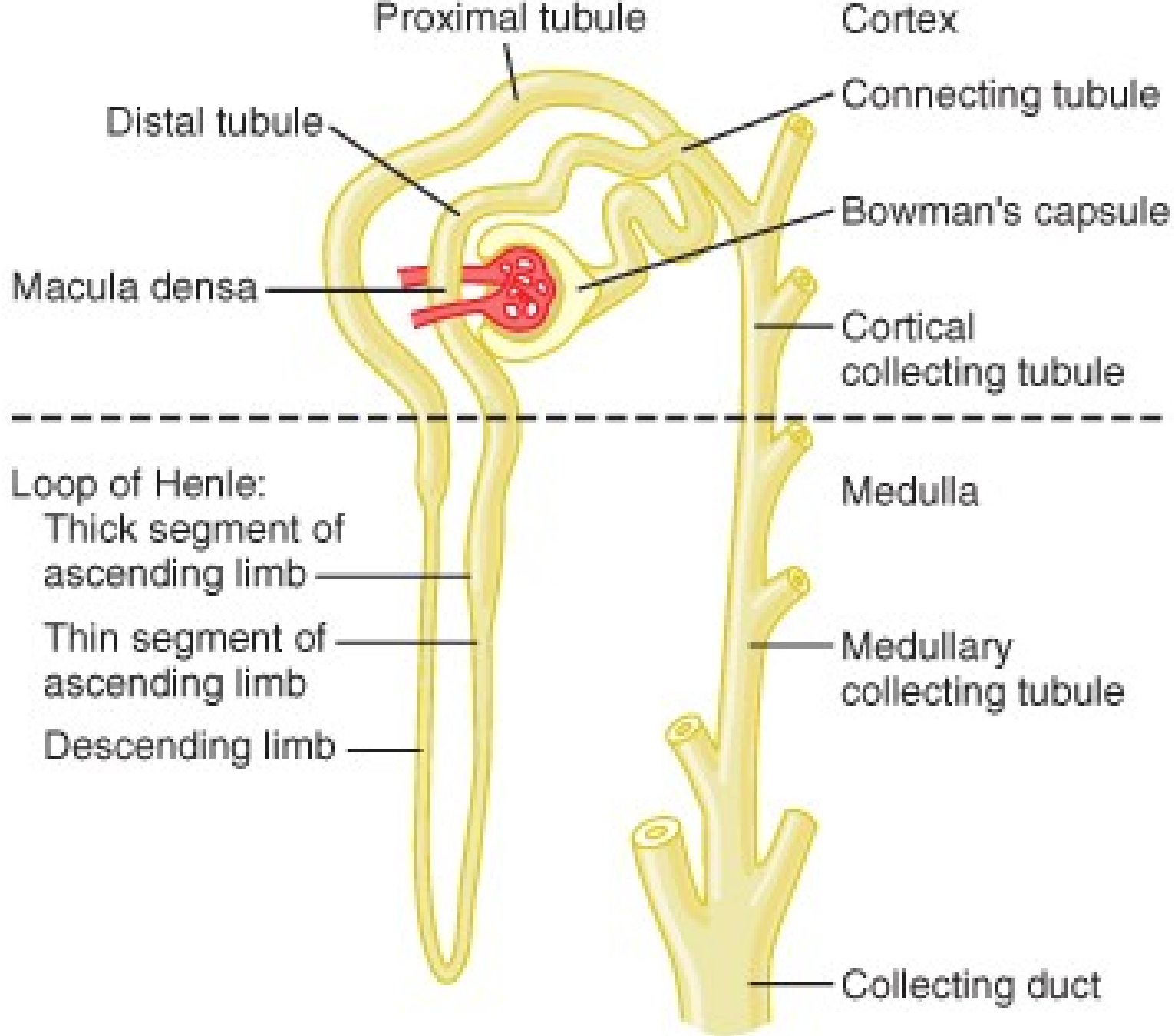


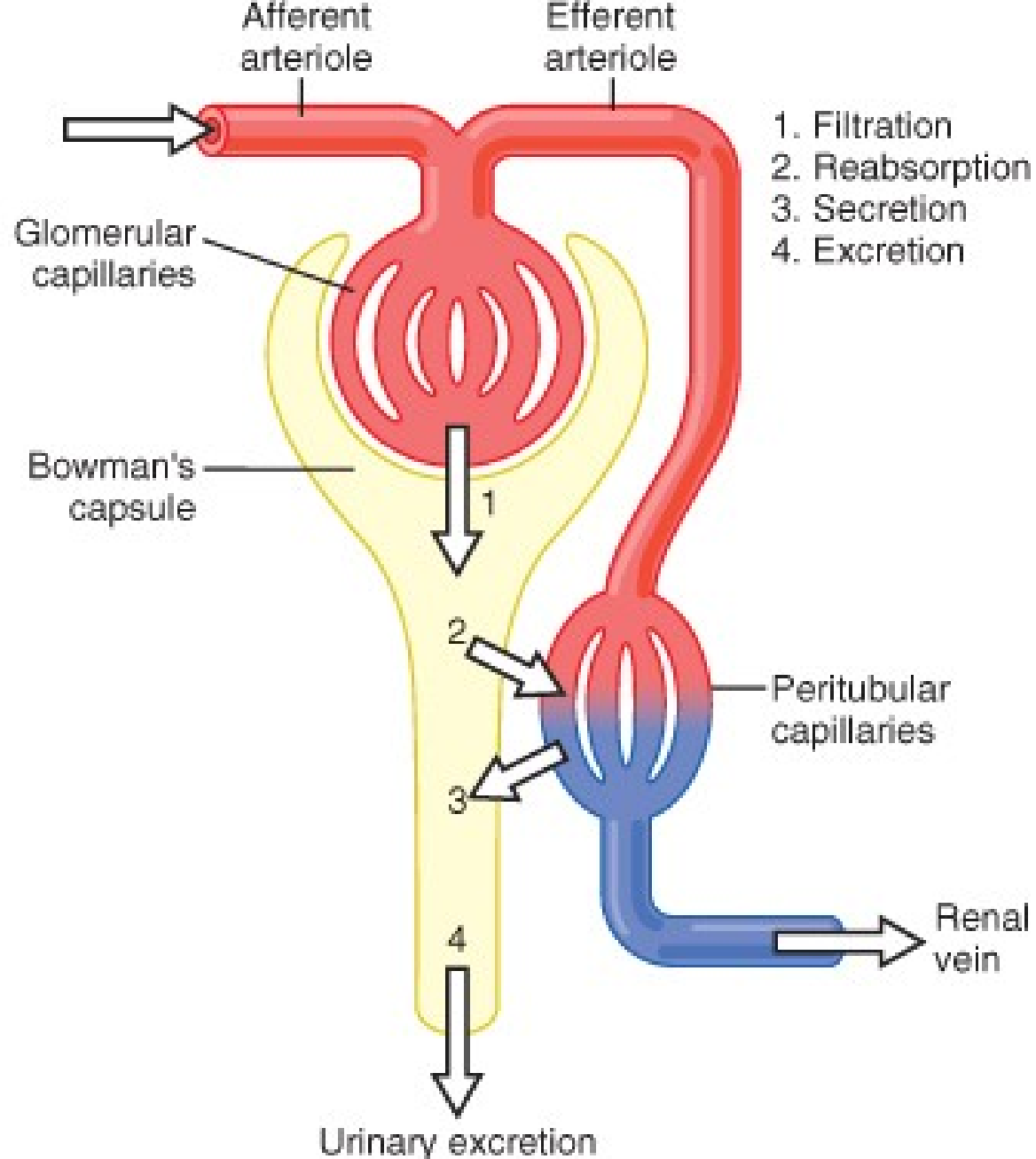
***Ledviny***

# ***FUNKCE***

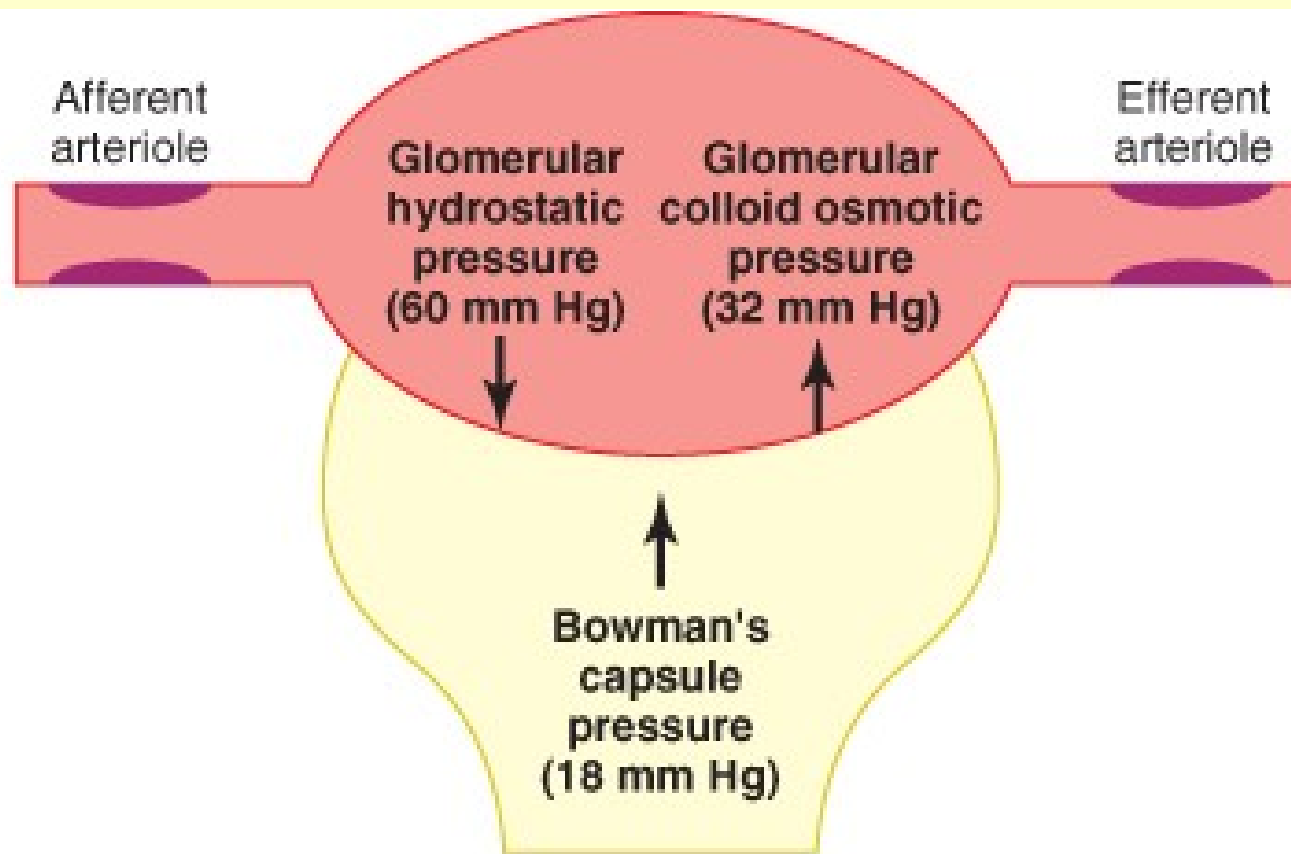
- **Vyloučení dusíkatých látek** (močovina, kreatinin, močová kyselina, xenobiotika)
- **Isoionie** (Na, K, Cl, Mg, Ca, H, HCO<sub>3</sub>)
- **Isovolemie** (ECV, objem plazmy)
- **Isotonie** (homeostáza osmotického tlaku)
- **Isohydrie** (homeostáza ACB rovnováhy)
- **Regulace TK** (renin, kininy, prostaglandiny,
- **Metabolismus** (proteiny, peptidy, toxiny, glukoneogeneze)
- **Tvorba hormonů** (calcitriol, erythropoetin, renin)
- **Účinek hormonů** (ADH, aldosteron, adrenalin, parathormon atd.)



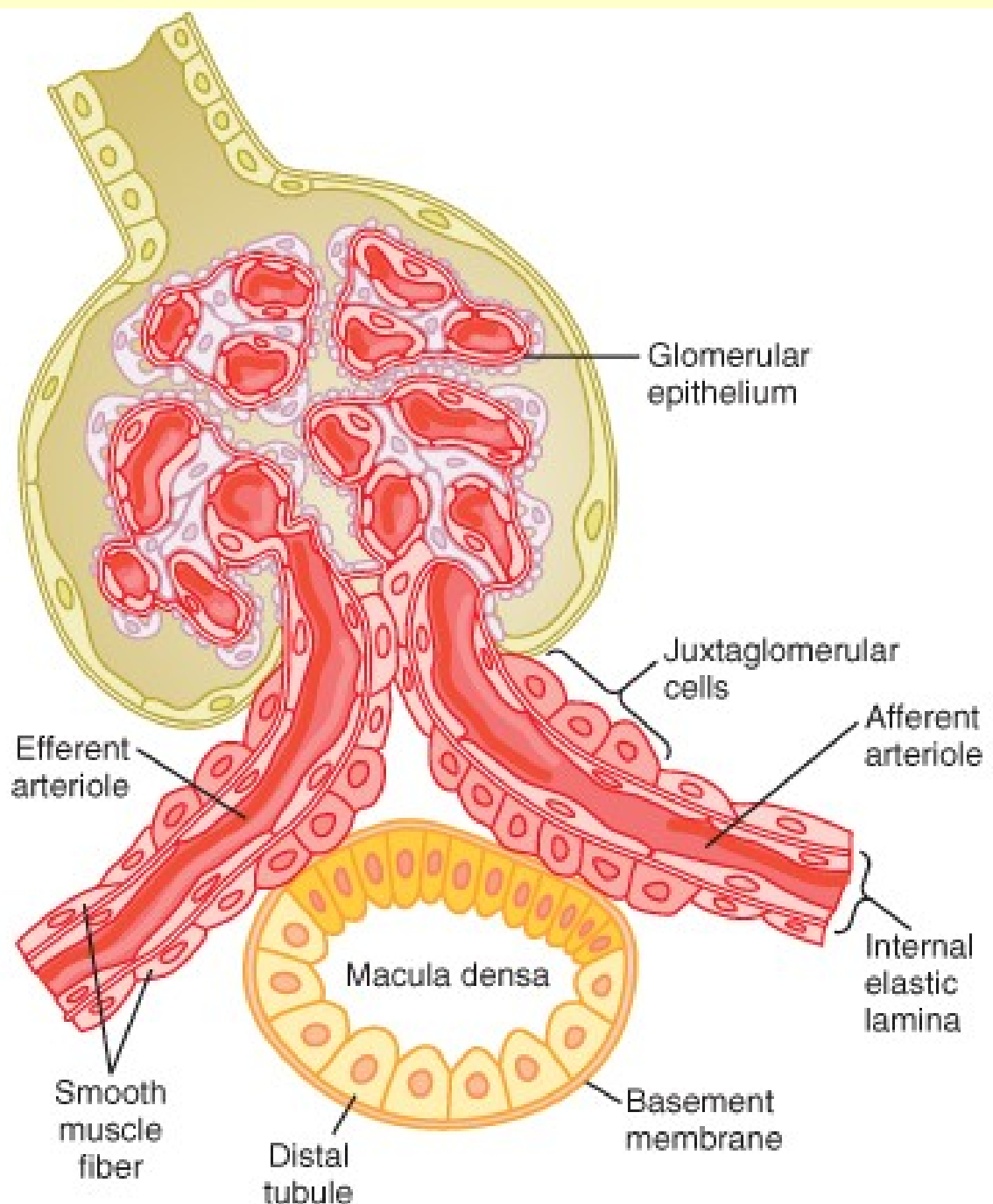


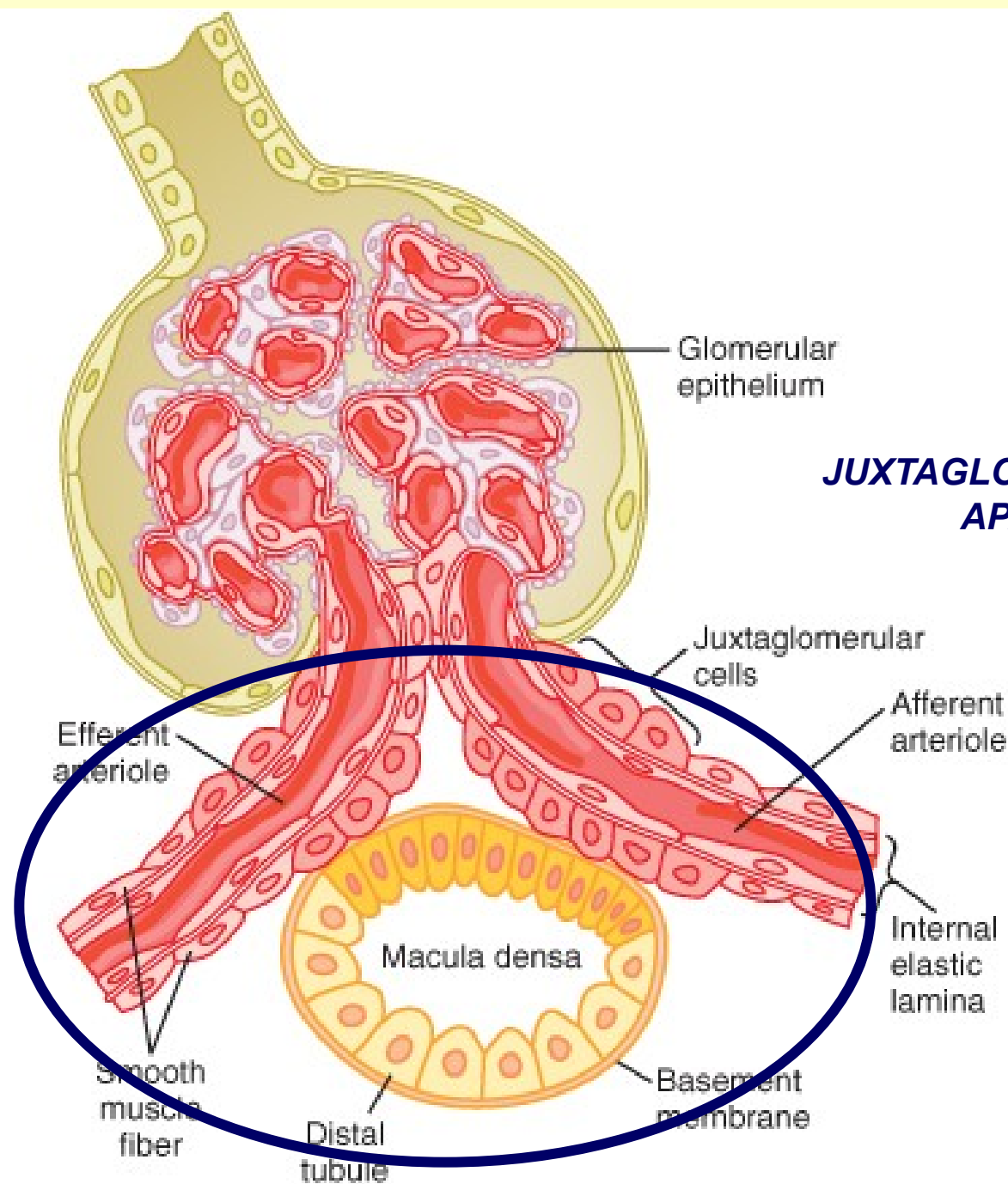


$$\text{Excretion} = \text{Filtration} - \text{Reabsorption} + \text{Secretion}$$

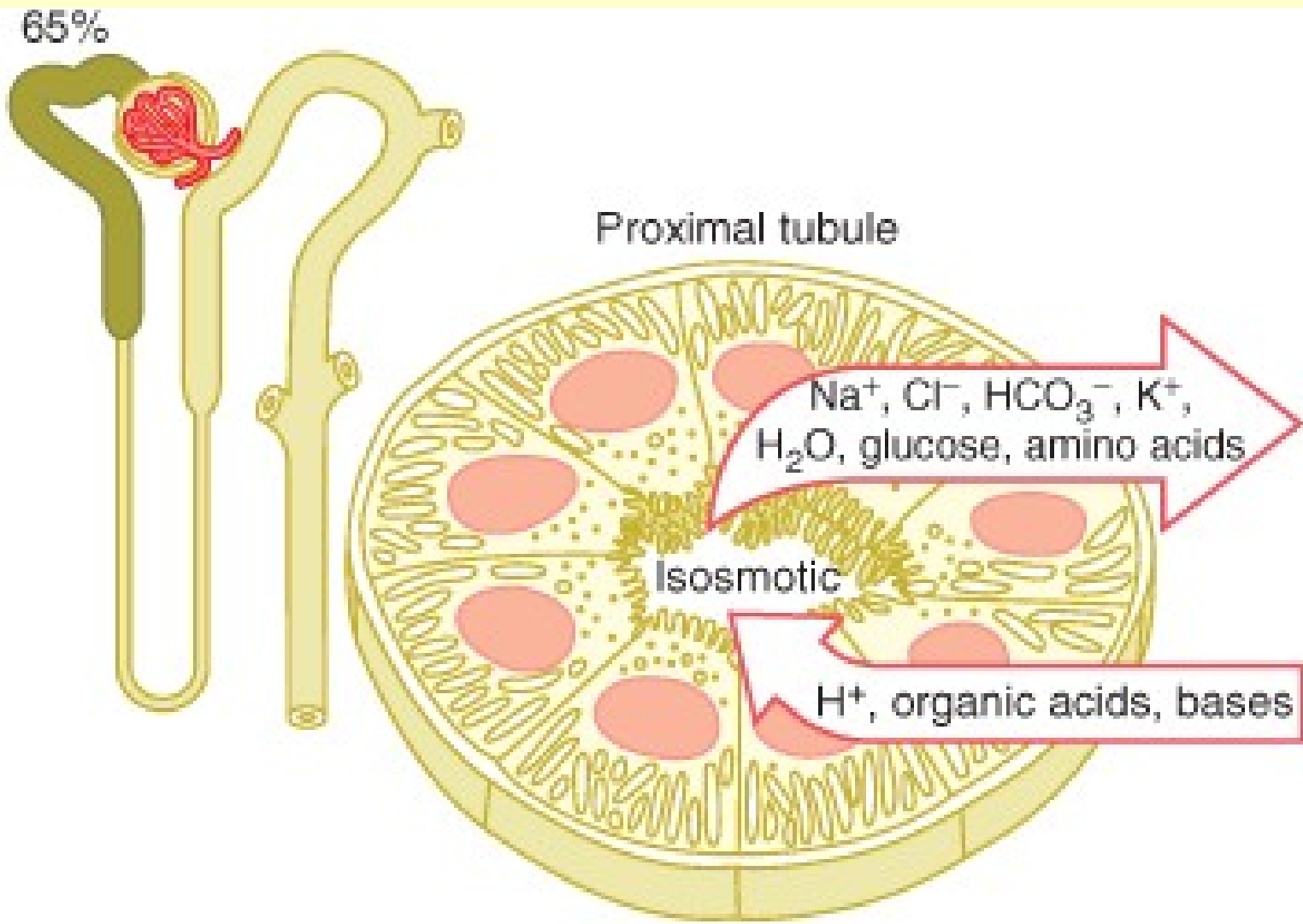


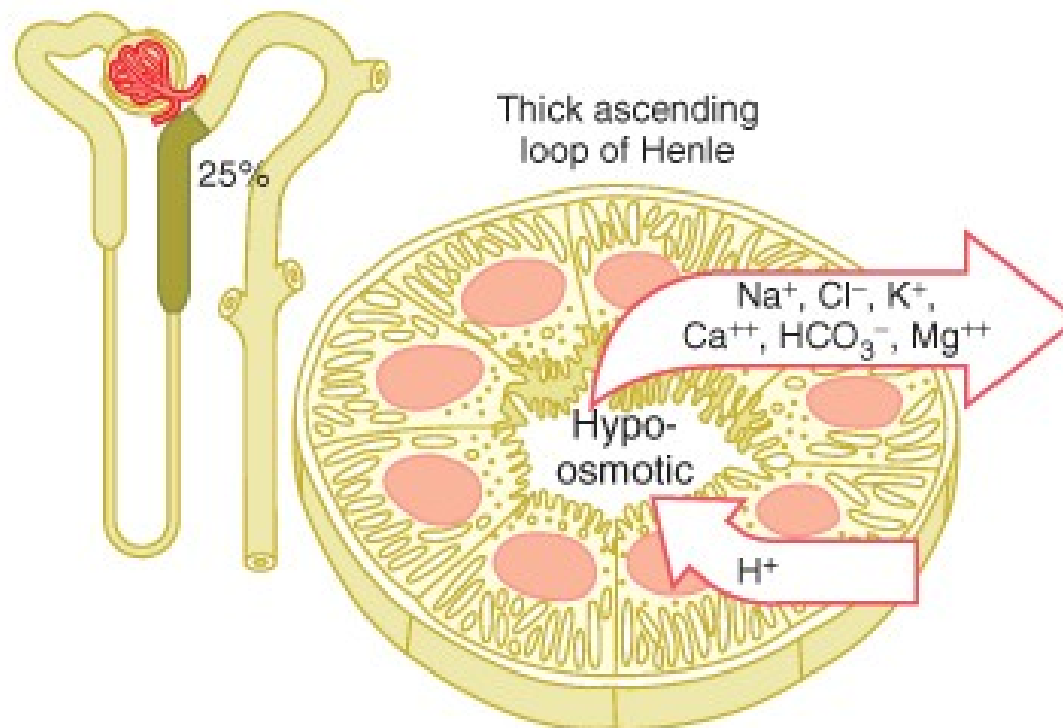
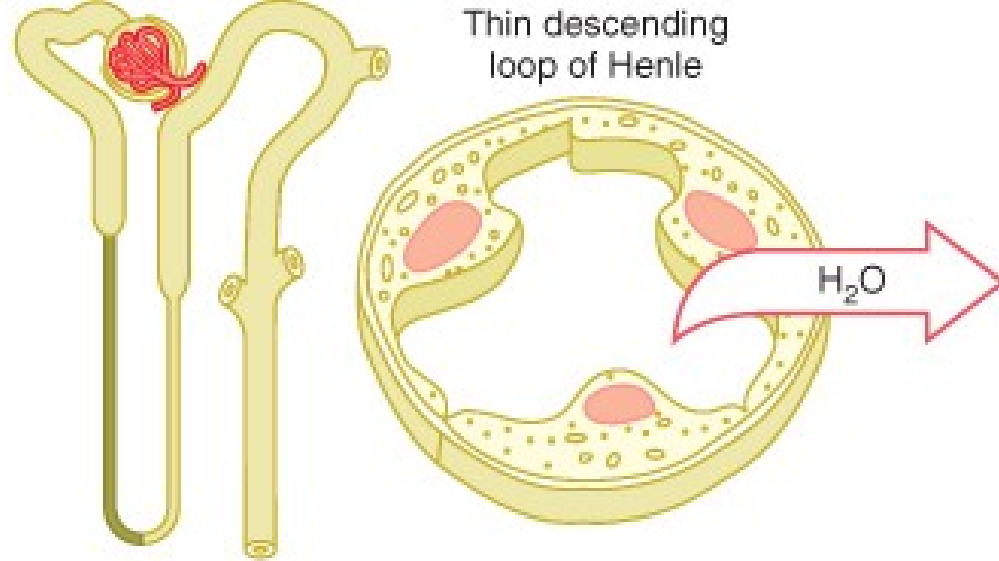
$$\text{Net filtration pressure (10 mm Hg)} = \text{Glomerular hydrostatic pressure (60 mm Hg)} - \text{Bowman's capsule pressure (18 mm Hg)} - \text{Glomerular oncotic pressure (32 mm Hg)}$$

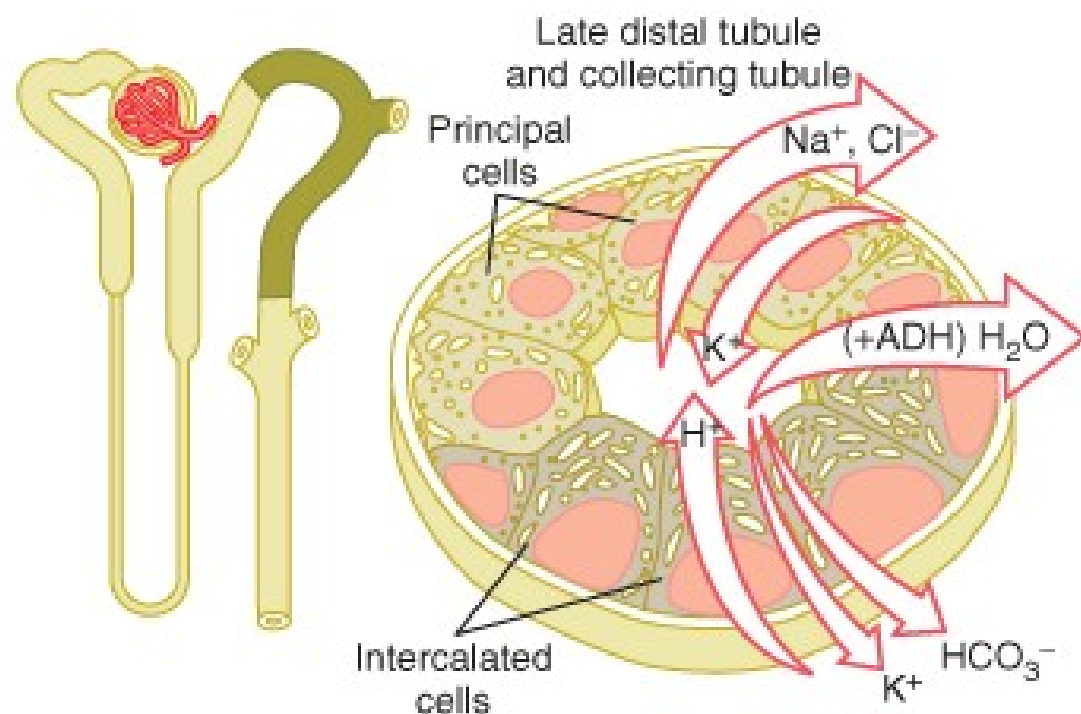
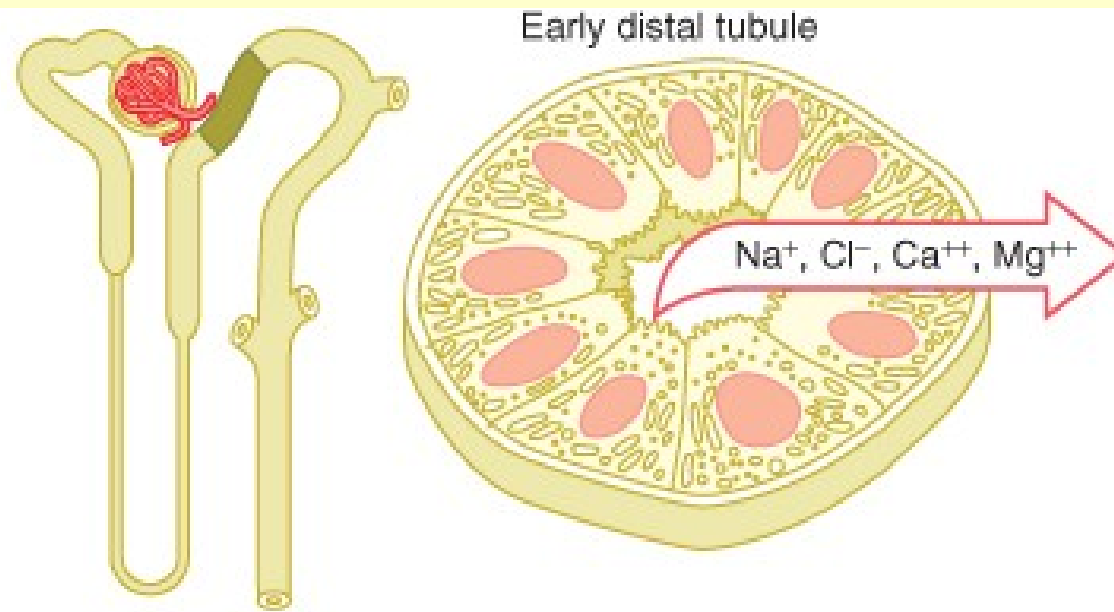


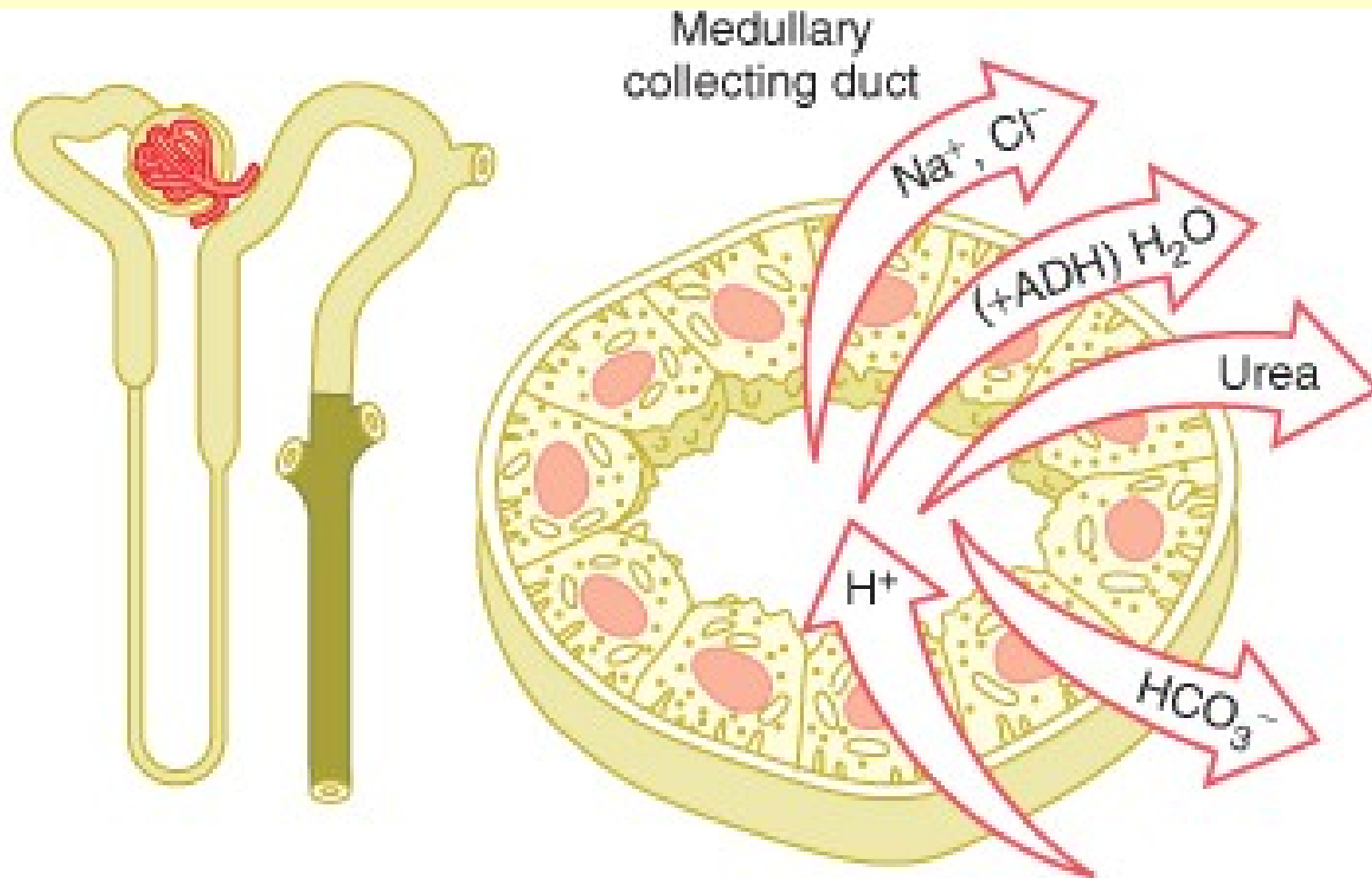




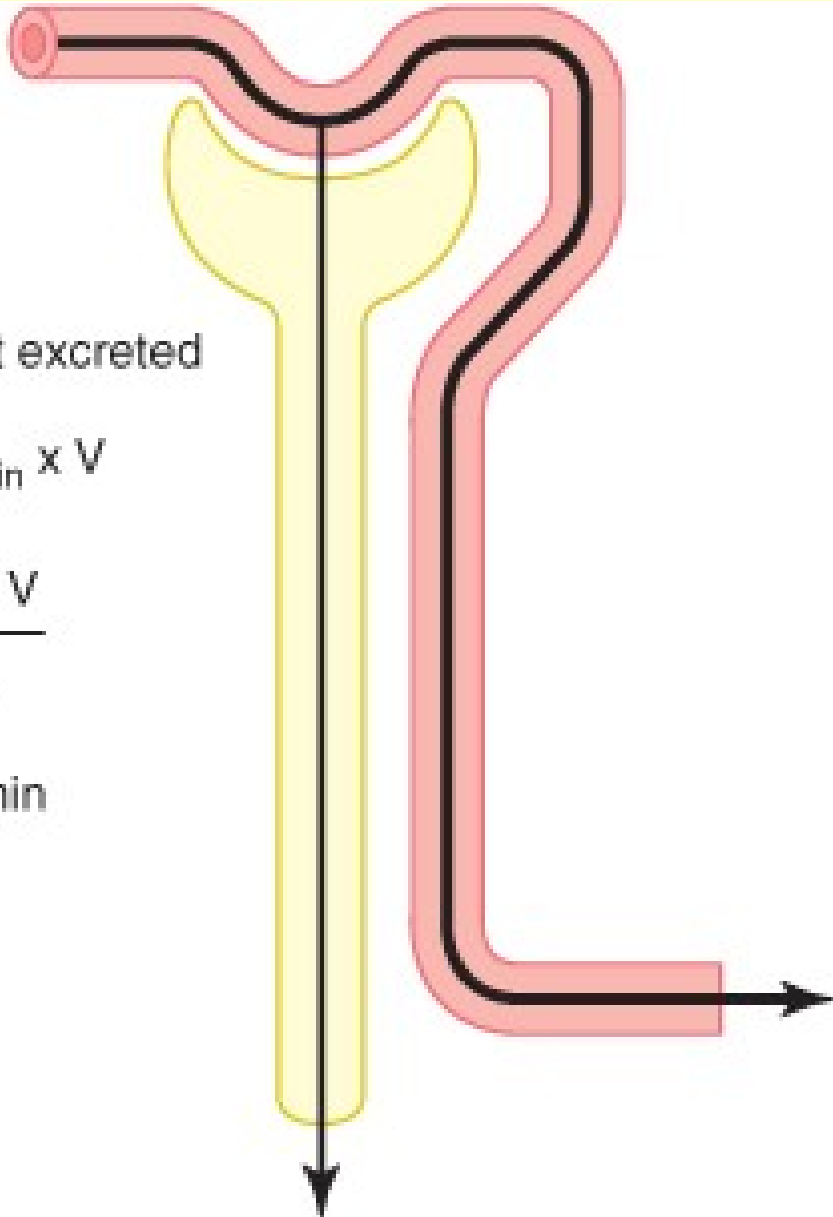








$$P_{\text{inulin}} = 1 \text{ mg/ml}$$



Amount filtered = Amount excreted

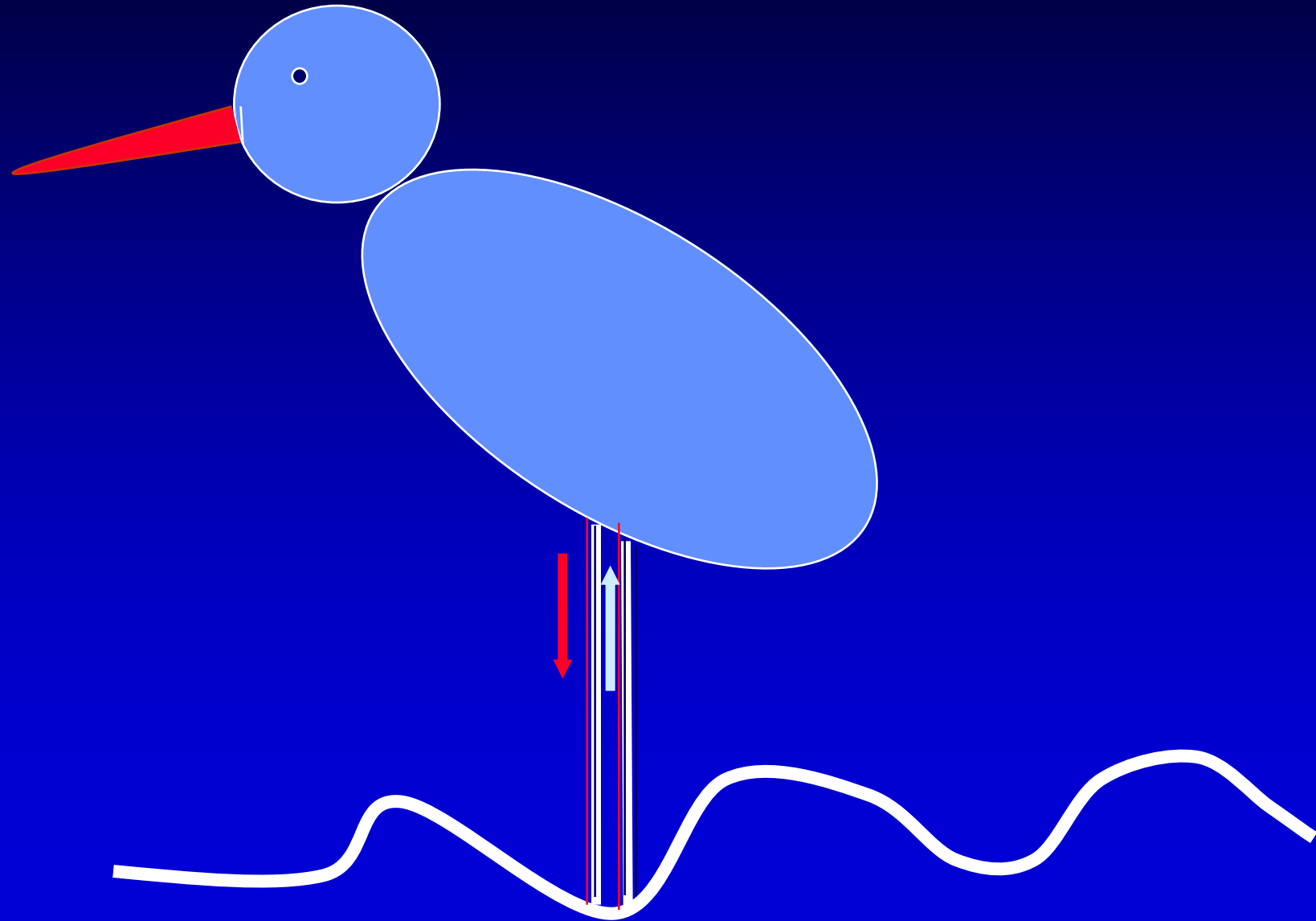
$$\text{GFR} \times P_{\text{inulin}} = U_{\text{inulin}} \times V$$

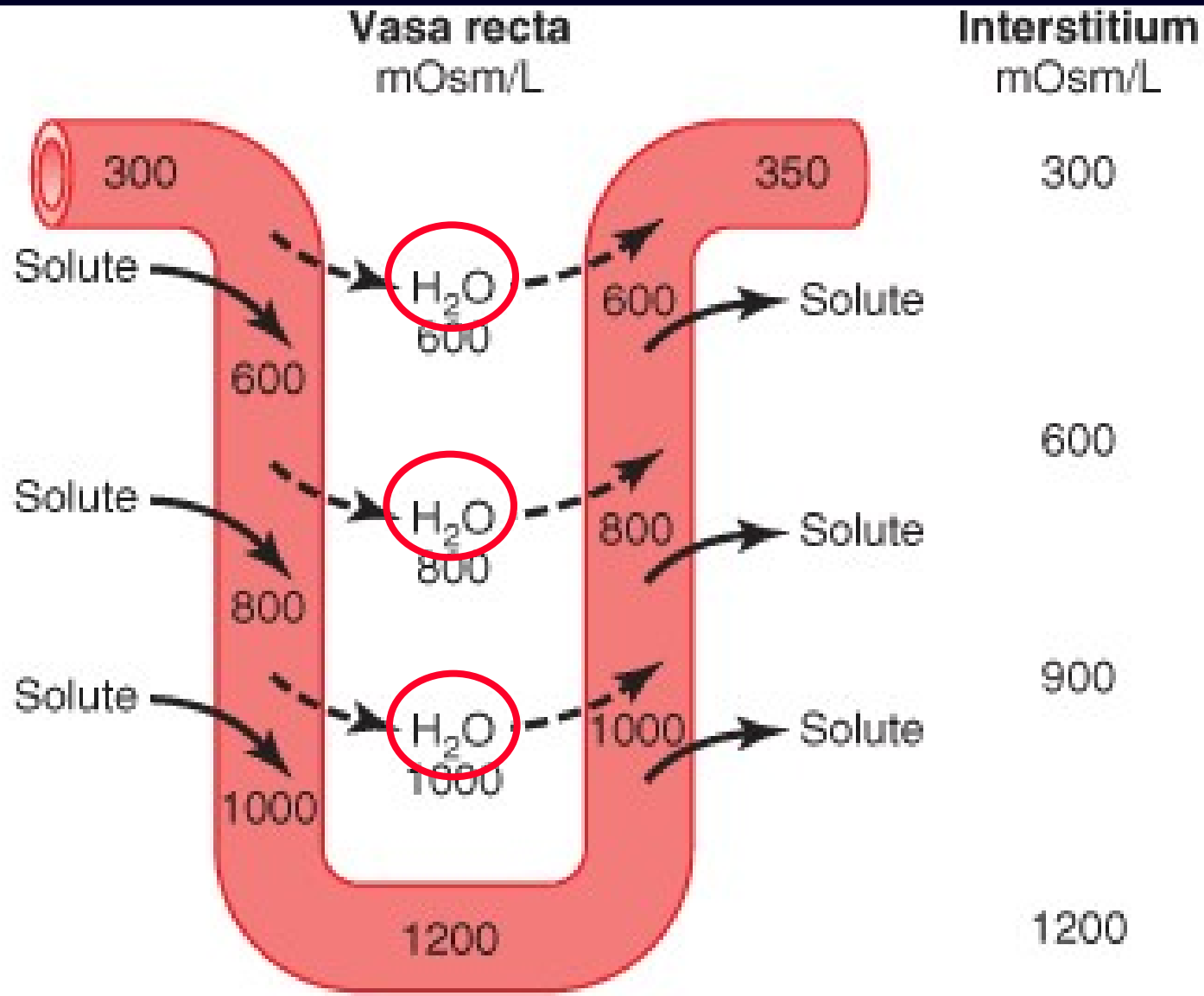
$$\text{GFR} = \frac{U_{\text{inulin}} \times V}{P_{\text{inulin}}}$$

$$\text{GFR} = 125 \text{ ml/min}$$

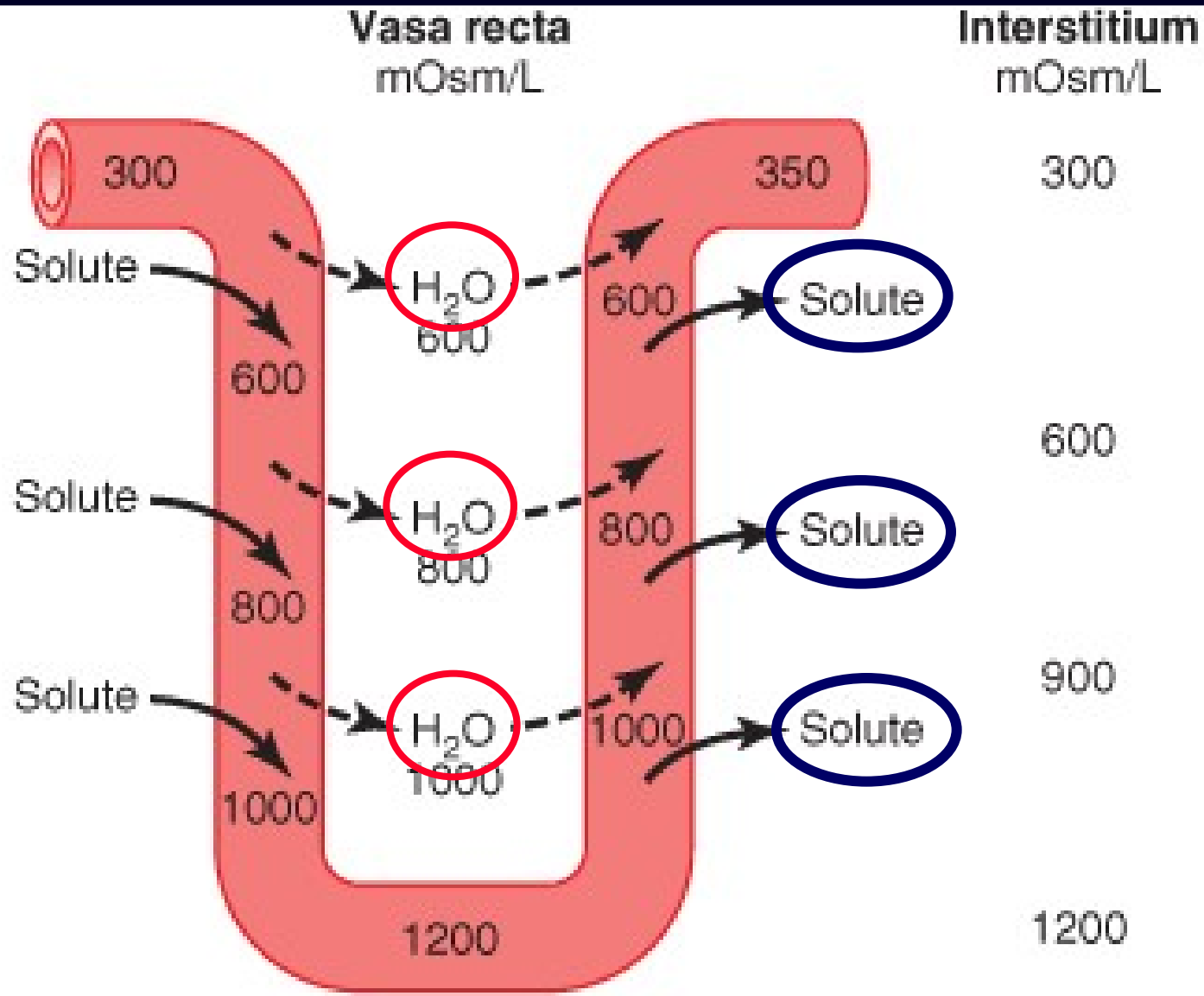
$$U_{\text{inulin}} = 125 \text{ mg/ml}$$
$$V = 1 \text{ ml/min}$$

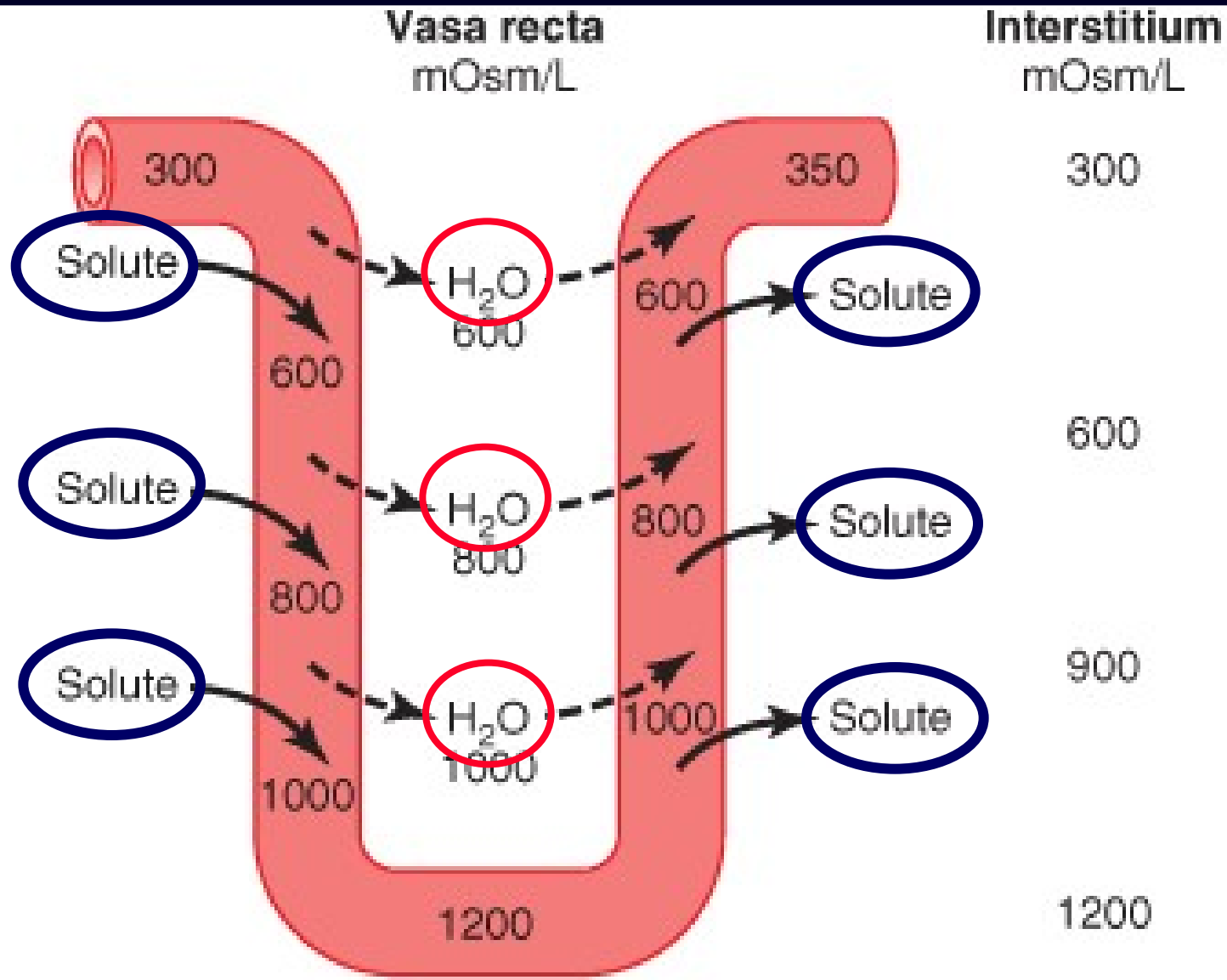
# PROTIPROUDNÍ SYSTÉM

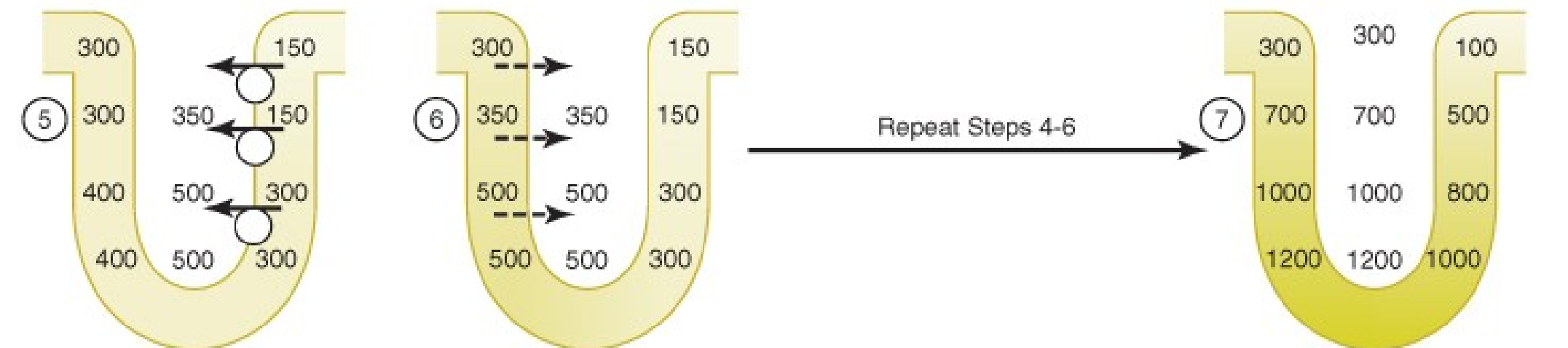
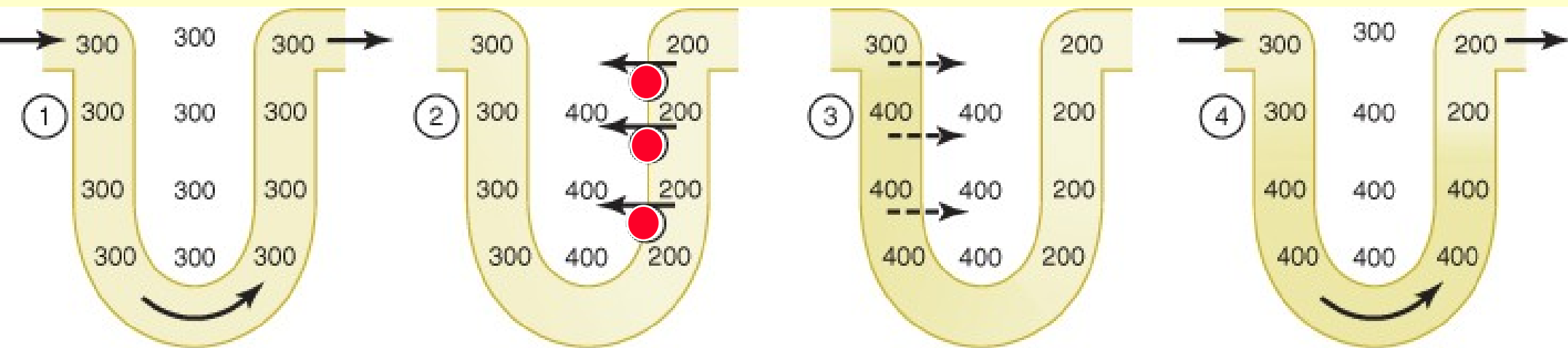


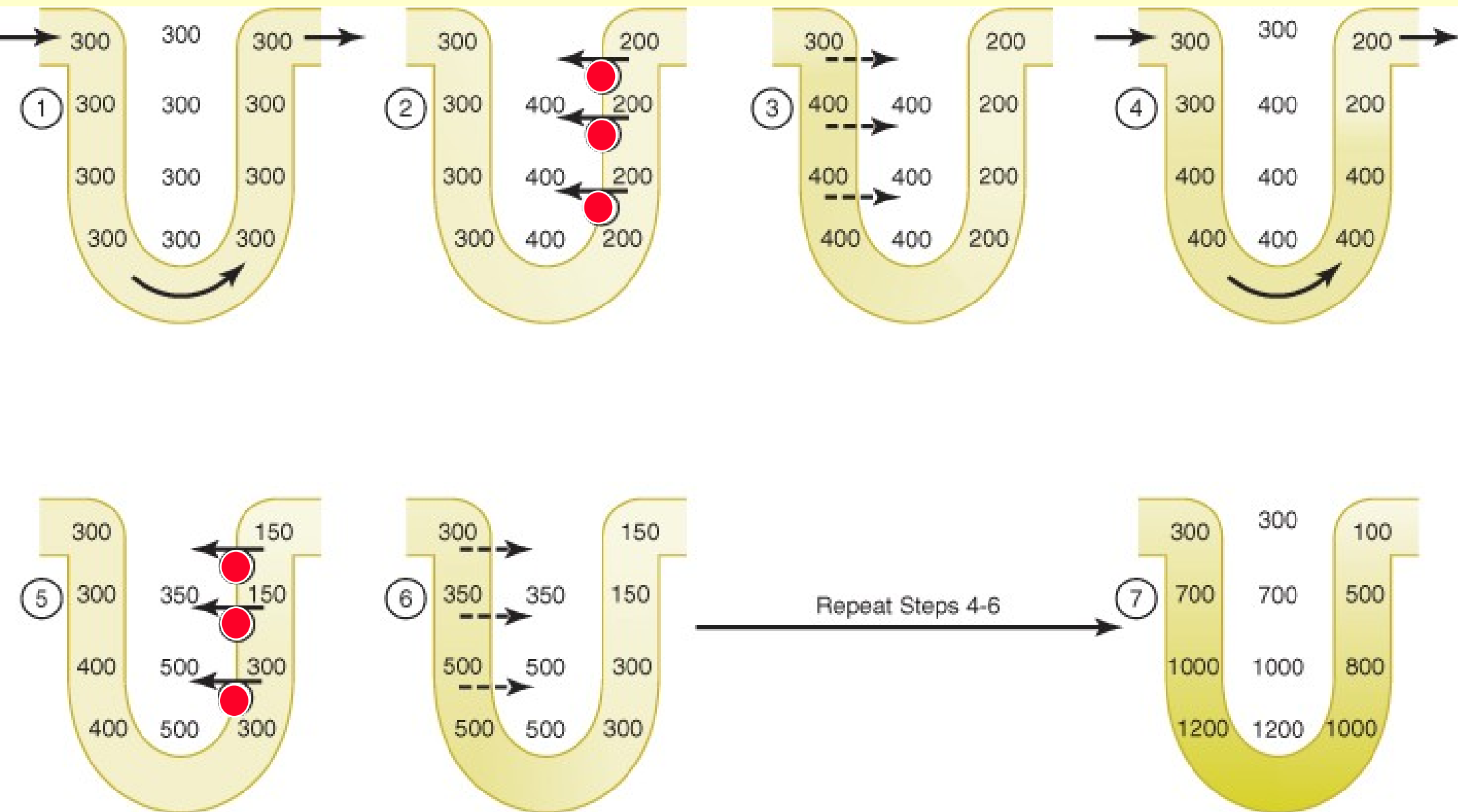


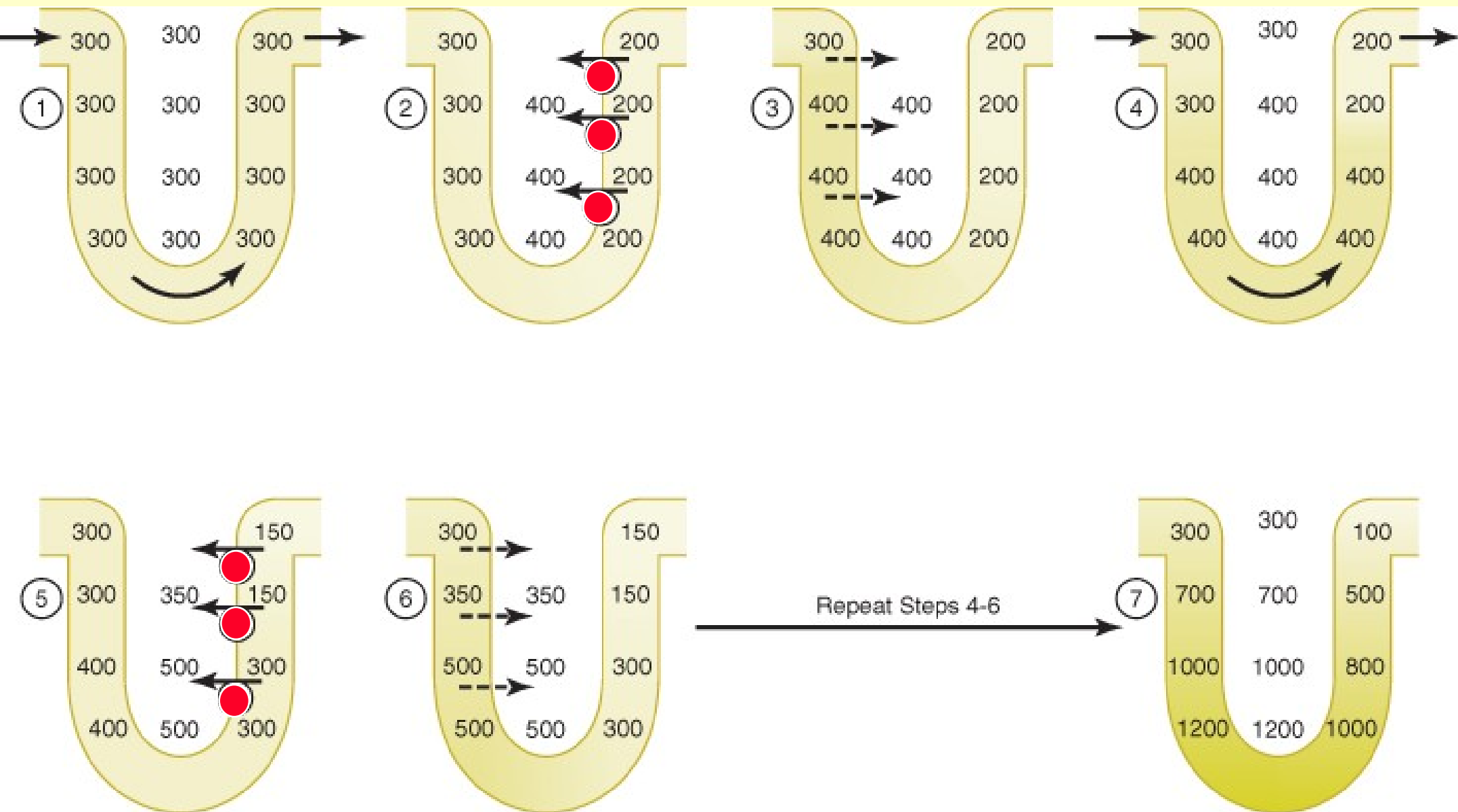


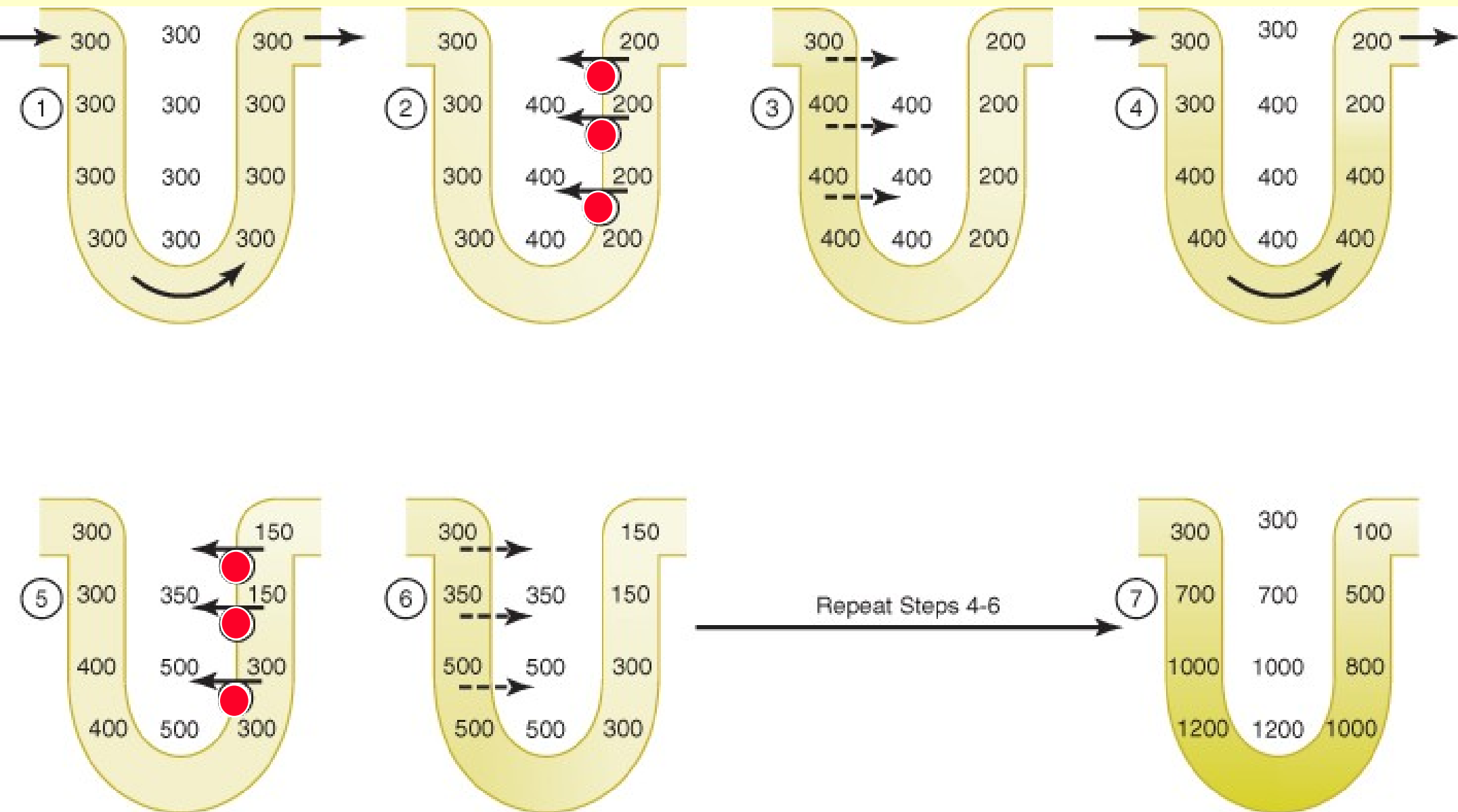


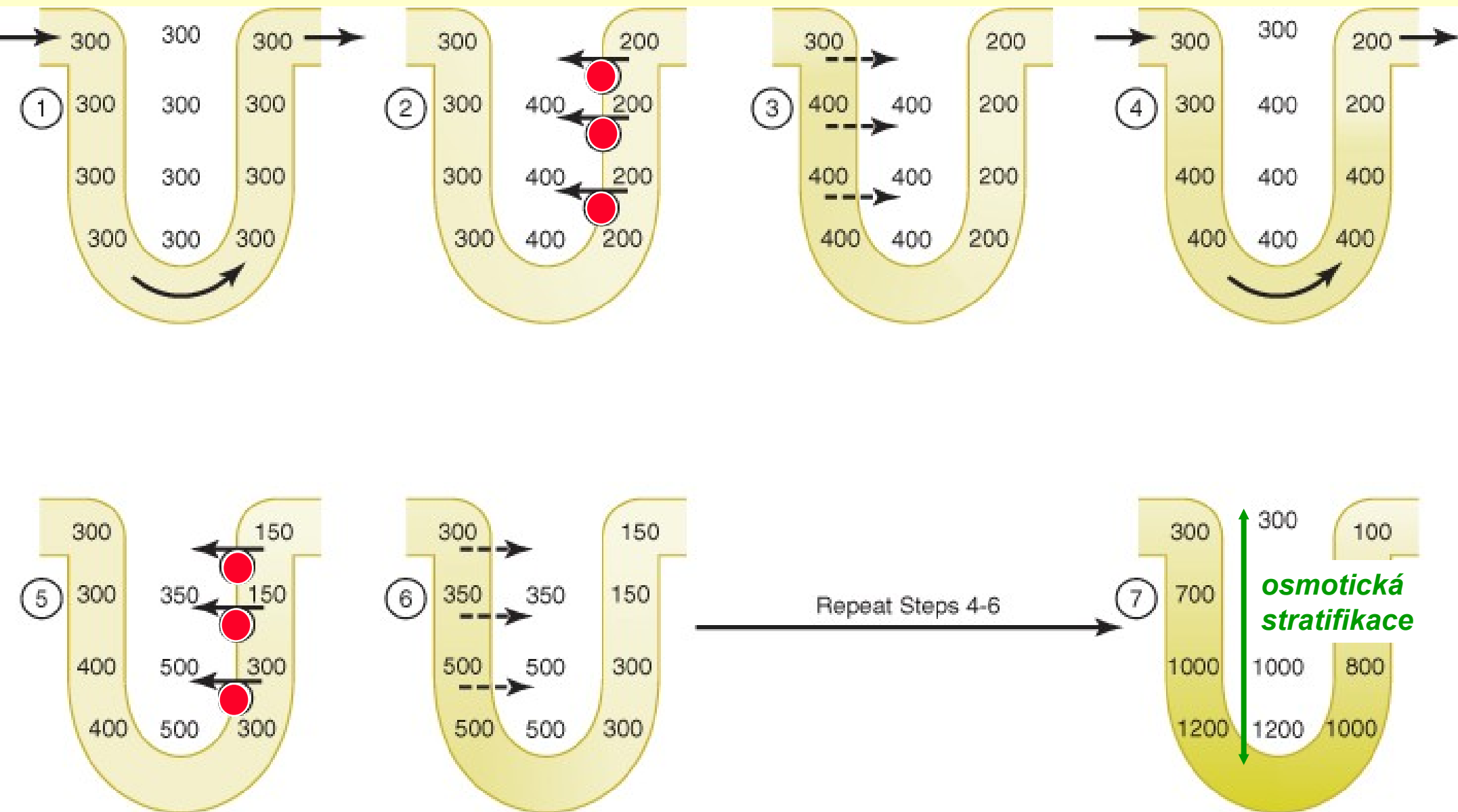


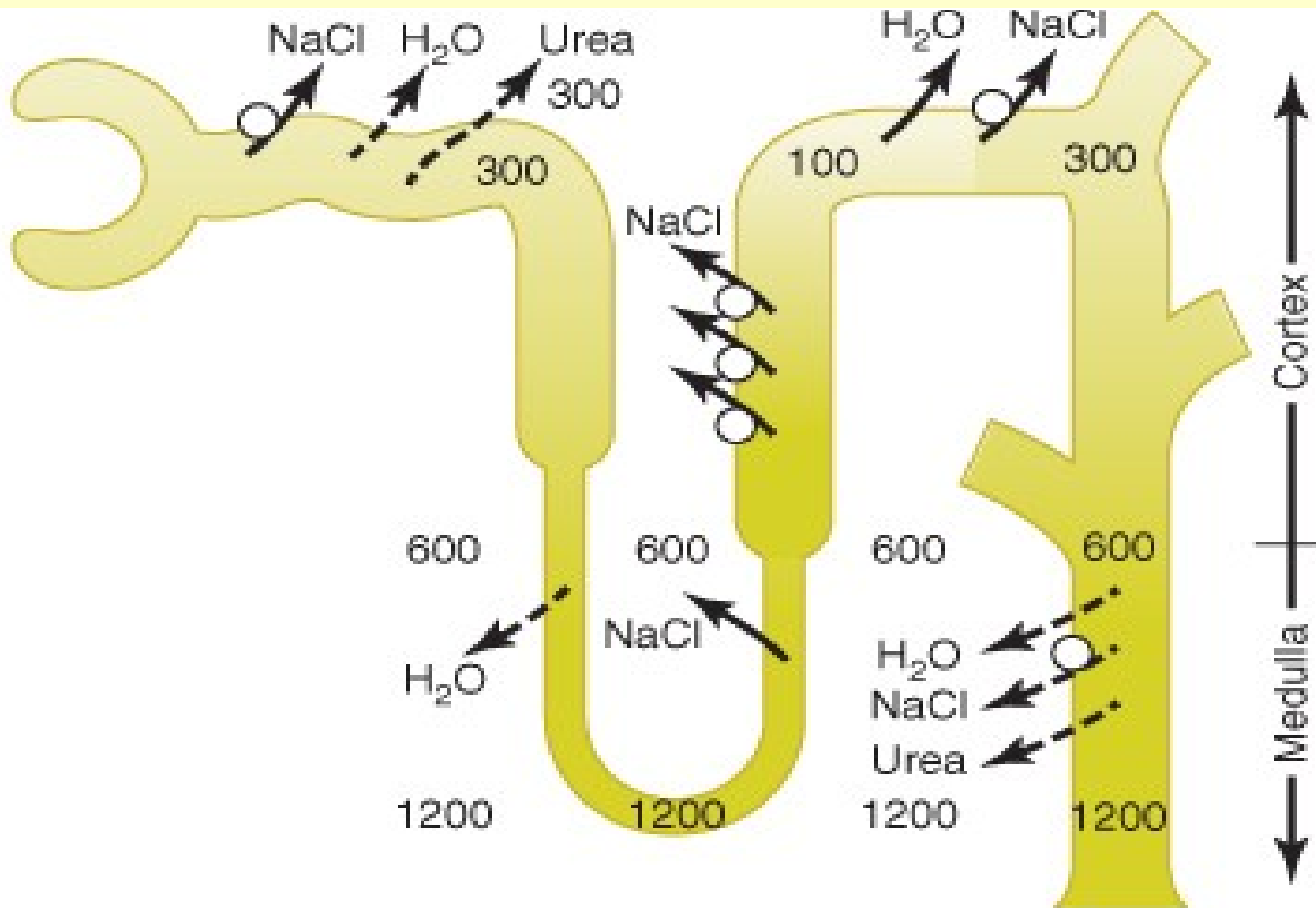




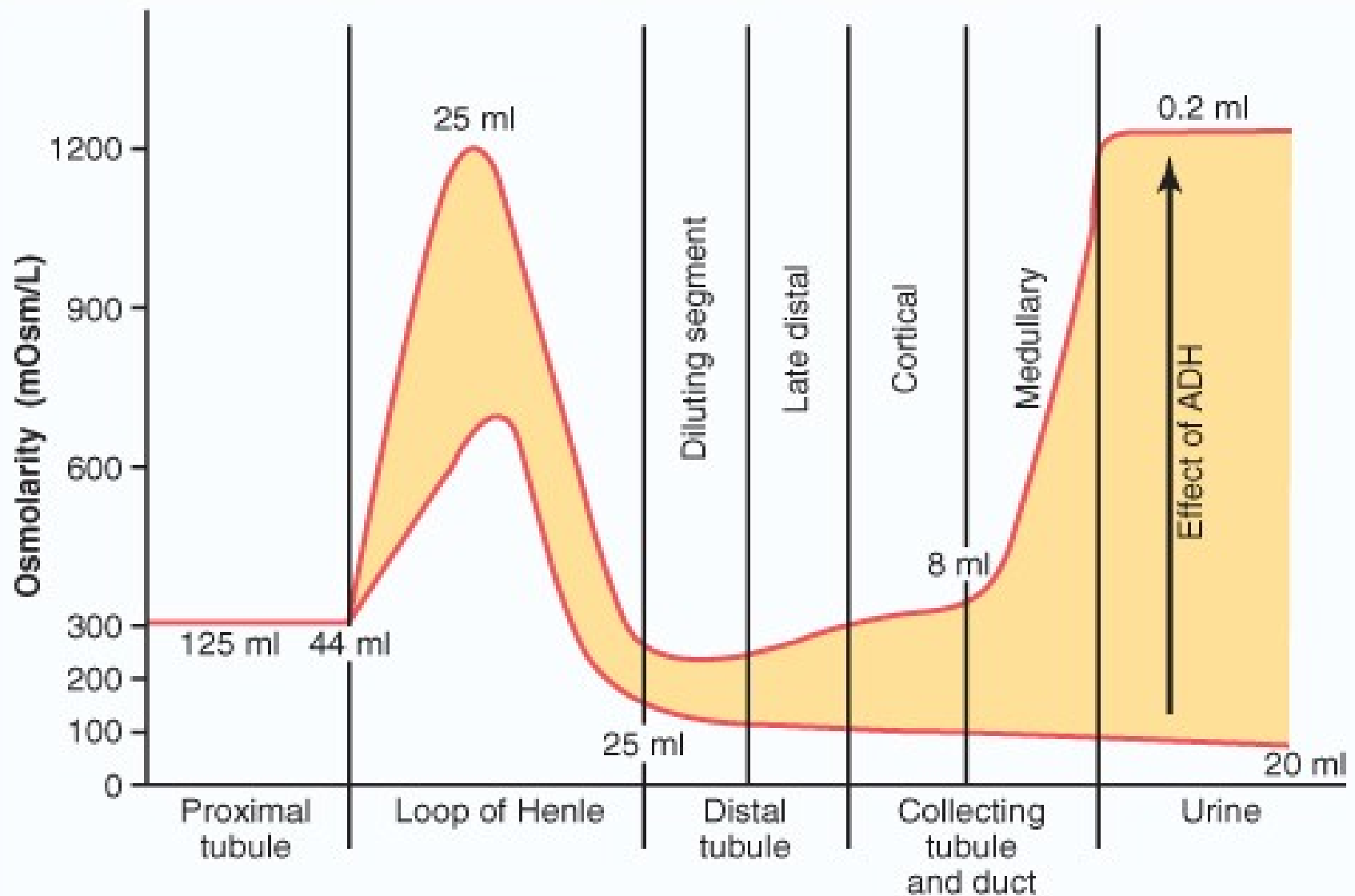












# DIALÝZA

