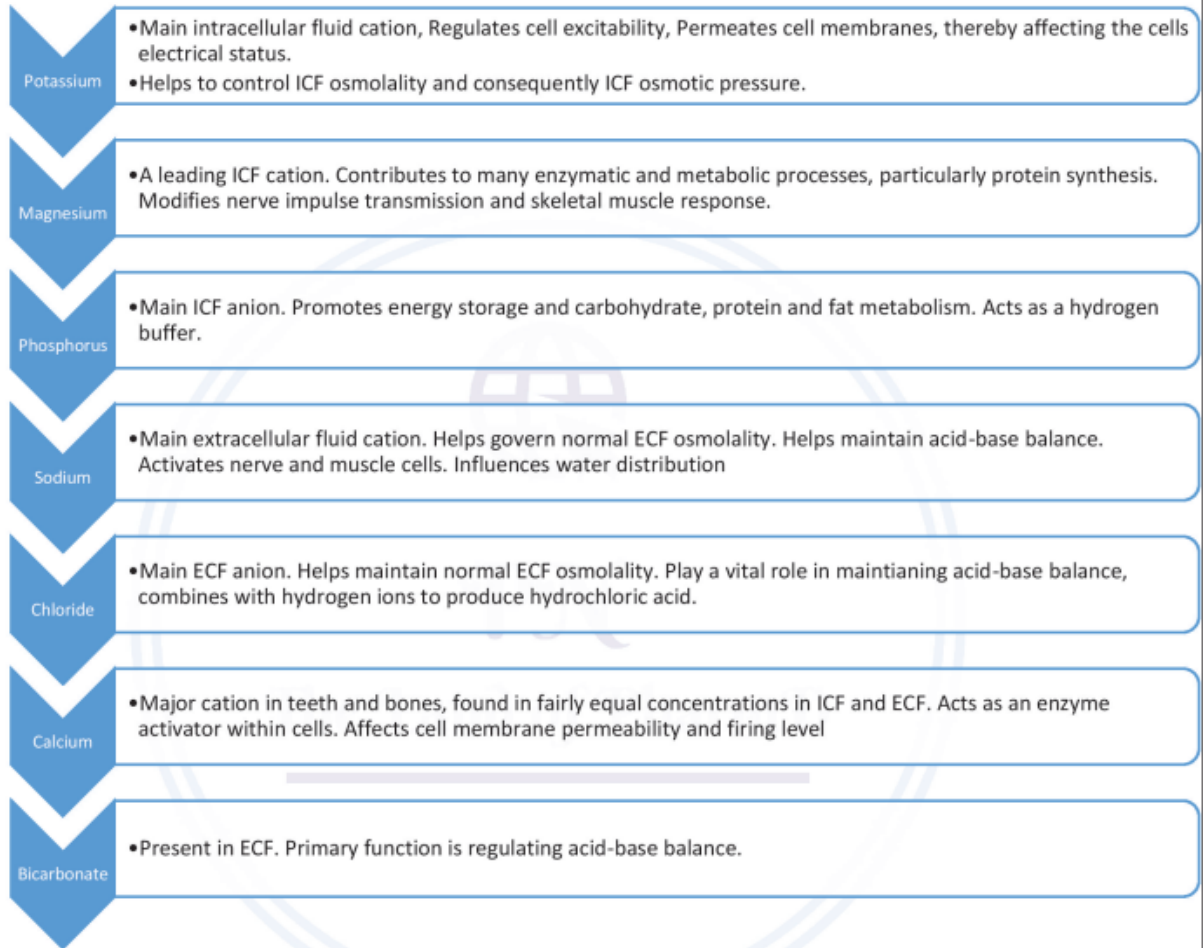


FLUID AND ELECTROLYTE BALANCE:

Electrolytes help regulate water distribution, govern acid-base balance, and transmit nerve impulses. They also contribute to energy generation and blood clotting.



Electrolytes	Interpretation
Calcium (4.5 -5.5 mEq/L)	Hypocalcemia- Hypoparathyroidism, Infusion of citrated blood, acute pancreatitis, Hyperphosphatemia, Inadequate dietary intake of Vitamin D Hypercalcemia – Malignant neoplasm, Metastatic bone cancer, Hyperparathyroidism, Immobilization and loss of bone mineral.
Potassium (3.5-5 mEq/L)	Hypokalemia- GI losses from diarrhea, laxative abuse, use of certain antibiotics including penicillin G. Hyperkalemia – Decreased renal excretion related to oliguric renal failure, potassium-sparing diuretic use, or adrenal steroid deficiency, Acidosis, Tissue damage.

Magnesium (1.5 – 2.5	Hypomagnesemia- Alcoholism, protein-calorie malnutrition, I.V therapy without magnesium replacement, Overdose of Vitamin D or calcium, Pancreatitis,
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mEq/L)	Ketoacidosis Hypermagnesemia- Renal failure, excessive antacid use, adrenal insufficiency or diuretic abuse.
Sodium (136 – 145 mEq/L)	Hyponatremia- Excessive water gain caused by inappropriate administration of IV solutions, Renal failure, cirrhosis, Excessive sodium loss due to GI losses. Hypernatremia – Sodium gain that exceeds water gain related to salt intoxication, use of diuretics, water loss that exceeds sodium loss related to profuse sweating, diarrhea.
Phosphorus (2.5-4.5 mg/dl)	Hypophosphatemia – Glucose administration or insulin release, nutritional recovery syndrome, malabsorption syndromes, vomiting, diuretic therapy. Hyperphosphatemia- Renal disease, Hypoparathyroidism or hyperthyroidism, excessive vitamin D intake, Excessive phosphate intake



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