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Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

Prepared For

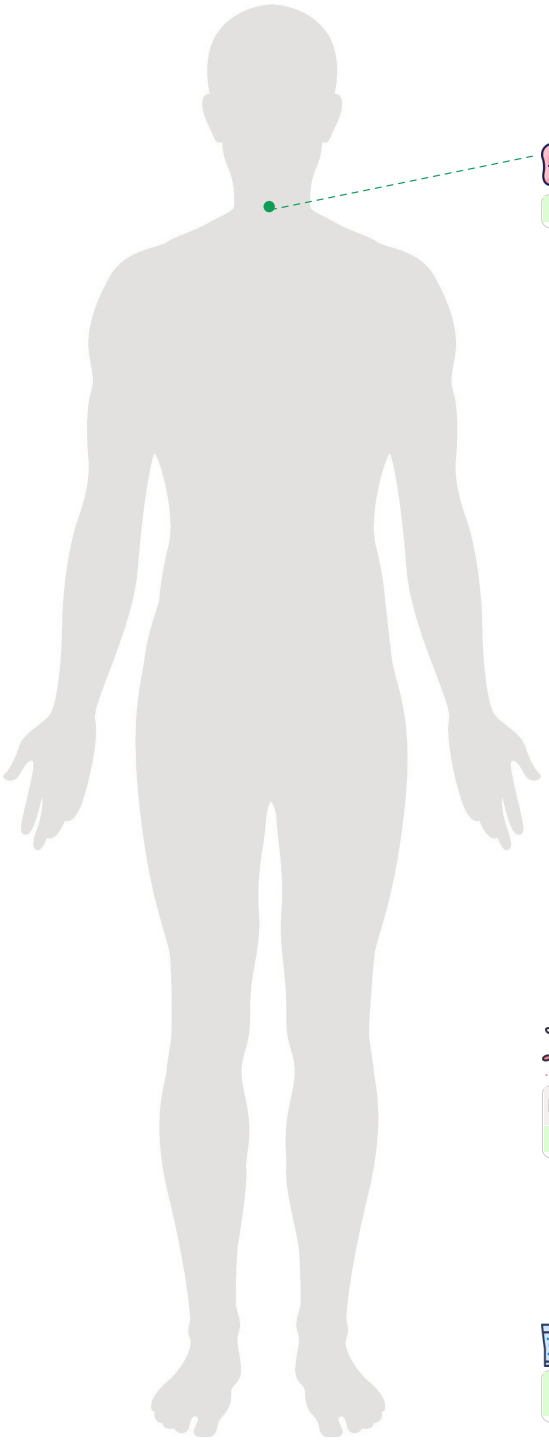
Mr Mr.Dummy

M 23

SMART HEALTH REPORT

Name	Patient ID	Gender	Age
Mr Mr.Dummy	8053363	M	23

Health Summary



THYROID PROFILE

Everything looks good

ANEMIA STUDIES

Hemoglobin	15.2

Everything looks good

VITAMIN PROFILE

Vitamin D 25 - Hydroxy	32.2

Everything looks good

MINERAL PROFILE

Everything looks good

LABORATORY REPORT

Redcliffe labs

Patient Name	: **Mr Mr.Dummy**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053363/RCL7247928	Report Date	: Apr 26, 2024, 02:00 AM
Referred By	: Dr. Dr. X	Barcode No	: HY522599
Sample Type	: Whole blood EDTA	Report Status	: Final Report

MC-5280

Fitness Package Advanced- Male

Complete Blood Count (CBC)

Test Description	Value(s)	Unit(s)	Reference Range
RBC Parameters			
Hemoglobin	15.2		
RBC Count	4.8		
PCV	45		
MCV	99		
MCH	29		
MCHC	33.2		
RDW (CV)	12.2		
RDW-SD	40.2		
WBC Parameters			
TLC	8		
Differential Leucocyte Count			
Neutrophils	56		
Lymphocytes	35		
Monocytes	6		
Eosinophils	3		
Basophils	0		
Absolute Leukocyte Counts			
Neutrophils.	4.48		
Lymphocytes.	2.8		
Monocytes.	0.48		
Eosinophils.	0.24		
Basophils.	0		
Platelet Parameters			
Platelet Count	235		
Mean Platelet Volume (MPV)	11.0		
PCT	0.25		
PDW	15.2		
P-LCR	25		
P-LCC	63		
Mentzer Index	20.63		

Interpretation:
CBC provides information about red cells, white cells and platelets. Results are useful in the diagnosis of anemia, infections, leukemias, clotting disorders and many other medical conditions.

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

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Sample Type	: Serum	Report Status	: Final Report

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Test Description	Value(s)	Unit(s)	Reference Range
Calcium			
Calcium Serum *Arsenazo III*	9.0	mg/dL	8.4 - 10.2

Interpretation:
Elevated calcium value are associated with hyperparathyrodism, 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.

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Test Description	Value(s)	Unit(s)	Reference Range
Iron Studies			
Iron *Ferene*	79	µg/dL	65 - 175
TIBC,(Total Iron Binding Capacity) *Calculated*	302	µg/dL	250 - 450
UIBC *Ferene*	223	µg/dL	69 - 240
Transferrin Saturation *Method :Derived from IRON and TIBC values*	26.16	%	-

Interpretation:
Increased levels due to iron ingestion or ineffective erythropoiesis.Decreased levels due to infection, inflammation, malignancy, menstruation and Fe deficiency.Needs to be taken into consideration with TIBC. Transferrin Saturation:- Low level Transferrin Saturation can indicate iron deficiency, erythropoiesis, infection, or inflammation. High level Transferrin Saturation can indicate recent ingestion of dietary iron,ineffective erythropoiesis,haemochromatosis or liver disease.High TIBC, UIBC, or transferrin usually indicates iron deficiency, but they are also increased in pregnancy and with the use of oral contraceptives. Low TIBC, UIBC, or transferrin may occur if someone has:Hemochromatosis, Certain types of anemia due to accumulated iron,Malnutrition,kidney disease that causes a loss of protein in urine.

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

High Sensitivity C-Reactive Protein (Hs-CRP)

HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP) *Particle enhanced immunoturbidimetric assay.*	2.0	mg/L	Low < 1.00 mg/L Average 1.0-3.0 mg/L High > 3.0 mg/L

Interpretation:
Note:- To assess vascular risk, it is recommended to test hsCRP levels 2 or more weeks apart and calculate the average

Comments
High sensitivity C Reactive Protein (hsCRP) significantly improves cardiovascular risk assessment as it is a strongest predictor of future coronary events. It reveals the risk of future Myocardial infarction and Stroke among healthy men and women, independent of traditional risk factors. It identifies patients at risk of first Myocardial infarction even with low to moderate lipid levels. The risk of recurrent cardiovascular events also correlates well with hsCRP levels. It is a powerful independent risk determinant in the prediction of incident Diabetes.

Ferritin

Ferritin *CLIA*	85.0	ng/mL	25 - 350

Interpretation:
Note:
Increase in serum ferritin due to inflammatory conditions (Acute phase response) can mask a diagnostically low result

Comments
Serum ferritin appears to be in equilibrium with tissue ferritin and is a good indicator of storage iron in normal subjects and in most disorders. In patients with some hepatocellular diseases, malignancies and inflammatory diseases, serum ferritin is a disproportionately high estimate of storage iron because serum ferritin is an acute phase reactant. In such disorders iron deficiency anemia may exist with a normal serum ferritin concentration. In the presence of inflammation, persons with low serum ferritin are likely to respond to iron therapy.

Increased Levels
1. Iron overload - Hemochromatosis, Thalassemia & Sideroblastic anemia
2. Malignant conditions - Acute myeloblastic & Lymphoblastic leukemia, Hodgkin's disease & Breast carcinoma
3. Inflammatory diseases - Pulmonary infections, Osteomyelitis, Chronic UTI, Rheumatoid arthritis, SLE, burns · Acute & Chronic hepatocellular disease

Decreased Levels
Iron deficiency anemia

FT3 (Free Triiodothyronine 3)

T3, Free *ECLIA*	3.2	pg/mL	2.0 - 4.4 Pregnancy : 2.0 - 3.8

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Test Description	Value(s)	Unit(s)	Reference Range
FT4 (Free Thyroxine 4)			
T4, Free *CLIA*	1.15	ng/dL	0.8 - 1.8

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

TSH 3rd Generation

Thyroid Stimulating Hormone (Ultrasensitive) *CLIA*	2.18	mIU/L	0.35 - 4.94

Interpretation:

Pregnancy	Reference ranges TSH
1 st Trimester	0.1 - 2.5
2 ed Trimester	0.2 - 3.0
3 rd Trimester	0.3 - 3.0

TSH levels are subject to circadian variation, reaching peak levels between 2 - 4.a.m. and at a minimum between 6-10 pm . The variation is of the order of 50% . hence time of the day has influence on the measured serum TSH concentrations.

Primary malfunction of the thyroid gland may result in excessive (hyper) or below normal (hypo) release of T3 or T4. In addition as TSH directly affects thyroid function, malfunction of the pituitary or the hypo - thalamus influences the thyroid gland activity. Disease in any portion of the thyroid-pitutary-hypothala- mus system may influence the levels of T3 and T4 in the blood. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels may be low. In addition, in the Euthyroid Sick Syndrome, multiple alterations in serum thyroid function test findings have been recognized in patients with a wide variety of non-thyroidal illnesses (NTI) without evidence of preexisting thyroid or hypothalami c-pitutary diseases.

Thyroid Binding Globulin (TBG) concentrations remain relatively constant in healthy individuals. However, pregnancy, excess estrogen, androgen, antibiotics, steroids and glucocorticoids are known to alter TBG levels and may cause false thyroid values for Total T3 and T4 tests.

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

Testosterone Total

Testosterone Total *CLIA*	610	ng/dL	120 - 1019

Interpretation:

Reference values for Males (7-18 years) characterized by Tanner Stage

Tanner Stage	5-95th percentiles (ng/dL)
1	< 2.5
2	< 2.5 - 432
3	64.9 - 778
4	180 - 763
5	188 - 882

Reference values for females (8-18 years) characterized by Tanner Stage

Tanner Stage	5-95th percentiles (ng/dL)
1	<2.5 - 6.1
2	<2.5 - 10.4
3	<2.5 - 23.7
4	<2.5 - 26.8
5	4.6 - 38.3

Note

1. All applications that require measurement of very low level of testosterone (eg hypogonadal men, children, virilization or intersex disorders in women etc) recommended test is Testosterone total, Ultrasensitive
2. LC-MS/MS is the gold standard for steroid hormone assays due to increased sensitivity & specificity as compared to immunoassays

Clinical Use

Assessment of testicular function in males

Increased levels

1. Precocious puberty (Males)
2. Androgen resistance
3. Testotoxicosis
4. Congenital Adrenal Hyperplasia

Decreased levels

1. Delayed puberty (Males)
2. Gonadotropin deficiency
3. Testicular defects
4. Systemic diseases

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Creatine Phosphokinase (CPK)

Test Description	Value(s)	Unit(s)	Reference Range
Creatine Kinase-CPK *Serum, Enzymatic*	92	U/L	46 - 171

Interpretation:
High CPK levels may be seen in patients who have Brain injury or stroke, Convulsions, Delirium tremens, Dermatomyositis or polymyositis, Electric shock, Heart attack, Inflammation of the heart muscle (myocarditis), Lung tissue death (pulmonary infarction), Muscular dystrophies, Myopathy.

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

Immunoglobulin E (IgE Total)

IMMUNOGLOBULIN IgE TOTAL SERUM *CLIA*	96	IU/mL	28.0 - 140.0

Interpretation:
The level of serum IgE rises during childhood and reaches adult levels during the teens. IgE is the mediator of the allergic response. Patients with atopic disease, including allergic asthama, allergic rhinitis, and atopic dermatitis commonly have moderately elevated serum IgE levels. Total serum IgE levels may also be elevated in the presence of some clinical conditions that are not related to allergy. These clinical conditions include parasitic infections, immunodeficiency states, autoimmune diseases, Hodgkins disease, bronchopulmonary aspergillosis, IgE myeloma, and Sezary syndrome.

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

Vitamin D (25 Hydroxy)

Vitamin D 25 - Hydroxy *CLIA*	32.2	ng/mL	Deficiency: <10 Insufficiency: 10 - 29 Sufficiency: 30 - 100 Toxicity: >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.

Vitamin B12

Vitamin - B12 *CLIA*	550	pg/mL	200 - 1100

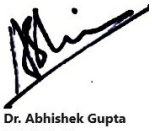
Interpretation:
Low Values are a sign of a vitamin B12 deficiency. People with this deficiency are likely to have or develop symptoms.
Causes of vitamin B12 deficiency include:Not enough vitamin B12 in diet (rare except with a strict vegetarian diet), Diseases that cause malabsorption (for example, celiac 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."

*** End Of Report ***

Disclaimer: Method given in report are only indicative and can be changed depending upon type of machine and kit available at time of testing.

Not all tests at all locations are under NABL scope. Availability of tests under NABL scope varies from lab to lab.



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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.

Name	Patient ID	Gender	Age
Mr Mr.Dummy	8053363	M	23

Health Advisory

Normal (N) Low (L) Borderline (BL) High (H)

Vitamins Profile

Vitamins are considered essential nutrients because they perform hundreds of roles in your body. They help maintain bones, heal wounds, and strengthen your immune system. They also convert food into energy, and repair cellular damage

Vitamin D 25 - Hydroxy: 32.2 ng/mL

Causes of Deficiency :

Insufficient dietary intake.

Malabsorption problem- Your digestive system can't absorb enough Vit D from food.

Less exposure to sunlight. Production of vit D from your skin depends upon your skin tone: Darker skin needs more exposure than lighter skin to produce equal amounts of Vit D. This happens because dark skin has natural protection against sunshine.

Medical conditions that affect the liver or kidney- Vit D is not sufficiently converted to its active form in your body.

Abnormal results may indicate :

Vit D deficiency is very common. Vit D deficiency is linked with many medical conditions including depression, type 2 diabetes, hypertension, cancer, bone pain and weak bones.

Anemia Profile

Anemia is the condition where your body has less RBCs (red blood cells) or the RBCs don't have enough haemoglobin. Haemoglobin is the protein present in RBCs that help carry oxygen to your body's tissues.

Hemoglobin: 15.2 gms%

Abnormal results may indicate :

Anemia.

Diet and Lifestyle Tips :

Eat iron rich foods as iron is essential for the production of hemoglobin. Iron-rich foods include meat, fish, eggs and oysters, beans, lentils, dark green leafy vegetables (spinach, watercress, curly kale), broccoli, iron fortified cereals and dried fruits (apricots, prunes and raisins).

Avoid drinking tea and coffee with meals, and foods with high phytic acid, such as whole grain cereals, as they can affect digestive absorption of iron from your diet.

Your body absorbs iron from plant-based foods better when you eat them with vitamin-C rich foods, such as oranges, strawberries, melons, peppers and tomatoes.