

Hypokalemia

Julie Allen, BVMS, MS, MRCVS, DACVIM (SAIM), DACVP

FOR MORE

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- Hyperkalemia
- Eosinophilia
- Basophilia
- Increased & Decreased Blood Urea Nitrogen
- Increased & Decreased Creatinine
- Neutropenia
- Panting
- Hypercholesterolemia
- Hypocholesterolemia
- Hypoalbuminemia
- Increased Total Thyroxine
- Decreased Total Thyroxine
- Hypoglycemia
- Epistaxis
- Regurgitation

Following are differential diagnoses, listed in order of likelihood, for patients presented with hypokalemia.

- Increased loss
 - Through the kidney (most common)
 - Chronic kidney disease
 - Loop and thiazide diuretics
 - Postobstructive diuresis (cats affected more than dogs)
 - Renal tubular disease
 - Osmotic diuresis
 - Acute metabolic acidosis secondary to lactic acid or ketone excretion
 - Primary metabolic alkalosis
 - Diuresis secondary to hyperadrenocorticism; some patients with adrenocortical tumors also produce excess aldosterone
 - High dietary sodium intake
 - Primary hyperaldosteronism, usually due to an adrenal tumor or hyperplasia
 - Excessive mineralocorticoid administration (eg, overdose of desoxycorticosterone pivalate or fludrocortisone)
 - Administration of certain drugs (eg, penicillins, carbonic anhydrase inhibitors, amphotericin B)
 - Through the GI tract
 - Vomiting
 - Chronic diarrhea
 - Ileus
 - Third-spacing (eg, loss in peritoneal fluid)
- Transcellular shifts
 - Insulin release or administration
 - Increased endogenous catecholamines (eg, pheochromocytoma) or epinephrine administration
 - Primary respiratory or metabolic alkalosis
 - Hyperthyroidism, likely due to transcellular shifts
 - Endotoxemia
 - Refeeding syndrome
 - Hypomagnesemia
 - Treatment with or toxicosis from β_2 agonists (eg, albuterol, terbutaline)
 - Hyperinsulinemia secondary to xylitol toxicosis, which stimulates the activity of the Na⁺/K⁺-ATPase pump, which catalyzes transfer of potassium in the cells
 - Hypothermia
 - Periodic hypokalemic polymyopathy (Burmese cats)
- Decreased intake
 - Administration of low-/no-potassium intravenous fluids
 - Low-potassium diets, often acidifying diets
 - Severe anorexia (usually a confounding factor and not a primary cause)
 - Ingestion of clay cat litter containing bentonite, which binds potassium in the GI tract
- Pseudohypokalemia; occurs secondary to lipemia and marked hyperglobulinemia*

*Only when measured by indirect potentiometry, the method used by most chemistry analyzers; blood gas analyzers using direct potentiometry are unaffected.

See page 29 for references.