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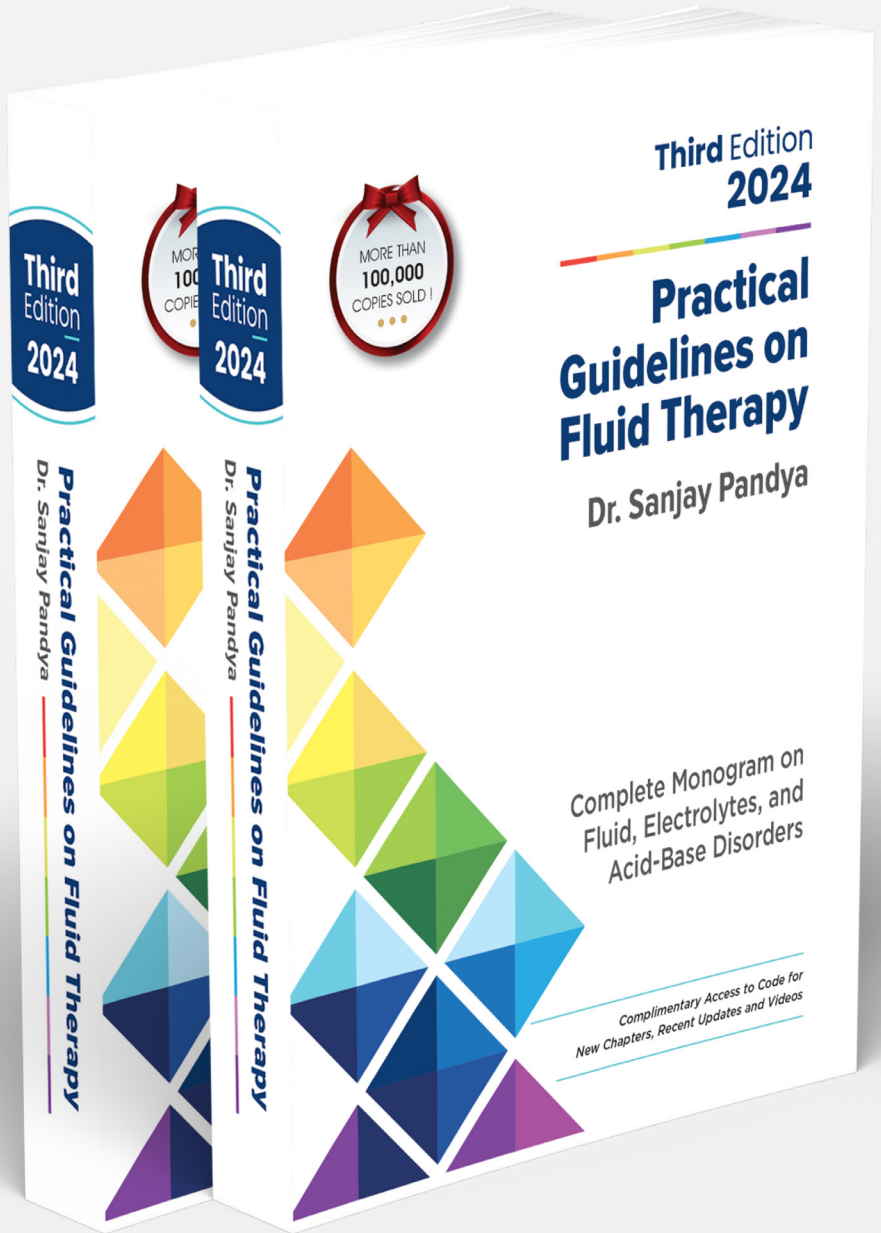
Chapter 21:
Hypernatremia



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21 Hypernatremia

Hypernatremia is an electrolyte disorder defined as an increase in plasma sodium concentration greater than 145 mEq/L, always results in hypertonicity (hyperosmolality), and usually occurs due to lack of water, loss of water, or primary sodium gain [1, 2].

Hypernatremia is a less frequent disorder (about 1%–3% of all hospitalized patients and 9% in critically ill patients) but carries significantly higher mortality (about 40–60%) [3–5].

HYPERNATREMIA IS USUALLY DUE TO WATER DEFICIT AND NOT SODIUM OVERLOAD.

Normal thirst is the most potent mechanism that effectively prevents hypernatremia. So, hypernatremia usually does not occur in healthy adults who can respond to thirst unless there is non-availability of water, restricted water intake, impaired thirst, or the patient cannot drink the water due to a comatose-confused state. Therefore, hypernatremia is seen chiefly in very young, very old, very sick, bed-ridden, or debilitated patients. A pure water deficit leading to hypernatremia is called dehydration.

ETIOLOGY

Common causes of hypernatremia classified based on volume status, water loss or salt gain, urinary sodium, and underlying etiologies are summarized in Table 21.1.

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