

Patient NAME		Report STATUS :	
DOB/Age/Gender		Barcode NO :	
Patient ID / UHID		Sample Type :	
Referred BY		Report Date :	
Sample Collected			

Test Description	Value(s)	Unit(s)	Reference Range
------------------	----------	---------	-----------------

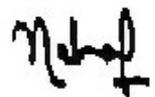
Vitamins & Mineral Screening Package

Hemoglobin (HB)

Hemoglobin <i>Cyanide free spectrophotometry</i>	12.8	g/dL	12.0 - 15.0
---	------	------	-------------

Interpretation:

- 1.Hemoglobin is a protein contained in red blood cells which is responsible for oxygen delivery to tissues.
- 2.To achieve adequate tissue oxygenation , a sufficient level is required.
- 3.Low levels indicate anemia and further testing may be required to evaluate the cause.
- 4.High levels may be seen in persons living at high altitude , dehydration, smoking and some blood disorders.



Dr. Neha Prabhakar
MBBS, MD(Pathology)

Patient NAME :	
DOB/Age/Gender :	Report STATUS
Patient ID / UHID :	Barcode NO
Referred BY :	Sample Type
Sample Collected :	Report Date

Test Description	Value(s)	Unit(s)	Reference Range
------------------	----------	---------	-----------------

Calcium

Calcium Serum <i>Arsenazo III</i>	9	mg/dL	8.4 - 10.2
--------------------------------------	---	-------	------------

Interpretaion:

Elevated calcium value are associated with hyperparathyroidism, multiple myeloma, neoplasms of bone and parathyroid & conditions of rapid demineralization, tetany & occasionally with nephrosis & pancreatitis. Severe nephritis & uremia may cause either elevated or lowered calcium values. Decreased values of calcium are noted in hypoparathyroidism, vitamin D deficiency, renal insufficiency, hypoproteinemia, malabsorption syndrome, severe pancreatitis with pancreatic necrosis and pseudo-hypoparathyroidism.



Dr. Poulami Sarkar
 MBBS,MD (Biochemistry)
 Consultant Biochemist
 NMC Certificate No. 24-005955

Patient NAME :		Report STATUS :	
DOB/Age/Gender :		Barcode NO :	
Patient ID / UHID :		Sample Type :	
Referred BY :		Report Date :	
Sample Collected :			

Test Description	Value(s)	Unit(s)	Reference Range
------------------	----------	---------	-----------------

Vitamin B12 / Cyanocobalamin

Vitamin - B12 CMIA	279	pg/mL	187 - 883
-----------------------	-----	-------	-----------

Interpretation:

Low Values are a sign of a vitamin B12 deficiency. People with this deficiency are likely to have or develop symptoms. Causes of vitamin B12 deficiency include: Not enough vitamin B12 in diet (rare except with a strict vegetarian diet), Diseases that cause malabsorption (for example, celiac disease and Crohn's disease), Lack of intrinsic factor, Above normal heat production (for example, with hyperthyroidism), Pregnancy. Increased vitamin B12 levels are uncommon. Usually excess vitamin B12 is removed in the urine. Conditions that can increase B12 levels include: Liver disease (such as cirrhosis or hepatitis), Myeloproliferative disorders (for example, polycythemia vera and chronic myelocytic leukemia). Vitamin B12: Low Levels can cause malabsorption, Lack of intrinsic factor, Above normal heat production (for example, with hyperthyroidism), Pregnancy. High Level Liver disease, Myeloproliferative disorders (for example, polycythemia vera and chronic myelocytic leukemia). 1. Out of 140 healthy Indian population, 91% of Vitamin B 12 concentrations was at lower level: 59.00 pg/ml and upper level: 700.00 pg/ml

Patients on Biotin supplement may have interference in some immunoassays. Ref: Arch Pathol Lab Med—Vol 141, November 2017. With individuals taking high dose Biotin (more than 5 mg per day) supplements, at least 8-hour wait time before blood draw is recommended



Dr. Poulami Sarkar
MBBS, MD (Biochemistry)
Consultant Biochemist
NMC Certificate No. 24-005955

Patient NAME :	Report STATUS :		
DOB/Age/Gender :	Barcode NO :		
Patient ID / UHID :	Sample Type :		
Referred BY :	Report Date :		
Sample Collected :			
Test Description	Value(s)	Unit(s)	Reference Range

Vitamin D 25 Hydroxy

Vitamin D 25 - Hydroxy <i>CMIA</i>	21.4 L*	ng/mL	Deficient <20 Insufficient 21 - 29 Sufficient 30 - 100
---------------------------------------	----------------	-------	--

Interpretation:

25-Hydroxy vitamin D represents the main body reservoir and transport form. Mild to moderate deficiency is associated with Osteoporosis / Secondary Hyperparathyroidism while severe deficiency causes Rickets in children and Osteomalacia in adults. Prevalence of Vitamin D deficiency is approximately >50% specially in the elderly. This assay is useful for diagnosis of vitamin D deficiency and Hypervitaminosis D. It is also used for differential diagnosis of causes of Rickets & Osteomalacia and for monitoring Vitamin D replacement therapy.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)



Dr. Poulami Sarkar
MBBS,MD (Biochemistry)
Consultant Biochemist
NMC Certificate No. 24-005955

Patient NAME :		Report STATUS :	
DOB/Age/Gender :		Barcode NO :	
Patient ID / UHID :		Sample Type :	
Referred BY :		Report Date :	
Sample Collected :			

Test Description	Value(s)	Unit(s)	Reference Range
------------------	----------	---------	-----------------

Magnesium

Magnesium, Serum <i>Enzymatic</i>	2	mg/dL	1.6 - 2.6
--------------------------------------	---	-------	-----------

Interpretation:

Age	Ref Range in mg/dL
Newborn, 2 to 4 days	1.5 to 2.2
5 months to 6 years	1.7 to 2.3
6 to 12 years	1.7 to 2.1
12 to 20 years	1.7 to 2.2
Adult	1.6 to 2.6

Moderate or severe magnesium deficiency is usually due to losses of magnesium from gastrointestinal tract or kidneys as in vomiting and diarrhoea in former and alcohol, diabetes mellitus (osmotic diuresis), loop diuretics (furosemide) and aminoglycoside antibiotics in latter. Symptomatic hypermagnesemia is almost always caused by excessive intake with concomitant renal failure, thereby decreasing the ability of the kidneys to excrete excess magnesium.

Phosphorus

Phosphorus <i>Phosphomolybdate</i>	3.2	mg/dL	2.3 - 4.7
---------------------------------------	-----	-------	-----------

Interpretation:

Increased levels are found in acute myocardial infarction (AMI), AMI with congestive heart failure, cirrhosis, obstructive jaundice, hemolytic anemia, various malignancies, skeletal muscle injury, electric and thermal burns.



Dr. Poulami Sarkar
MBBS, MD (Biochemistry)
Consultant Biochemist
NMC Certificate No. 24-005955

Patient NAME		Report STATUS	
DOB/Age/Gender		Barcode NO	
Patient ID / UHID		Sample Type	
Referred BY		Report Date	
Sample Collected			
Test Description	Value(s)	Unit(s)	Reference Range

Electrolytes (Na/K/Cl)

Sodium <i>ISE-Indirect</i>	139	mmol/L	136 - 145
Potassium <i>ISE-Indirect</i>	3.9	mmol/L	3.5 - 5.1
Chloride <i>Potentiometric</i>	103	mmol/L	98 - 107

Interpretation:

An electrolyte panel, which typically includes measurements of sodium (Na), potassium (K), and chloride (Cl) levels, is a common blood test that provides information about your body's electrolyte balance.

1. Sodium (Na):

- Sodium is crucial in maintaining fluid balance in your body and is essential for nerve function and muscle contraction.
- High sodium levels (hypernatremia) or low sodium levels (hyponatremia) can indicate various health conditions, including dehydration, kidney problems, or hormonal imbalances.

2. Potassium (K):

- Potassium is vital for proper muscle function, including the heart muscle and nerve function, as well as maintaining fluid and electrolyte balance.
- Abnormal potassium levels (hyperkalemia or hypokalemia) can indicate kidney dysfunction, dehydration, certain medications, or other underlying health issues.

3. Chloride (Cl):

- Chloride works closely with sodium and potassium to maintain fluid balance and proper pH levels in the body.
- Abnormal chloride levels may occur alongside imbalances in sodium and potassium and can indicate dehydration, kidney problems, respiratory issues, or metabolic disorders.

Healthcare providers typically order an electrolyte panel to evaluate and monitor electrolyte imbalances, diagnose certain medical conditions, assess kidney function, or monitor treatment effectiveness. It's usually part of routine blood testing, especially in cases of dehydration, kidney disease, heart conditions, or electrolyte disorders.



Dr. Poulami Sarkar
MBBS, MD (Biochemistry)
Consultant Biochemist
NMC Certificate No. 24-005955

Patient NAME	Report STATUS :
DOB/Age/Gender	Barcode NO :
Patient ID / UHID	Sample Type :
Referred BY	Report Date :
Sample Collected	

Test Description	Value(s)	Unit(s)	Reference Range
------------------	----------	---------	-----------------

Iron

Iron <i>Ferene</i>	75	µg/dL	50 - 170
-----------------------	----	-------	----------

Interpretation:
Iron is body's essential trace element used for differential diagnosis of anemias, diagnosis of hemochromatosis and hemosiderosis.

*** End Of Report ***



Dr. Poulami Sarkar
MBBS,MD (Biochemistry)
Consultant Biochemist
NMC Certificate No. 24-005955

Terms and Conditions of Reporting

1. The presented findings in the Reports are intended solely for informational and interpretational purposes by the referring physician or other qualified medical professionals possessing a comprehensive understanding of reporting units, reference ranges, and technological limitations. The laboratory shall not be held liable for any interpretation or misinterpretation of the results, nor for any consequential or incidental damages arising from such interpretation.
2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.
3. It is to be noted that variations in results may occur between different laboratories and over time, even for the same parameter for the same Customer. The assays are performed and conducted in accordance with standard procedures, and the reported outcomes are contingent on the specific individual assay methods and equipment(s) used, as well as the quality of the received specimen.
4. This report shall not be deemed valid or admissible for any medico-legal purposes.
5. The Customers assume full responsibility for apprising the Company of any factors that may impact the test finding. These factors, among others, includes dietary intake, alcohol, or medication / drug(s) consumption, or fasting. This list of factors is only representative and not exhaustive.

DISCLAIMER

This is a sample report provided for demonstration purposes only and does not represent an actual patient report. Test results, reference ranges, methodologies, instrumentation, and report formats may vary depending on the laboratory performing the test. The format and representation shown are indicative of reports generated by the National Reference Laboratory of Redcliffe Labs, Noida. This sample report should not be used for medical interpretation, diagnosis, or treatment decisions.