



Differential Diagnosis of Hyponatremia

Extracellular fluid volume	Urinary [Na ⁺]*	Presumptive diagnosis
Hypovolemic	Low	Depletion (non-renal): GI, cutaneous, or blood ECF loss
Hypovolemic	High	Depletion (renal): diuretics, mineralocorticoid insufficiency (Addison's disease), salt-losing nephropathy, cerebral salt wasting
Normal	Low	Depletion (non-renal): any cause and hypotonic fluid replacement Dilution (proximal): hypothyroidism, early decreased effective arterial blood volume Dilution (distal): SIADH and fluid restriction
Normal	High	Dilution (distal): SIADH, glucocorticoid insufficiency Depletion (renal): any cause and hypotonic fluid replacement (especially diuretic treatment)
Hypervolemic	Low	Dilution (proximal): decreased, effective arterial blood volume (HF, cirrhosis, nephrosis)
Hypervolemic	High	Dilution (proximal): any cause and diuretics or alleviation of underlying disease, renal failure

HF = congestive heart failure; ECF = extracellular fluid; GI = gastrointestinal; SIADH = syndrome of inappropriate secretion of antidiuretic hormone.

* Urine [Na⁺] values <30 mEq/L are generally considered to be low and values ≥30 mEq/d to be high, based on studies of hyponatremic patient's responses to infusions of isotonic saline.