

# **KOS Diagnostic Lab**

(A Unit of KOS Healthcare)



Dr. Vinay Chopra
MD (Pathology & Microbiology)
Chairman & Consultant Pathologist

Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Mrs. FARHA

**AGE/ GENDER** : 50 YRS/FEMALE **PATIENT ID** : 1624635

COLLECTED BY : REG. NO./LAB NO. : 012409250002

 REFERRED BY
 : 25/Sep/2024 07:26 AM

 BARCODE NO.
 : 01517650
 COLLECTION DATE
 : 25/Sep/2024 07:29 AM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 25/Sep/2024 10:36 AM

CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit Biological Reference interval

# CLINICAL CHEMISTRY/BIOCHEMISTRY PHOSPHOROUS

PHOSPHOROUS: SERUM 3.89 mg/dL 2.30 - 4.70

by PHOSPHOMOLYBDATE, SPECTROPHOTOMETRY

#### <u> NTERPREATION:-</u>

- 1. Eighty-eight percent of the phosphorus contained in the body is localized in bone in the form of hydroxyapatite. The remainder is involved in intermediary carbohydrate metabolism and in physiologically important substances such as phospholipids, nucleic acids, and adenosine triphosphate (ATP).
- 2.Phosphorus occurs in blood in the form of inorganic phosphate and organically bound phosphoric acid. The small amount of extracellular organic phosphorus is found exclusively in the form of phospholipids.
- 3. Serum phosphate concentrations are dependent on meals and variation in the secretion of hormones such as parathyroid hormone (PTH) and may vary widely.

### DECREASED (HYPOPHOSPHATEMIA):-

- 1. Shift of phosphate from extracellular to intracellular.
- 2. Renal phosphate wasting.
- 3.Loss from the gastrointestinal tract.
- 4.Loss from intracellular stores.

#### INCREASED (HYPERPHOPHATEMIA):-

- 1. Inability of the kidneys to excrete phosphate.
- 2. Increased intake or a shift of phosphate from the tissues into the extracellular fluid.

#### SIGNIFICANCE:

- 1. Phosphate levels may be used in the diagnosis and management of a variety of disorders including bone, parathyroid and renal disease.
- 2. Hypophosphatemia is relatively common in hospitalized patients. Levels less than 1.5 mg/dL may result in muscle weakness, hemolysis of red cells, coma, and bone deformity and impaired bone growth.
- 3. The most acute problem associated with rapid elevations of serum phosphate levels is hypocalcemia with tetany, seizures, and hypotension. Soft tissue calcification is also an important long-term effect of high phosphorus levels.
- 4.Phosphorus levels less than 1.0 mg/dL are potentially life-threatening and are considered a critical value.

**NOTE**: Phosphorus has a very strong biphasic circadian rhythm. Values are lowest in the morning, peak first in the late afternoon and peak again in the late evening. The second peak is quite elevated and results may be outside the reference range



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 : 25/Sep/2024 11:42 AM

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#### **ELECTROLYTES COMPLETE PROFILE**

SODIUM: SERUM  by ISE (ION SELECTIVE ELECTRODE)	140.6	mmol/L	135.0 - 150.0
POTASSIUM: SERUM  by ISE (ION SELECTIVE ELECTRODE)	3.97	mmol/L	3.50 - 5.00
CHLORIDE: SERUM  by ISE (ION SELECTIVE ELECTRODE)	105.45	mmol/L	90.0 - 110.0

#### **INTERPRETATION:-**

#### SODIUM:-

Sodium is the major cation of extra-cellular fluid. Its primary function in the body is to chemically maintain osmotic pressure & acid base balance & to transmit nerve impulse.

### HYPONATREMIA (LOW SODIUM LEVEL) CAUSES:-

- 1. Low sodium intake.
- 2. Sodium loss due to diarrhea & vomiting with adequate water and iadequate salt replacement.
- 3. Diuretics abuses.
- 4. Salt loosing nephropathy.
- 5. Metabolic acidosis.
- 6. Adrenocortical issuficiency.
- 7. Hepatic failure.

#### HYPERNATREMIA (INCREASED SODIUM LEVEL) CAUSES:-

- 1. Hyperapnea (Prolonged)
- 2. Diabetes insipidus
- 3. Diabetic acidosis
- 4. Cushings syndrome
- 5.Dehydration

#### POTASSIUM:-

Potassium is the major cation in the intracellular fluid. 90% of potassium is concentrated within the cells. When cells are damaged, potassium is released in the blood.

#### HYPOKALEMIA (LOW POTASSIUM LEVELS):-

- 1. Diarrhoea, vomiting & malabsorption.
- 2. Severe Burns.
- 3. Increased Secretions of Aldosterone

#### HYPERKALEMIA (INCREASED POTASSIUM LEVELS):-

- 1.Oliguria
- 2.Renal failure or Shock
- 3. Respiratory acidosis



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4.Hemolysis of blood

CLIENT CODE.

End Of Report \*



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