

**REPORT**

Name	: Mr. NARASIMHA CHARY	Sample ID	: A0012659
Age/Gender	: 41 Years/Male	Reg. No	: 0312401060011
Referred by	: Dr. G ALEKA SWAMY	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 06-Jan-2024 10: 18 AM
Primary Sample	: Whole Blood	Received On	: 06-Jan-2024 12: 49 PM
Sample Tested In	: Serum	Reported On	: 06-Jan-2024 03: 43 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
Zinc - Serum	117	µg/dL	80-120	Bromo-Paps

**Interpretation :**

Zinc deficiency - Symptoms include depressed growth,teratogenesis, poor carbohydrate metabolism, altered Cognition, poor immune function, alopecia,impotence,eye and skin lesions,and diarrhoea. Zinc is vital trace element required for normal healing of wounds and normal immune function. Zinc levels lowered with systemic infections & inflammatory disorders,oral contraceptives,and pregnancy.

Zinc excess - is not of major clinical concern, however elevated zinc concentrations may interfere with copper absorption. Zinc exposure can occur from-Occupational exposure related to mining and metallurgic industries. Use of commercial products containing zinc(e.g. Zinc containing shampoos,Multivitamins).

- Whole Blood / Serum metal testing is used for the detection of recent exposure or poisoning with the toxic element. However, blood metal levels in healthy subjects can vary considerably with exposure to the particular metal present in the diet and in the environment.
- It should be noted that low or within acceptable levels in blood / Serum do not always exclude that the element is uninvolved in contributing to the patient's symptoms because certain elements may be sequestered in tissues.
- Lower metal levels in patients on follow-up imply that the toxic element exposure is reduced in the patient's immediate environment or that the body has efficiently eliminated the toxic element.



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**DR.VAISHNAVI**  
**MD BIOCHEMISTRY**

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**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
Calcium	10.0	mg/dL	8.5-10.1	o-cresolphthalein complexone (OCPC)

**Comments:**

- Calcium in the body is found mainly in the bones (approximately 99%). In serum, Calcium exists in a free ionised form and in bound form (with Albumin). Hence, a decrease in Albumin causes lower Calcium levels and vice-versa.
- Calcium levels in serum depend on the Parathyroid Hormone.
- Increased Calcium levels are found in Bone tumors, Hyperparathyroidism. decreased levels are found in Hypoparathyroidism, renal failure, Rickets.

<b>Magnesium</b>	2.4	mg/dL	1.8-2.4	Methylthymol blue (MTB)
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**Interpretation:**

About one half of the body's magnesium is found in bone. The other half is found inside cells of body tissues and organs.

Magnesium is needed for many chemical processes in the body. It helps maintain normal muscle and nerve function, and keeps the bones strong. Magnesium is also needed for the heart to function normally and to help regulate blood pressure. Magnesium also helps the body control blood sugar level and helps support the body's defense (immune) system.

**A high magnesium level may be due to:**

- Diabetic ketoacidosis, a life-threatening problem in people with diabetes
- .Loss of kidney function (acute or chronic renal failure)

**A low magnesium level may be due to:**

- Alcohol use disorder
- Hyperaldosteronism (adrenal gland produces too much of the hormone aldosterone)
- Hypercalcemia (high blood calcium level)
- Long-term (chronic) diarrhea



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**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
Phosphorus(PO4)	3.6	mg/dL	2.5-4.9	Phosphomolybdate UV

**Interpretation:**

- This will give an idea of renal and bone diseases.

**Increased Phosphorus Or Hyperphosphatemia:**

- Renal diseases with increased blood urea ( BUN) and creatinine.
- Hypoparathyroidism with raised phosphate and decreased calcium. But renal function will be normal.
- Liver diseases and cirrhosis.
- Acromegaly.
- Increased dietary intake.
- Sarcoidosis.
- Acidosis
- Hemolytic anemia.

**Decreased Level Of Phosphorus Or Hypophosphatemia:**

- Decreased intestinal absorption.
- Rickets ( Vit.D deficiency )
- Vomiting and severe diarrhea
- Severe malnutrition and malabsorption.
- Acute alcoholism.

**Electrolyte Profile-Serum**

Sodium	140	mmol/L	136-145	ISE Direct
Potassium	4.2	mmol/L	3.5-5.1	ISE Direct
Chloride	95	mmol/L	98-108	ISE Direct

**Clinical significance:**

- Prevents dehydration.
- Maintain the acid-base balance (body pH).
- Maintain the osmotic pressure.
- Body working normally.
- It regulates heart rhythm.
- Regulate muscle contractions.
- Help the brain function.
- Cells can generate energy.

**Note:** Separate serum or plasma from cells within 45 minutes of collection; avoid hemolysis.



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Correlate Clinically.

Result rechecked and verified for abnormal cases  
Laboratory is NABL Accredited