

Fig. 24.1

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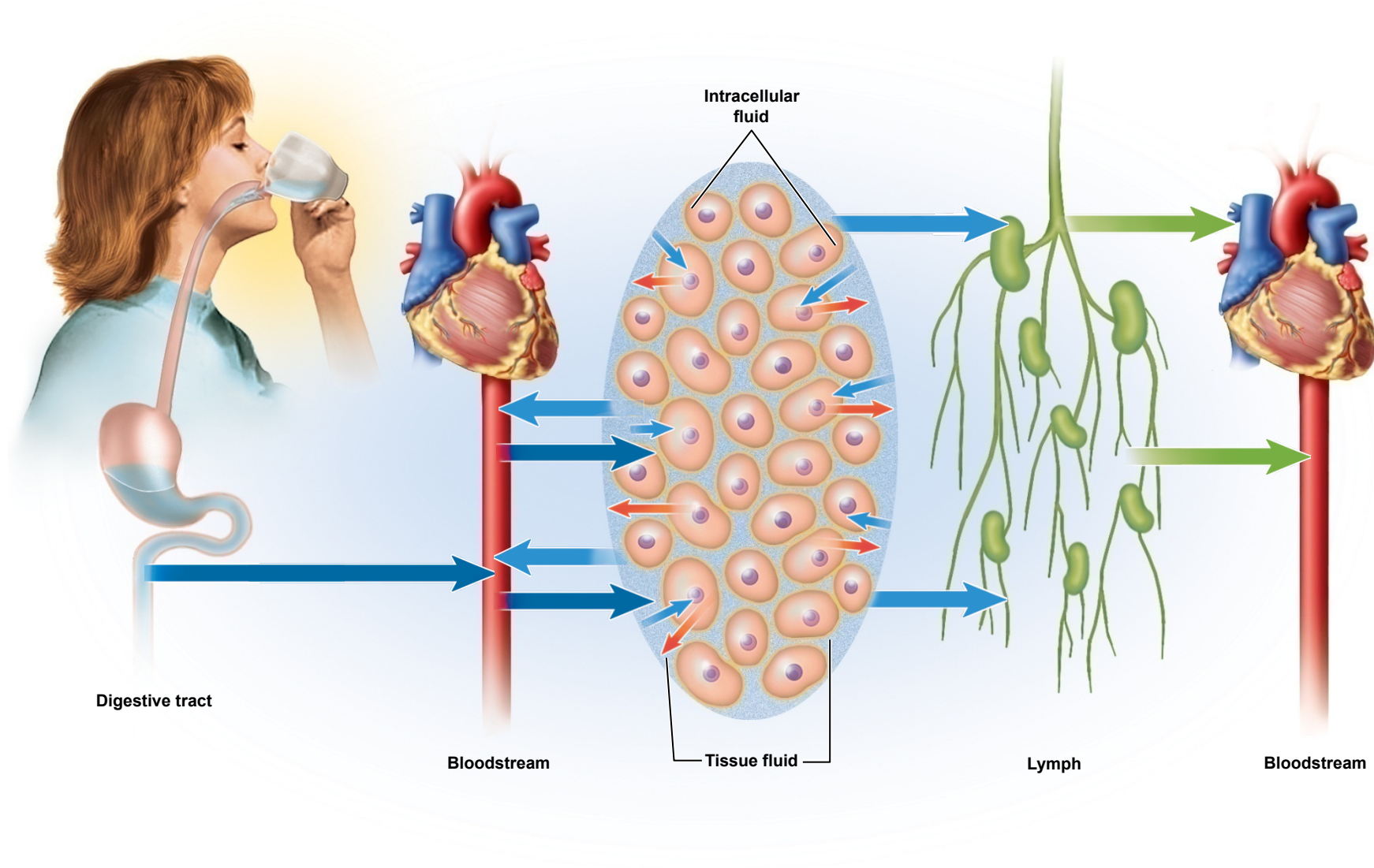


Fig. 24.2

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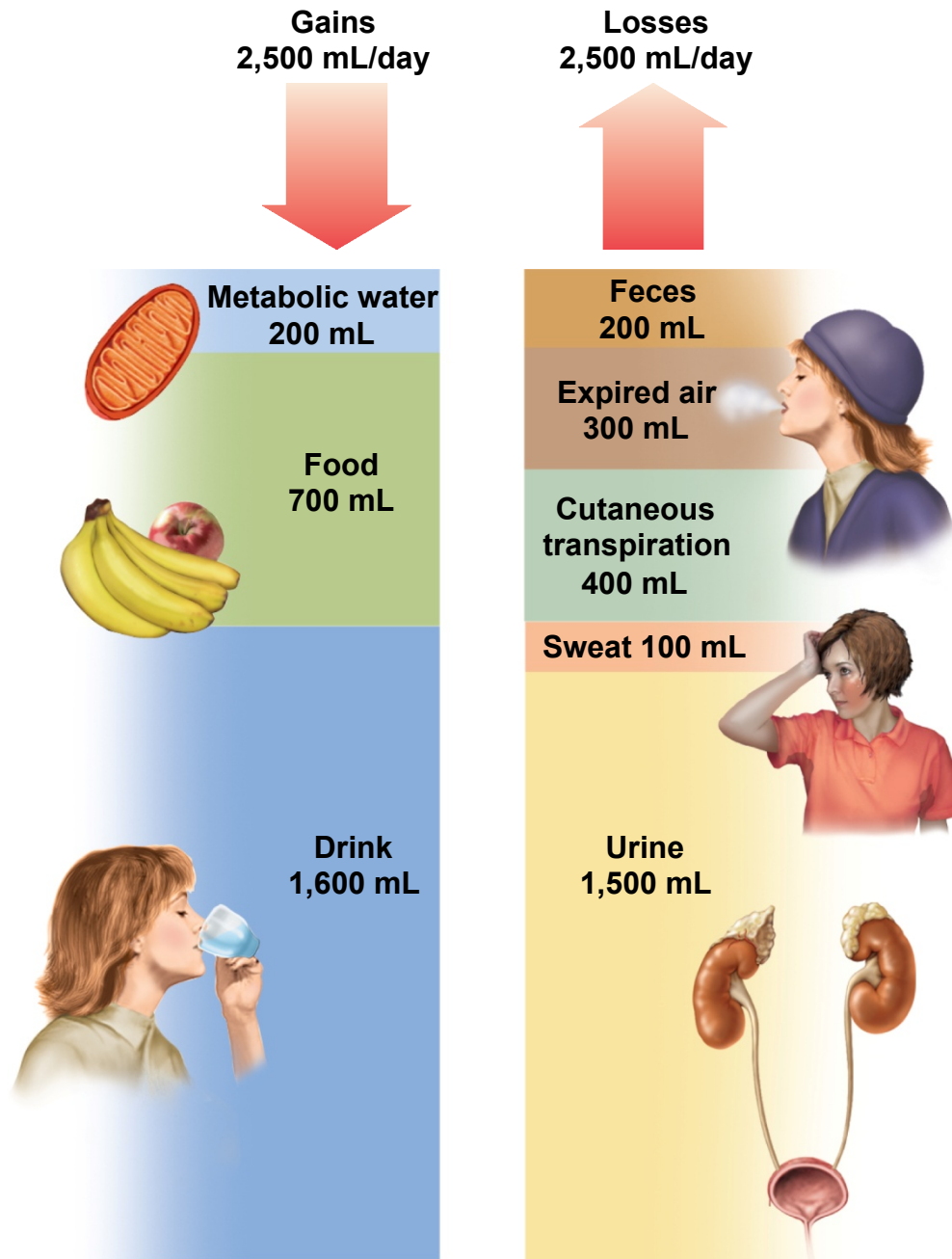


Fig. 24.3

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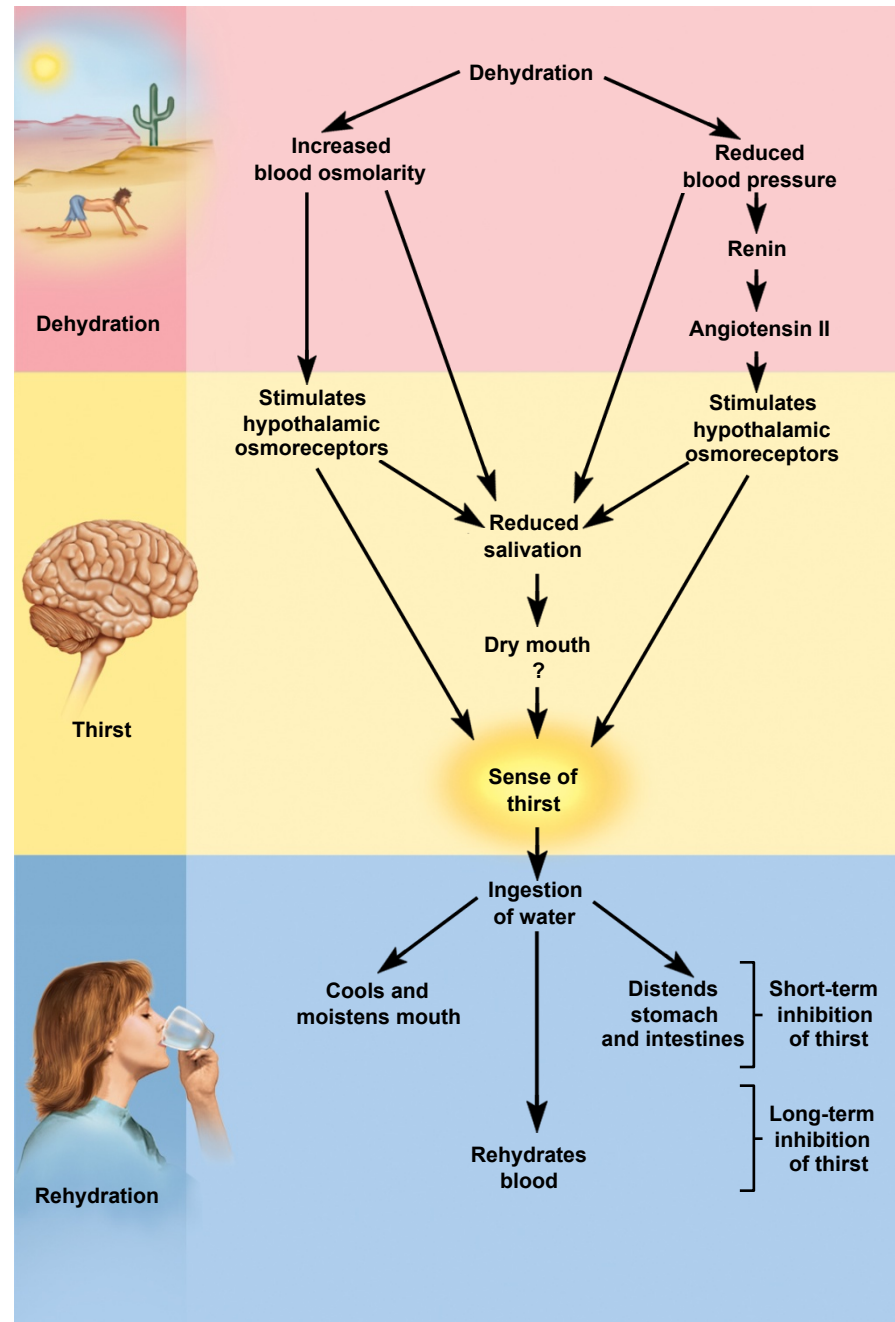


Fig. 24.4

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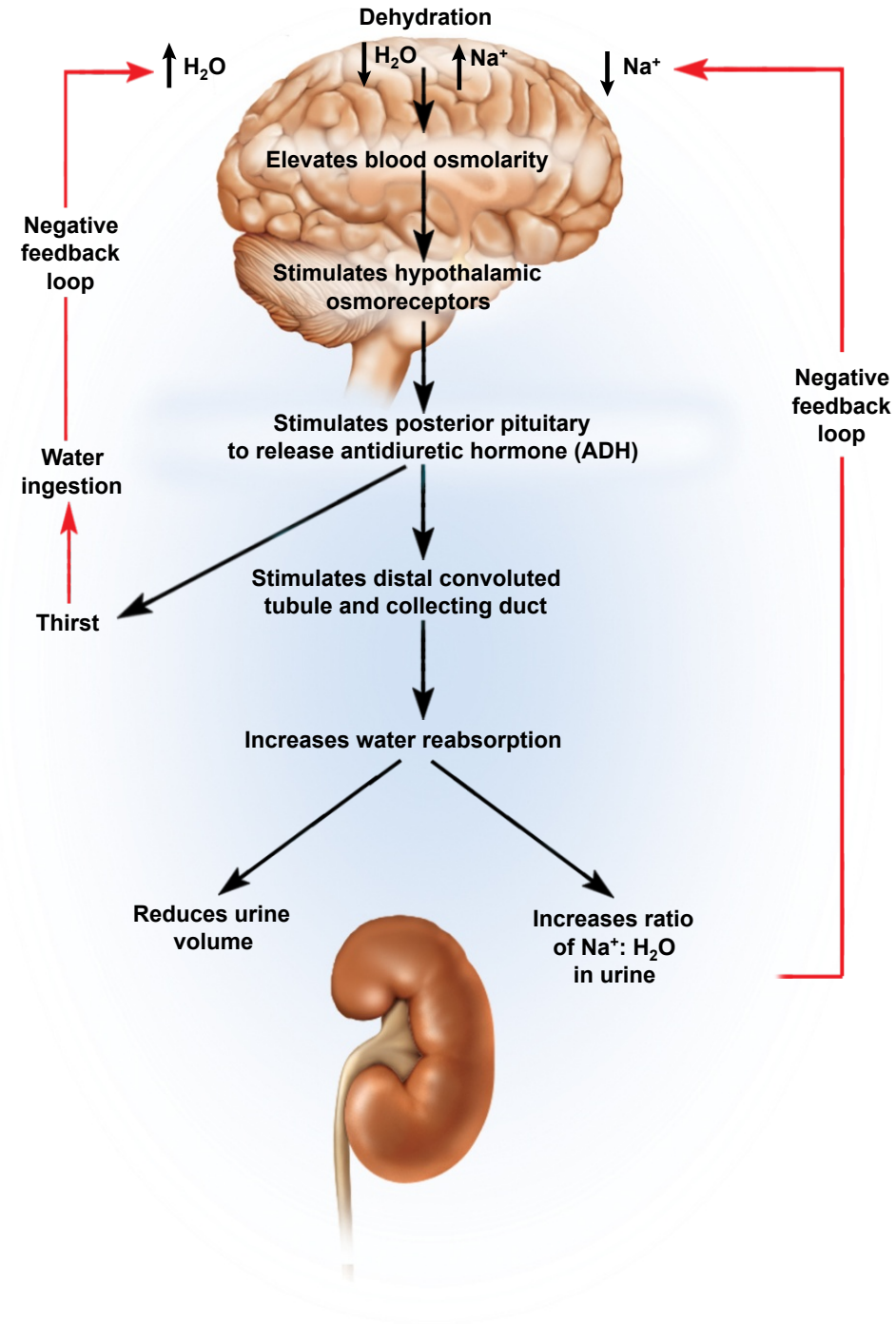


Fig. 24.5

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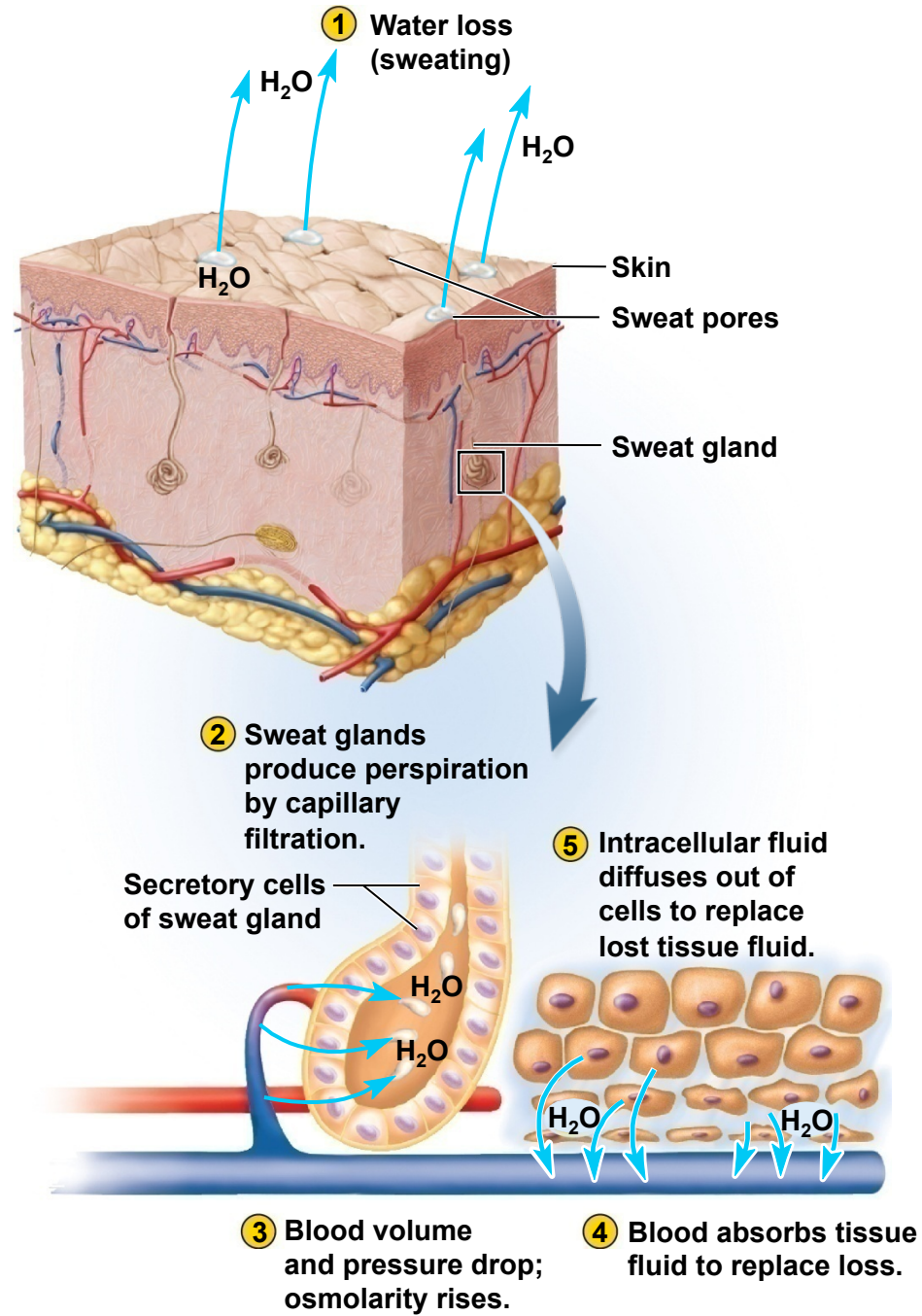


Fig. 24.6

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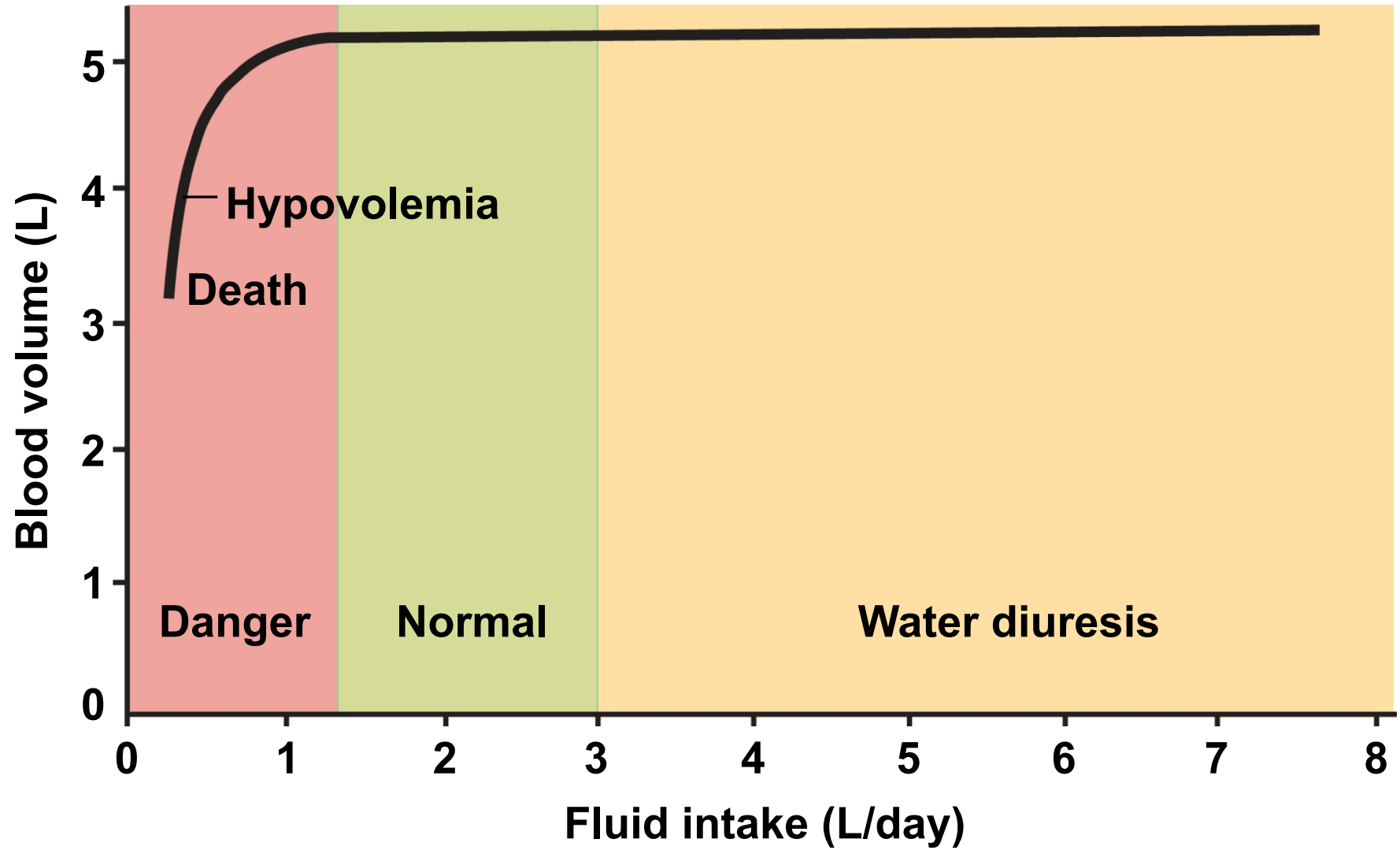
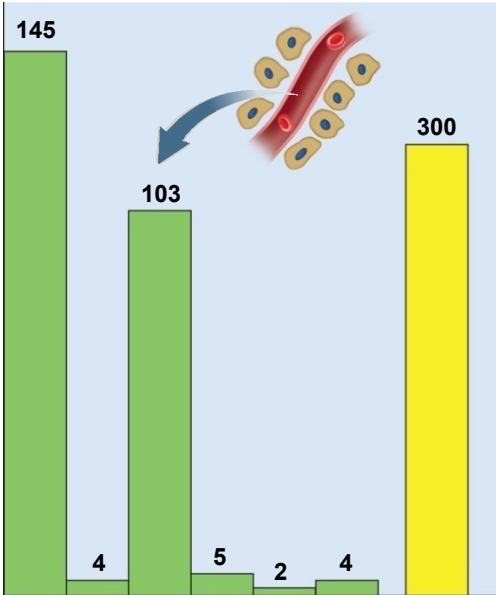
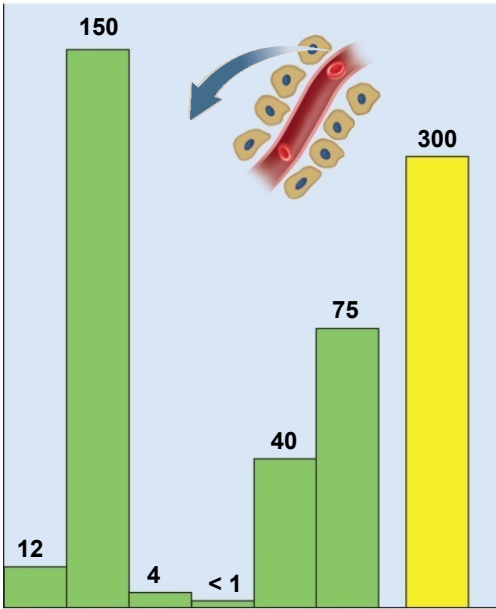


Fig. 24.7

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(a) Blood plasma



(b) Intracellular fluid

Fig. 24.8

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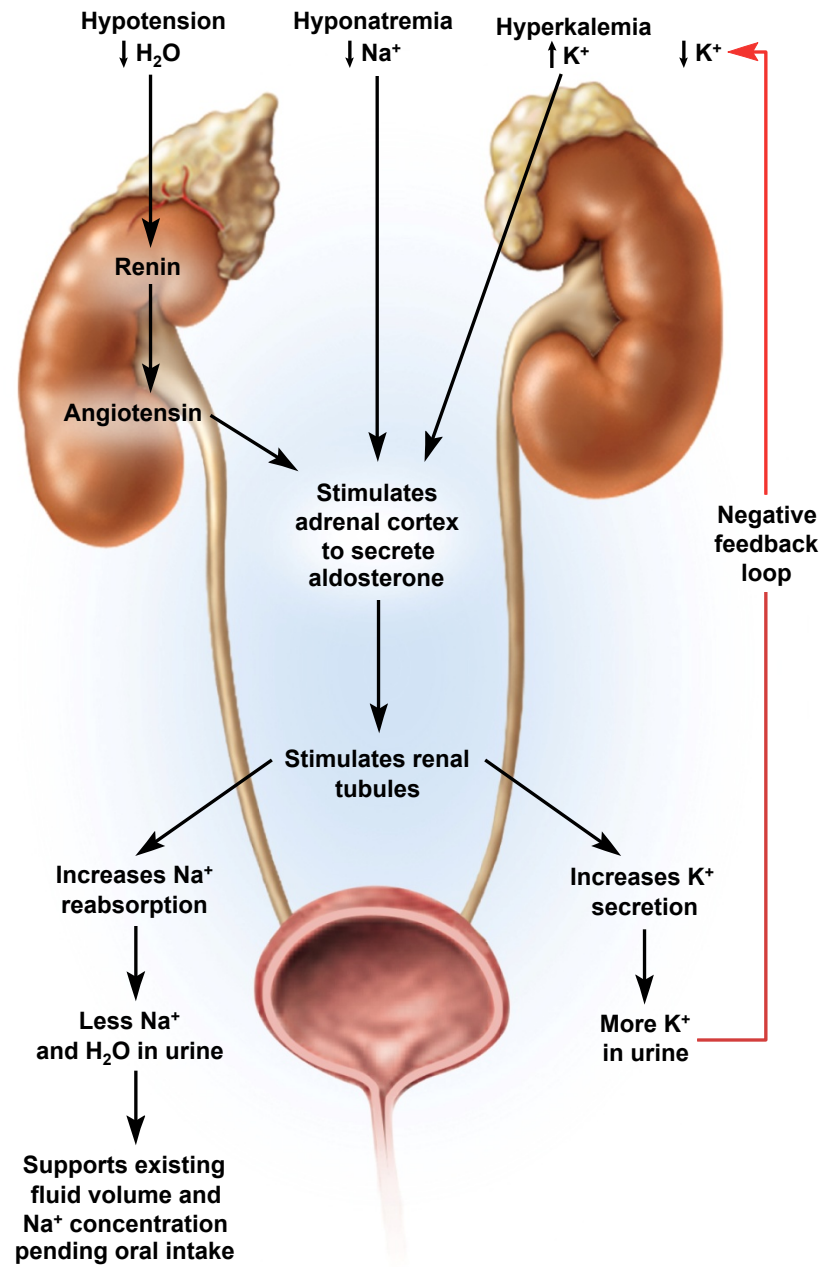


Fig. 24.9

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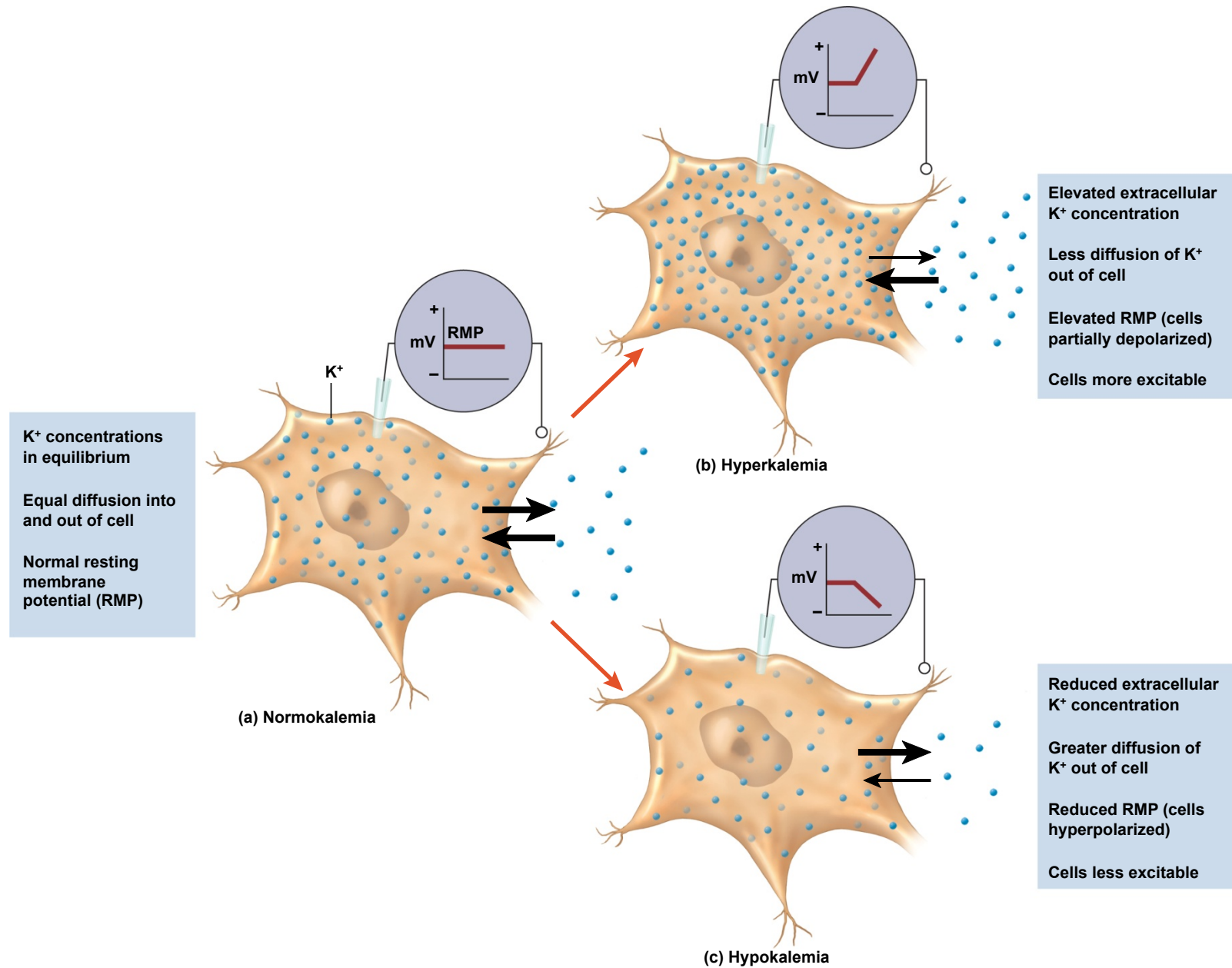


Fig. 24.10

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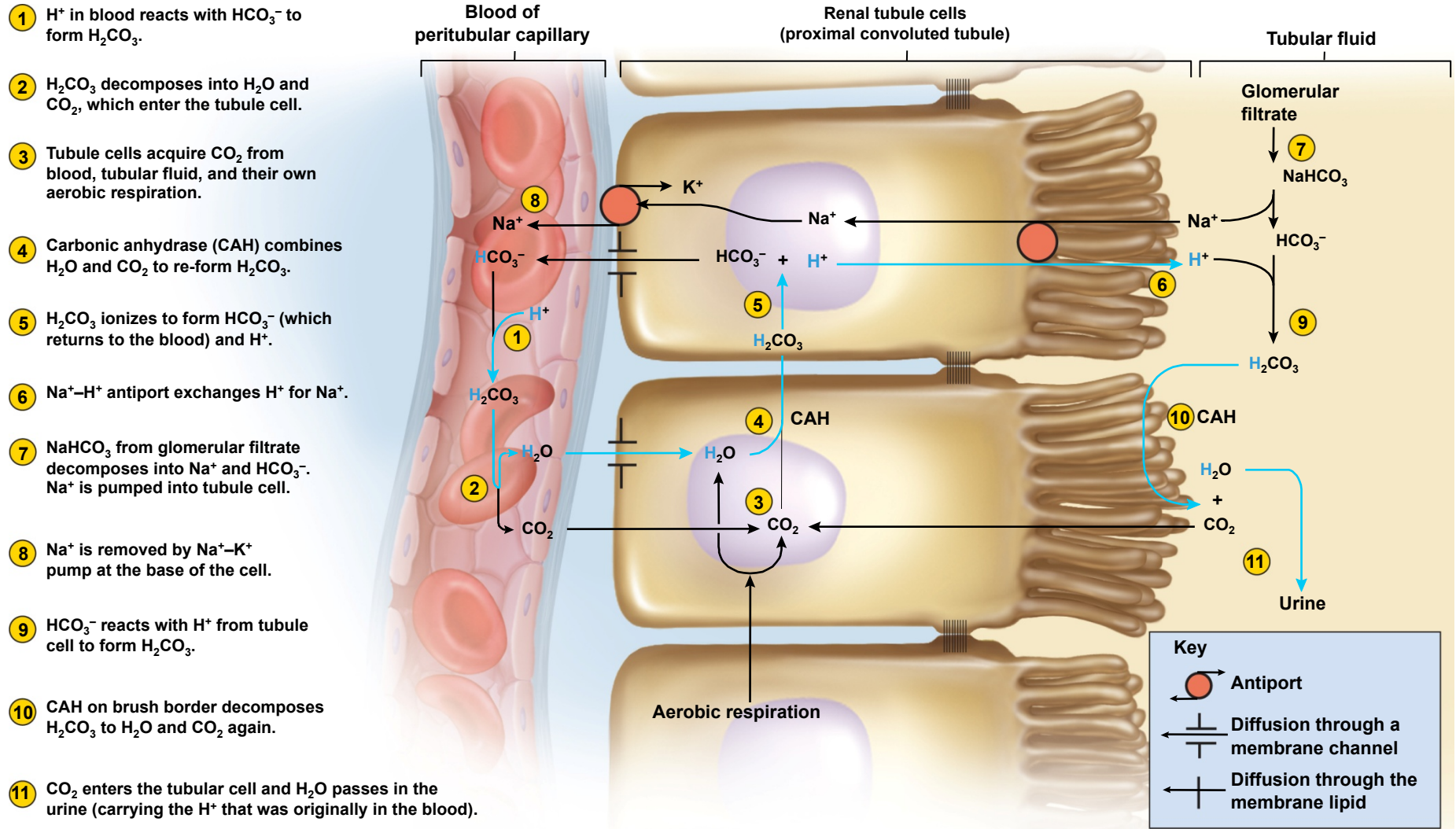


Fig. 24.11

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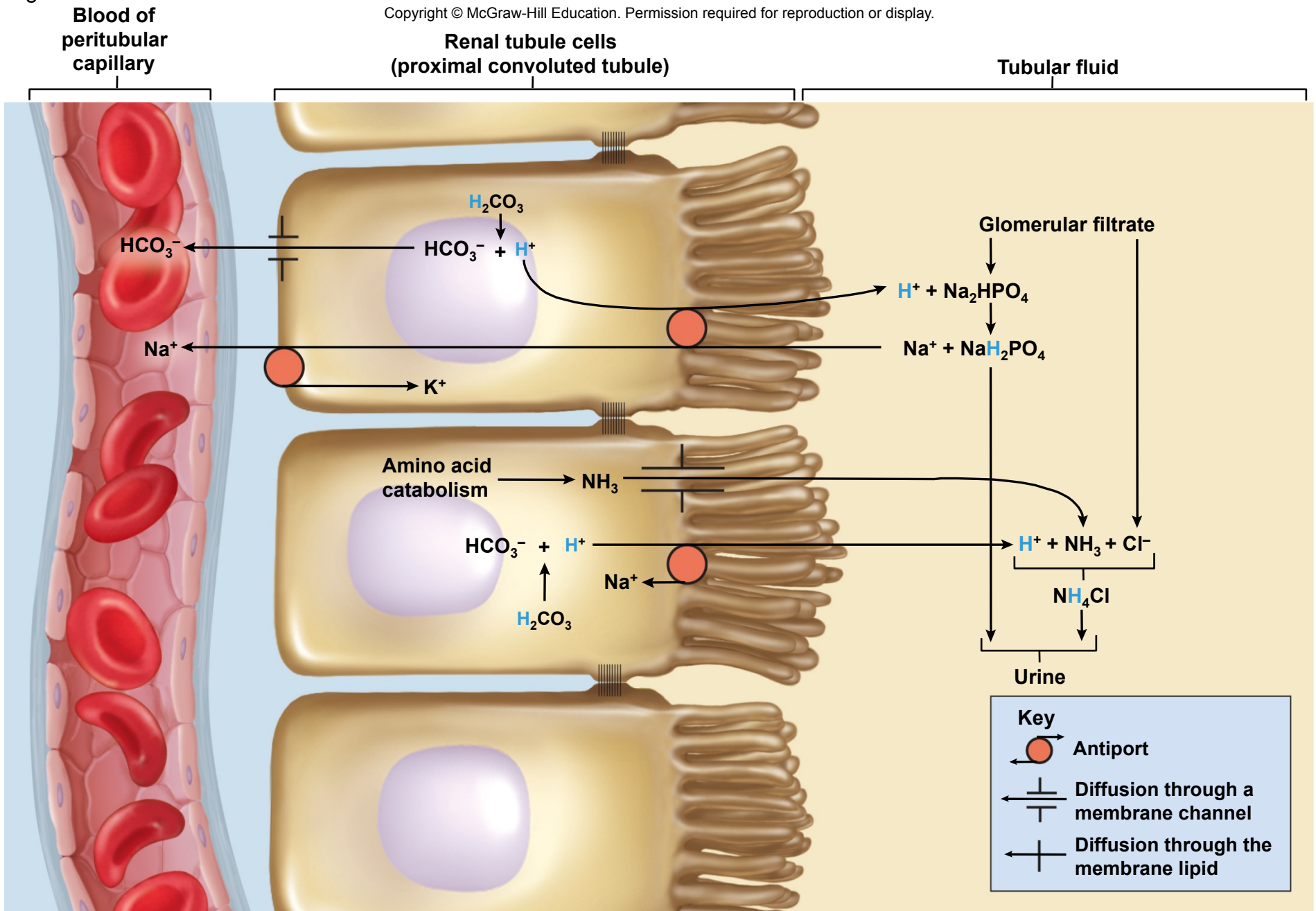


Fig. 24.12

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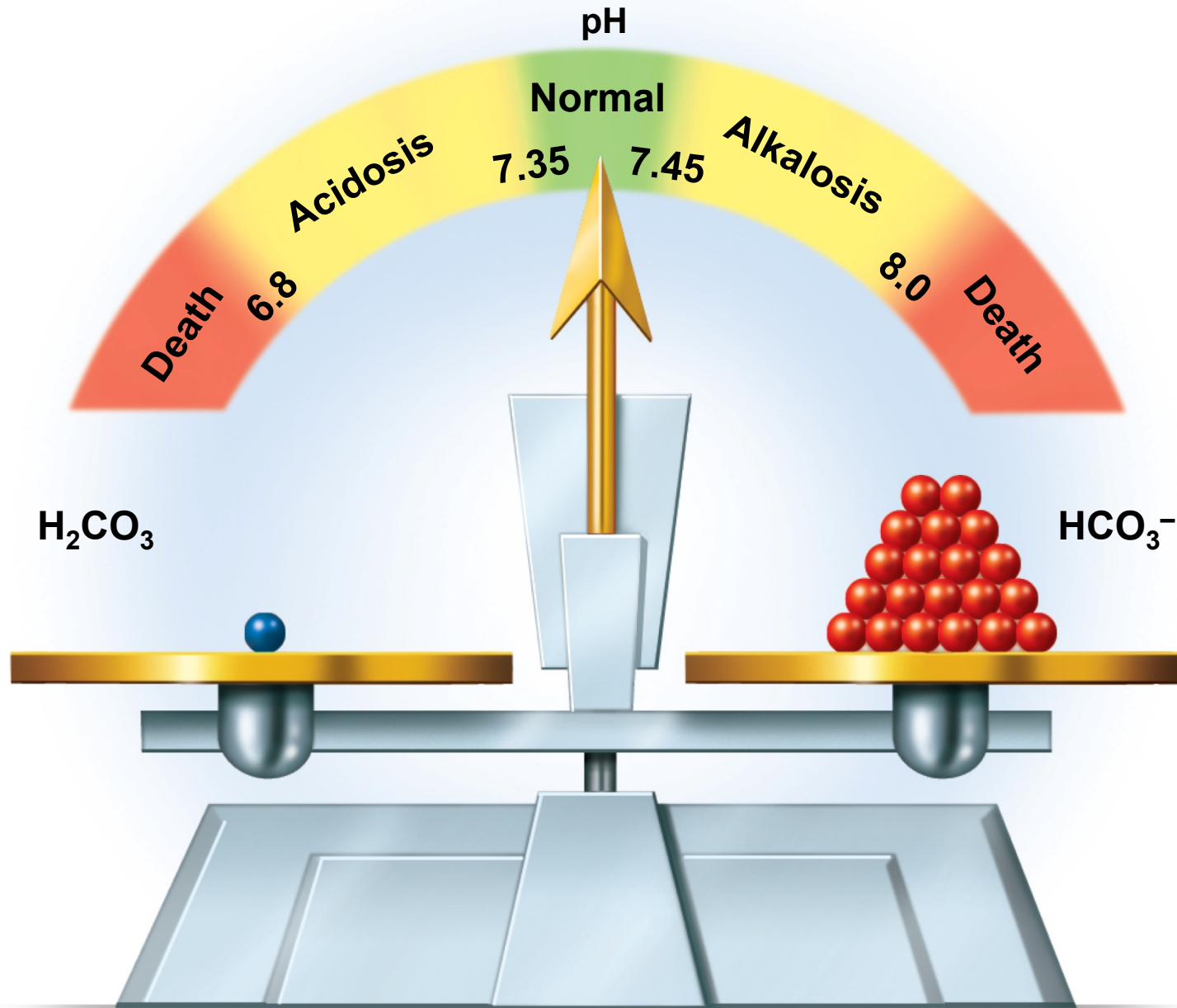
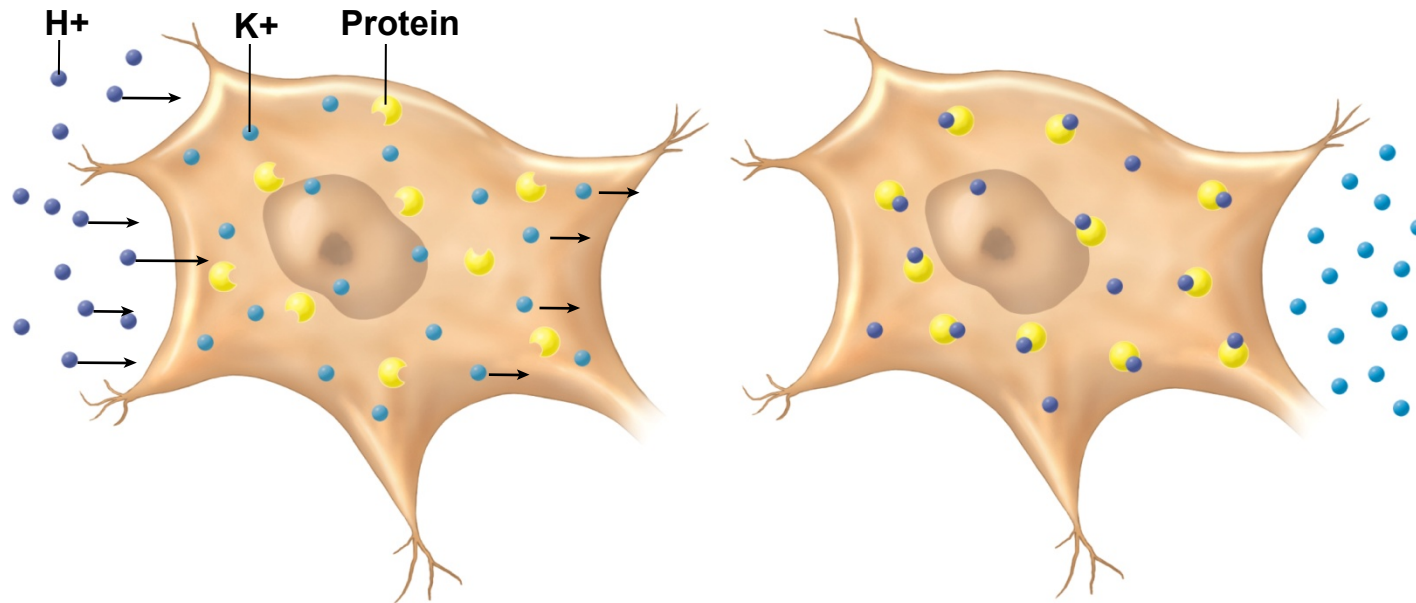
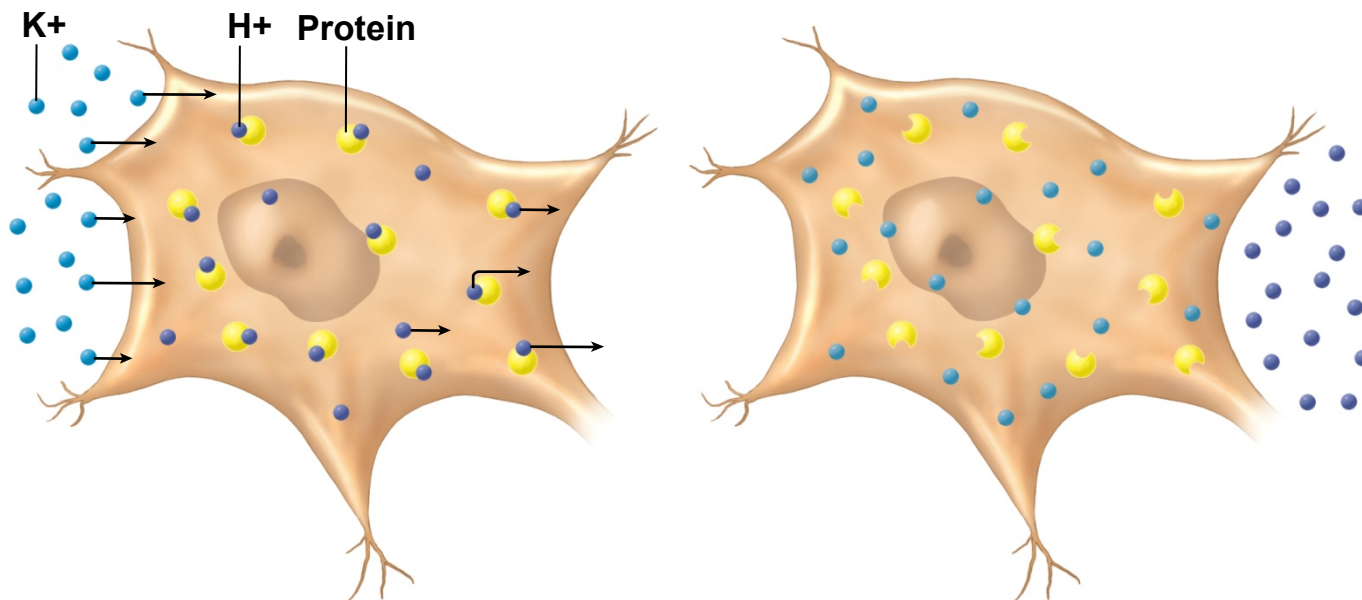


Fig. 24.13

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(a) Acidosis → leading to → Hyperkalemia



(b) Alkalosis → leading to → Hypokalemia

Table 24.2

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TABLE 24.2 Some Causes of Acidosis and Alkalosis		
	Acidosis	Alkalosis
<i>Respiratory</i>	Hypoventilation, apnea, or respiratory arrest; asthma; emphysema; cystic fibrosis; chronic bronchitis; narcotic overdose	Hyperventilation due to pain or emotions such as anxiety; oxygen deficiency (as at high elevation)
<i>Metabolic</i>	Excess production of organic acids as in diabetes mellitus and starvation; long-term anaerobic fermentation; hyperkalemia; chronic diarrhea; excessive alcohol consumption; drugs such as aspirin and laxatives	Rare but can result from chronic vomiting; overuse of bicarbonates (antacids); aldosterone hypersecretion