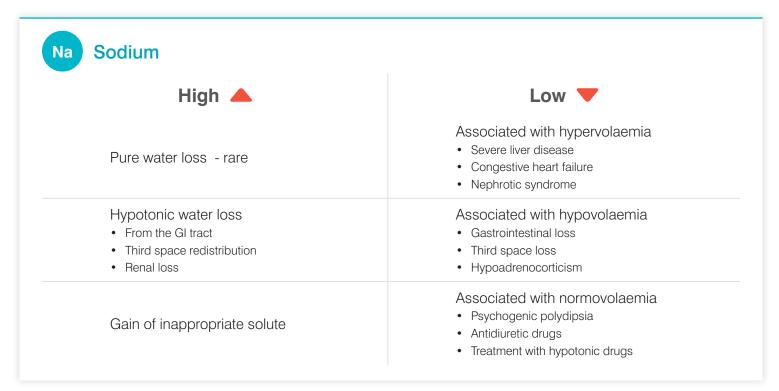
Electrolyte disturbances

an overview

Content is based on a short lecture by **Professor Stephen DiBartola**, DVM Diplomate ACVIM (Internal Medicine), Ohio State University. Watch the full video with Prof. DiBartola on YouTube.

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High 📥	Low
Increased intake: very rare	Decreased intake: very rare
Decreased renal excretion	Increased loss
Urethral obstruction	 GI loss from vomit and/or diarrhoea
 Hypoadrenocorticism 	 Urinary loss
Certain drugs	Hyperaldosteronism
Translocation from intracellular to	Translocation from extracellular to
exctracellular space	intracellular space
Insulin deficiency	 Alkalaemia
Acute tumour lysis	 Insulin and glucose disturbances



Notice normal Na:Cl ratio is 1,3:1

High 📥	Low
Primary loss: Diarrhoea	Primary loss: Vomit of gastric content
Administration of large amounts of 0,9% saline	Certain diuretics such as furosemide
Chronic respiratory alkalosis Renal compensation	Chronic respiratory acidosis Renal compensation

Ca	Calcium

Phosphorus

High 📤	Low 🔻
Dehydration	Hyperalbuminaemia
Secondary to malignancies	Renal failure
Hypoadrenocorticism	Ethylene glycol poisoning
Renal failure	Eclampsia
Hypervitaminosis D	Acute pancreatitis
Primary hyperparathyroidism	Primary hypoparathyroidism

High 📤	Low 🔻
Translocation from intracellular to extracellular space • Acute tumour lysis	Translocation from extracellular to intracellular space • Treatment of diabetic ketoacidosis
Decreased renal secretion Acute and chronic renal failure Uroabdomen Urethral obstruction, hypoparathyroidism	Decreased intestinal absorption Malabsorptive disordersVitamin D deficiencyTreatment with phosphate binders
	Decreased renal reabsorption



• Primary hyperparathyroidism

• Tubular disorders such as Fanconi's syndrome

Increased intake: Vitamin D intoxication

Young, growing animal