

# Hyponatremia

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Following are differential diagnoses for patients presented with decreased blood sodium level.

## Normal osmolality (290-310 mOsm/kg)

- ▶ Pseudohyponatremia (eg, hypertriglyceridemia, hyperproteinemia)

## Low osmolality (<290 mOsm/kg)

- ▶ Polyuric renal failure
- ▶ GI fluid loss (eg, vomiting, diarrhea, regurgitation, severe ileus with “pooled” insensible fluid losses)
- ▶ Hookworm infection
- ▶ Severe dietary sodium restriction
- ▶ Iatrogenic (eg, hypotonic fluids, diuretics)
- ▶ Third-space loss
  - Pancreatitis
  - Peritonitis
  - Pleural or peritoneal effusion
  - Uroabdomen
- ▶ Hypoadrenocorticism
- ▶ Edematous disorders
  - Congestive heart failure
  - Liver failure
  - Nephrotic syndrome
- ▶ Syndrome of inappropriate antidiuretic hormone secretion
- ▶ Psychogenic polydipsia

## High osmolality (>310 mOsm/kg)

- ▶ Diabetes mellitus (ie, secondary to hyperglycemia)
- ▶ Iatrogenic (ie, mannitol administration) ■■■

## Suggested Reading

DiBartola SP, ed. *Fluid, Electrolyte, and Acid-Base Disorders in Small Animal Practice*. 4th ed. Saunders Elsevier; 2012.