Phosphorus

- Works with calcium to build strong bones and teeth.
- Important for energy transfer through ATP (adenosine triphosphate).

Phosphorus functions as a cation in extracellular fluid. Approximately 85% of the body's total phosphorus is stored in bones and teeth as hydroxyapatite, while the remaining 15% is found in soft tissues. Phosphate is essential for various metabolic pathways, serving as a key component in numerous metabolic intermediates, particularly ATP and nucleotides. The regulation of phosphate occurs concurrently with calcium through the actions of Vitamin D3, parathyroid hormone (PTH), and calcitonin. The kidneys play a vital role in the excretion of phosphorus. Phosphate imbalances typically arise from one of three main factors: inadequate dietary intake, gastrointestinal disorders, or impaired renal excretion.[1]

References

1. Berkelhammer C, Bear RA. A clinical approach to common electrolyte problems: 3. Hypophosphatemia. Can Med Assoc J. 1984 Jan 01;130(1):17-23.