

**REPORT**

Name	: Mr. DHEERAJ	Sample ID	: A0094168
Age/Gender	: 24 Years/Male	Reg. No	: 0312403270040
Referred by	: Dr. B J RAJESH	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 27-Mar-2024 12:58 PM
Primary Sample	: Whole Blood	Received On	: 27-Mar-2024 03:18 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 27-Mar-2024 04:52 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

**HAEMATOLOGY**

**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
<b>COMPLETE BLOOD COUNT (CBC)</b>				
Haemoglobin (Hb)	15.6	g/dL	13-17	Cynmeth Method
RBC Count	<b>5.57</b>	10 <sup>12</sup> /L	4.5-5.5	Cell Impedance
Haematocrit (HCT)	48.1	%	40-50	Calculated
MCV	86	fl	81-101	Calculated
MCH	27.9	pg	27-32	Calculated
MCHC	<b>32.3</b>	g/dL	32.5-34.5	Calculated
RDW-CV	13.3	%	11.6-14.0	Calculated
Platelet Count (PLT)	305	10 <sup>9</sup> /L	150-410	Cell Impedance
Total WBC Count	6.9	10 <sup>9</sup> /L	4.0-10.0	Impedance
Neutrophils	70	%	40-70	Cell Impedance
Absolute Neutrophils Count	4.83	10 <sup>9</sup> /L	2.0-7.0	Impedance
Lymphocytes	21	%	20-40	Cell Impedance
Absolute Lymphocyte Count	1.45	10 <sup>9</sup> /L	1.0-3.0	Impedance
Monocytes	06	%	2-10	Microscopy
Absolute Monocyte Count	0.41	10 <sup>9</sup> /L	0.2-1.0	Calculated
Eosinophils	03	%	1-6	Microscopy
Absolute Eosinophils Count	0.21	10 <sup>9</sup> /L	0.02-0.5	Calculated
Basophils	0	%	1-2	Microscopy
Absolute Basophil ICount	0.00	10 <sup>9</sup> /L	0.0-0.3	Calculated
Atypical cells / Blasts	0	%		
<b>Morphology</b>				
WBC	Within normal limits.			
RBC	Normocytic normochromic blood picture			
Platelets	Adequate			Microscopy



Swannabala - M  
DR.SWARNA BALA  
MD PATHOLOGY

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Test Name	Results	Units	Ref. Range	Method
<b>Erythrocyte Sedimentation Rate (ESR)</b>	5		10 or less	Westergren method

**Comments :** ESR is an acute phase reactant which indicates presence and intensity of an inflammatory process. It is never diagnostic of a specific disease. It is used to monitor the course or response to treatment of certain diseases. Extremely high levels are found in cases of malignancy, hematologic diseases, collagen disorders and renal diseases.



Swannabala - M  
DR. SWARNA BALA  
MD PATHOLOGY

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Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 27-Mar-2024 12:58 PM
Primary Sample	: Whole Blood	Received On	: 27-Mar-2024 03:28 PM
Sample Tested In	: Plasma-NaF(F), Whole Blood EDT	Reported On	: 27-Mar-2024 06:26 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

**CLINICAL BIOCHEMISTRY**

**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
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**Glucose Fasting (F)** 79 mg/dL 70-100 GOD-POD

Interpretation of Plasma Glucose based on ADA guidelines 2018

Diagnosis	Fasting Plasma Glucose(mg/dL)	2hrs Plasma Glucose(mg/dL)	HbA1c(%)	RBS(mg/dL)
Prediabetes	100-125	140-199	5.7-6.4	NA
Diabetes	> = 126	> = 200	> = 6.5	>=200(with symptoms)

Reference: Diabetes care 2018:41(suppl.1):S13-S27

**Glycated Hemoglobin (HbA1c)** 5.5 % Non Diabetic:< 5.7  
Pre diabetic: 5.7-6.4  
Diabetic:>= 6.5 HPLC

**Mean Plasma Glucose** 111.15 mg/dL Calculated

Interpretation:

- Glycated hemoglobins (GHb), also called glycohemoglobins, are substances formed when glucose binds to hemoglobin, and occur in amounts proportional to the concentration of serum glucose. Since red blood cells survive an average of 120 days, the measurement of GHb provides an index of a person's average blood glucose concentration (glycemia) during the preceding 2-3 months. Normally, only 4% to 6% of hemoglobin is bound to glucose, while elevated glycohemoglobin levels are seen in diabetes and other hyperglycemic states
- Mean Plasma Glucose(MPG):This Is Mathematical Calculations Where Glycated Hb Can Be Correlated With Daily Mean Plasma Glucose Level

**Calcium** 9.3 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.



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**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
<b>25 - Hydroxy Vitamin D</b>	34.85	ng/mL	<20.0-Deficiency 20.0-<30.0-Insufficiency 30.0-100.0-Sufficiency >100.0-Potential Intoxication	CLIA

**Interpretation:**

1.Vitamin D helps your body absorb calcium and maintain strong bones throughout your entire life. Your body produces vitamin D when the sun's UV rays contact your skin. Other good sources of the vitamin include fish, eggs, and fortified dairy products. It's also available as a dietary supplement.

2.Vitamin D must go through several processes in your body before your body can use it. The first transformation occurs in the liver. Here, your body converts vitamin D to a chemical known as 25-hydroxyvitamin D, also called calcidiol.

3.The 25-hydroxy vitamin D test is the best way to monitor vitamin D levels. The amount of 25-hydroxyvitamin D in your blood is a good indication of how much vitamin D your body has. The test can determine if your vitamin D levels are too high or too low.

4.The test is also known as the 25-OH vitamin D test and the calcidiol 25-hydroxycholecalciferol test. It can be an important indicator of osteoporosis (bone weakness) and rickets (bone malformation).

**Those who are at high risk of having low levels of vitamin D include:**

- 1.people who don't get much exposure to the sun
- 2.older adults
- 3.people with obesity.
- 4.dietary deficiency

**Increased Levels:** Vitamin D Intoxication

Method : CLIA

<b>Vitamin- B12 (cyanocobalamin)</b>	521	pg/mL	211-911	CLIA
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**Interpretation:**

This test is most often done when other blood tests suggest a condition called megaloblastic anemia. Pernicious anemia is a form of megaloblastic anemia caused by poor vitamin B12 absorption. This can occur when the stomach makes less of the substance the body needs to properly absorb vitamin B12.

**Causes of vitamin B12 deficiency include:Diseases that cause malabsorption**

- 1.Lack of intrinsic factor, a protein that helps the intestine absorb vitamin B12
- 2.Above normal heat production (for example, with hyperthyroidism)

**An increased vitamin B12 level is uncommon in:**

- 1.Liver disease (such as cirrhosis or hepatitis)
- 2.Myeloproliferative disorders (for example, polycythemia vera and chronic myelogenous leukemia)

Result rechecked and verified for abnormal cases

\*\*\* End Of Report \*\*\*

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**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
<b>Lipid Profile</b>				
Cholesterol Total	147	mg/dL	< 200	CHOD-POD
Triglycerides-TGL	52	mg/dL	< 150	GPO-POD
Cholesterol-HDL	42	mg/dL	40-60	Direct
Cholesterol-LDL	94.6	mg/dL	< 100	Calculated
Cholesterol- VLDL	10.4	mg/dL	7-35	Calculated
Non HDL Cholesterol	105	mg/dL	< 130	Calculated
Cholesterol Total /HDL Ratio	3.5	%	0-4.0	Calculated
HDL / LDL Ratio	0.44			
LDL/HDL Ratio	2.25	%	0-3.5	Calculated

The National Cholesterol Education program's third Adult Treatment Panel (ATPIII) has issued its recommendations on evaluating and treating lipid disorders for primary and secondary.

NCEP Recommendations	Cholesterol Total in (mg/dL)	Triglycerides in (mg/dL)	HDL Cholesterol (mg/dL)	LDL Cholesterol in (mg/dL)	Non HDL Cholesterol in (mg/dL)
Optimal	Adult: < 200 Children: < 170	< 150	40-59	Adult:<100 Children: <110	<130
Above Optimal	-----	-----		100-129	130 - 159
Borderline High	Adult: 200-239 Children:171-199	150-199		Adult: 130-159 Children: 111-129	160 - 189
High	Adult:>or=240 Children:>or=200	200-499	≥ 60	Adult:160-189 Children:>or=130	190 - 219
Very High	-----	>or=500		Adult: >or=190 -----	>=220

**Note:** LDL cholesterol cannot be calculated if triglyceride is >400 mg/dL (Friedewald's formula). Calculated values not provided for LDL and VLDL



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**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
<b>Kidney Profile-KFT</b>				
Creatinine -Serum	0.78	mg/dL	0.70-1.30	Sarcosine oxidase
Urea-Serum	33.5	mg/dL	12.8-42.8	Glutamate dehydrogenase+Calculation
Blood Urea Nitrogen (BUN)	15.65	mg/dL	7.0-18.0	Calculated
BUN / Creatinine Ratio	20.06		6 - 22	
Uric Acid	5.7	mg/dL	3.5-7.2	Uricase
Sodium	141	mmol/L	136-145	ISE Direct
Potassium	4.2	mmol/L	3.5-5.1	ISE Direct
Chloride	103	mmol/L	98-108	ISE Direct
<b>Liver Function Test (LFT)</b>				
Bilirubin(Total)	0.3	mg/dL	0.3-1.2	Diazo
Bilirubin (Direct)	0.1	mg/dL	0.0 - 0.5	Diazo
Bilirubin (Indirect)	0.2	mg/dL	0.2-1.0	Calculated
Aspartate Aminotransferase (AST/SGOT)	24	U/L	5-40	IFCC with out (P-5-P)
Alanine Aminotransferase (ALT/SGPT)	22	U/L	0-55	IFCC with out (P-5-P)
Alkaline Phosphatase(ALP)	68	U/L	40-150	Kinetic PNPP-AMP
Gamma Glutamyl Transpeptidase (GGTP)	30	U/L	15-85	IFCC
Protein - Total	8.1	g/dL	6.4-8.2	Biuret
Albumin	4.7	g/dL	3.4-5.0	Bromocresol purple (BCP)
Globulin	3.4	g/dL	2.0-4.2	Calculated
A:G Ratio	1.38	%	0.8-2.0	Calculated
SGOT/SGPT Ratio	1.09			

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**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
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**Thyroid Profile-I(TFT)**

<b>T3 (Triiodothyronine)</b>	106.3	ng/dL	70-204	CLIA
<b>T4 (Thyroxine)</b>	8.9	µg/dL	3.2-12.6	CLIA
<b>TSH -Thyroid Stimulating Hormone</b>	2.60	µIU/mL	0.35-5.5	CLIA

**Pregnancy & Cord Blood**

T3 (Triiodothyronine):	T4 (Thyroxine)	TSH (Thyroid Stimulating Hormone)
First Trimester : 81-190 ng/dL	15 to 40 weeks:9.1-14.0 µg/dL	First Trimester : 0.24-2.99 µIU/mL
Second&Third Trimester :100-260 ng/dL		Second Trimester: 0.46-2.95 µIU/mL
		Third Trimester : 0.43-2.78 µIU/mL
Cord Blood: 30-70 ng/dL	Cord Blood: 7.4-13.0 µg/dL	Cord Blood: : 2.3-13.2 µIU/mL

**Interpretation:**

- Thyroid gland is a butterfly-shaped endocrine gland that is normally located in the lower front of the neck. The thyroid's job is to make thyroid hormones, which are secreted into the blood and then carried to every tissue in the body. Thyroid hormones help the body use energy, stay warm and keep the brain, heart, muscles, and other organs working as they should.
- Thyroid produces two major hormones: triiodothyronine (T3) and thyroxine (T4). If thyroid gland doesn't produce enough of these hormones, you may experience symptoms such as weight gain, lack of energy, and depression. This condition is called hypothyroidism.
- Thyroid gland produces too many hormones, you may experience weight loss, high levels of anxiety, tremors, and a sense of being on a high. This is called hyperthyroidism.
- TSH interacts with specific cell receptors on the thyroid cell surface and exerts two main actions. The first action is to stimulate cell reproduction and hypertrophy. Secondly, TSH stimulates the thyroid gland to synthesize and secrete T3 and T4.
- The ability to quantitate circulating levels of TSH is important in evaluating thyroid function. It is especially useful in the differential diagnosis of primary (thyroid) from secondary (pituitary) and tertiary (hypothalamus) hypothyroidism. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low.



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**HEALTH PROFILE A-3 PACKAGE**

Test Name	Results	Units	Ref. Range	Method
<b>Iron Profile-I</b>				
Iron(Fe)	103	µg/dL	65-175	Ferene
Total Iron Binding Capacity (TIBC)	410	µg/dL	250-450	Ferene
Transferrin	286.71	mg/dL	215-365	Calculated
Iron Saturation((% Transferrin Saturation)	25.12	%	20-50	Calculated
Unsaturated Iron Binding Capacity (UIBC)	307	µg/dL	110 - 370	FerroZine

**Interpretation:**

- Serum transferrin (and TIBC) high, serum iron low, saturation low. Usual causes of depleted iron stores include blood loss, inadequate dietary iron. RBCs in moderately severe iron deficiency are hypochromic and microcytic. Stainable marrow iron is absent. Serum ferritin decrease is the earliest indicator of iron deficiency if inflammation is absent.
- **Anemia of chronic disease:** Serum transferrin (and TIBC) low to normal, serum iron low, saturation low or normal. Transferrin decreases with many inflammatory diseases. With chronic disease there is a block in movement to and utilization of iron by marrow. This leads to low serum iron and decreased erythropoiesis. Examples include acute and chronic infections, malignancy and renal failure.
- **Sideroblastic Anemia:** Serum transferrin (and TIBC) normal to low, serum iron normal to high, saturation high.
- **Hemolytic Anemia:** Serum transferrin (and TIBC) normal to low, serum iron high, saturation high.
- **Hemochromatosis:** Serum transferrin (and TIBC) slightly low, serum iron high, saturation very high.
- **Protein depletion:** Serum transferrin (and TIBC) may be low, serum iron normal or low (if patient also is iron deficient). This may occur as a result of malnutrition, liver disease, renal disease.
- **Liver disease:** Serum transferrin variable; with acute viral hepatitis, high along with serum iron and ferritin. With chronic liver disease (eg, cirrhosis), transferrin may be low. Patients who have cirrhosis and portacaval shunting have saturated TIBC/transferrin as well as high ferritin.

Correlate Clinically.

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\*\*\* End Of Report \*\*\*



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