Redcliffe labs

Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

Prepared For

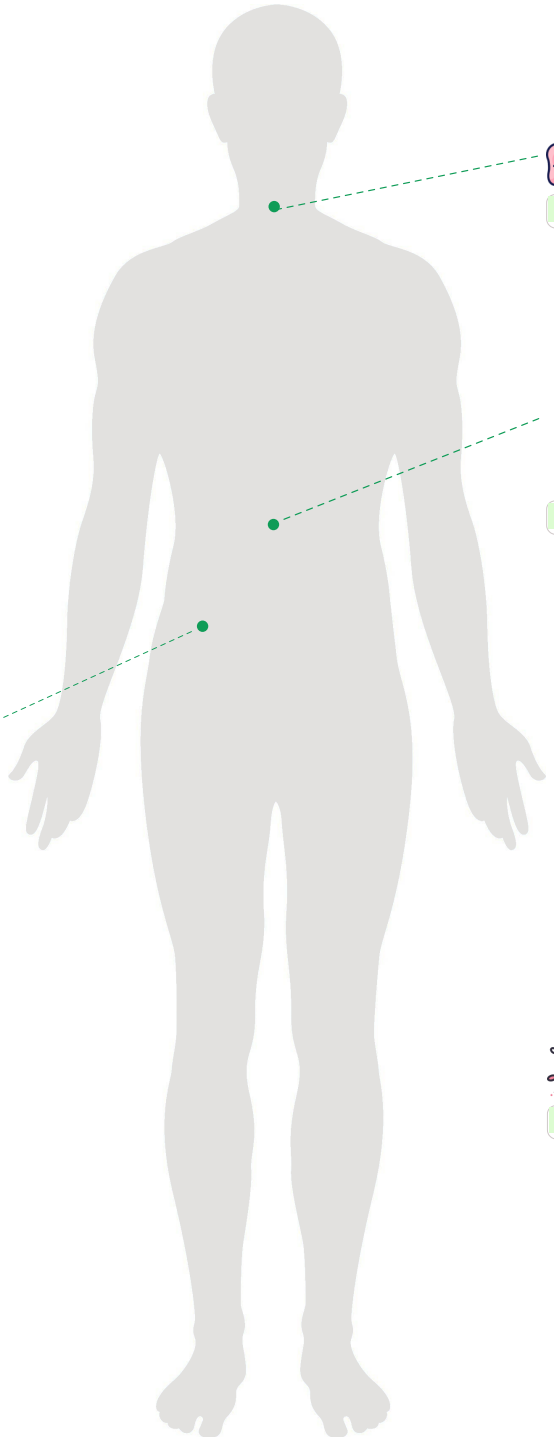
Mr MR.DUMMY

M 23

SMART HEALTH REPORT

Name	Patient ID	Gender	Age
Mr MR.DUMMY	8052531	M	23

Health Summary



BLOOD COUNTS

Everything looks good

THYROID PROFILE

Everything looks good

DIABETES MONITORING

Everything looks good

KIDNEY PROFILE

Everything looks good

ANEMIA STUDIES

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	: 8052531/RCL7248630	Report Date	: May 25, 2024, 06:46 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY588409
Sample Type	: Whole blood EDTA	Report Status	: Final Report

Polycystic Ovary Syndrome (PCOS) Panel- Advance

Complete Blood Count (CBC)

Test Description	Value(s)	Unit(s)	Reference Range
RBC Parameters			
Hemoglobin *colorimetric*	13.8	g/dL	13.0 - 17.0
RBC Count *Electrical impedance*	5.4	10^6/µl	4.5 - 5.5
PCV *Calculated*	42.1	%	40 - 50
MCV *Calculated*	**78.4**	fl	83 - 101
MCH *Calculated*	**25.6**	pg	27 - 32
MCHC *Calculated*	32.7	g/dL	31.5 - 34.5
RDW (CV) *Calculated*	13.7	%	11.6 - 14.0
RDW-SD *Calculated*	**34.8**	fl	35.1 - 43.9
WBC Parameters			
TLC *Electrical impedance and microscopy*	**12.2**	10^3/µl	4 - 10
Differential Leucocyte Count			
Neutrophils *Laser based Flow-cytometry*	70	%	40-80
Lymphocytes *Laser based Flow-cytometry*	20	%	20-40
Monocytes *Laser based Flow-cytometry*	8	%	2-10
Eosinophils *Laser based Flow-cytometry*	2	%	1-6
Basophils *Laser based Flow-cytometry*	0	%	<2
Absolute Leukocyte Counts			
Neutrophils. *Calculated*	**8.54**	10^3/µl	2 - 7
Lymphocytes. *Calculated*	2.44	10^3/µl	1 - 3
Monocytes. *Calculated*	0.98	10^3/µl	0.2 - 1.0
Eosinophils. *Calculated*	0.24	10^3/µl	0.02 - 0.5
Basophils.	**0**	10^3/µl	0.02 - 0.5

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 25, 2024, 06:46 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY588409
Sample Type	: Whole blood EDTA	Report Status	: Final Report

Test Description	Value(s)	Unit(s)	Reference Range
Calculated			
Platelet Parameters			
Platelet Count *Electrical impedance and microscopy*	217	10^3/µl	150 - 410
Mean Platelet Volume (MPV) *Calculated*	9.9	fL	9.3 - 12.1
PCT *Calculated*	0.2	%	0.17 - 0.32
PDW *Calculated*	17.3	fL	8.3 - 25.0
P-LCR *Calculated*	34.5	%	18 - 50
P-LCC *Calculated*	75	%	44 - 140
Mentzer Index *Calculated*	14.52	%	> 13

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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 25, 2024, 06:45 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY588409
Sample Type	: Whole blood EDTA	Report Status	: Final Report

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

Erythrocyte Sedimentation Rate (ESR)

ESR - Erythrocyte Sedimentation Rate *MODIFIED WESTERGREN*	8	mm/hr	0 - 10

Interpretation:
ESR is also known as Erythrocyte Sedimentation Rate. An ESR test is used to assess inflammation in the body. Many conditions can cause an abnormal ESR, so an ESR test is typically used with other tests to diagnose and monitor different diseases. An elevated ESR may occur in inflammatory conditions including infection, rheumatoid arthritis ,systemic vasculitis, anemia, multiple myeloma , etc. Low levels are typically seen in congestive heart failure, polycythemia ,sickle cell anemia, hypo fibrinogenemia , etc.

AGE	MALE	FEMALE
1 DAY	0-2	0-2
2 - 7 DAYS	0-4	0-4
8 - 14 DAYS	0-17	0-17
15 DAYS - 17 YEARS	0-20	0-20
18 - 50 YEARS	0-10	0-12
51- 60 YEARS	0-12	0-19
61 - 70 YEARS	0-14	0-20
71 - 100 YEARS	0-30	0-35

Reference- Dacie and lewis practical hematology

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 25, 2024, 06:43 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY588409
Sample Type	: Whole blood EDTA	Report Status	: Final Report

HbA1C (Glycosylated Haemoglobin)

Test Description	Value(s)	Unit(s)	Reference Range
Glycosylated Hemoglobin (HbA1c) *HPLC*	5.4	%	< 5.7
Estimated Average Glucose	108.28	mg/dL	Refer Table Below

Interpretation:

Interpretation For HbA1c% As per American Diabetes Association (ADA)

Reference Group	HbA1c in %
Non diabetic adults >=18 years	<5.7
At risk (Prediabetes)	5.7 - 6.4
Diagnosing Diabetes	>= 6.5
Therapeutic goals for glycemic control	Age > 19 years Goal of therapy: < 7.0 Age < 19 years Goal of therapy: <7.5

Note:

1. Since HbA1c reflects long term fluctuations in the blood glucose concentration, a diabetic patient who is recently under good control may still have a high concentration of HbA1c. Converse is true for a diabetic previously under good control but now poorly controlled. 2. Target goals of < 7.0 % may be beneficial in patients with short duration of diabetes, long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes, limited life expectancy or extensive co-morbid conditions, targeting a goal of < 7.0 % may not be appropriate

Comments :

HbA1c provides an index of average blood glucose levels over the past 8 - 12 weeks and is a much better indicator of long term glycemic control as compared to blood and urinary glucose determinations ADA criteria for correlation between HbA1c & Mean plasma glucose levels.

HbA1c(%)	Mean Plasma Glucose (mg/dL)	HbA1c(%)	Mean Plasma Glucose (mg/dL)
6	126	12	298
8	183	14	355
10	240	16	413

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 08, 2024, 11:50 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670123
Sample Type	: FLUORIDE F	Report Status	: Final Report

Test Description	Value(s)	Unit(s)	Reference Range
Glucose Fasting (BSF)			
Glucose Fasting *Hexokinase*	98.0	mg/dL	<100

Interpretation:

Status	Fasting plasma glucose in mg/dL
Normal	<100
Impaired fasting glucose	100 - 125
Diabetes	≥126

Reference : American Diabetes Association

Comment :
Blood glucose determinations in commonly used as an aid in the diagnosis and treatment of diabetes. Elevated glucose levels (hyperglycemia) may also occur with pancreatic neoplasm, hyperthyroidism, and adrenal cortical hyper function as well as other disorders. Decreased glucose levels (hypoglycemia) may result from excessive insulin therapy insulinoma, or various liver diseases.

Note
1.The diagnosis of Diabetes requires a fasting plasma glucose of > or = 126 mg/dL or a random / 2 hour plasma glucose value of > or = 200 mg/dL with symptoms of diabetes mellitus.
2.Very high glucose levels (>450 mg/dL in adults) may result in Diabetic Ketoacidosis.

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 09, 2024, 01:08 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670125
Sample Type	: Serum	Report Status	: Final Report

Kidney Function Test (KFT)

Test Description	Value(s)	Unit(s)	Reference Range
Blood Urea *Urea GLDH*	19.4	mg/dL	16.6 - 48.5
Creatinine *Modified Jaffe*	0.89	mg/dL	0.6 - 1.2
Bun *Calculated*	9.07	mg/dL	6 - 20
Bun/Creatinine Ratio *Calculated*	10.19		
Urea / Creatinine Ratio *Calculated*	21.8		
Uric Acid *Uricase*	4.3	mg/dL	3.5 - 7.2
Calcium Serum *O-Cresolphthalein Complex*	10.0	mg/dL	8.9 - 10.7
Phosphorus *Colorimetric - Phosphomolybdate Formation*	4.1	mg/dL	2.3 - 4.7
Sodium *Direct ISE*	139.0	mEq/L	135 - 145
Potassium *Direct ISE*	4.5	mmol/L	3.5 - 5.3
Chloride *Direct ISE*	102.0	mEq/L	95 - 107

Interpretation:

Kidney function tests is a collective term for a variety of individual tests and proceduresthat can be done toevaluate how well the kidneys are functioning. Many conditions can affect the ability of the kidneys to carryout their vital functions. Somelead to a rapid (acute) decline in kidney functionothers lead to a gradual (chronic) declineinfunction. Both result in a buildup of toxic waste subst done on urine samples, as well as on blood samples. A number of symptoms may indicate a problem with your kidneys. These include : high blood pressure,blood in urine frequent urges to urinate,difficulty beginning urination,painful urination,swelling in the hands and feet due to a buildup of fluids in the body. A single symptom may not mean something serious. However, when occurring simultaneously, these symptoms suggest that your kidneys are not working properly. Kidney function tests can help determine the reason. Electrolytes (sodium,potassium,and chloride) are present in the human body and the balancing act of the electrolytes in our bodies is essential for normal function of our cells and organs. There has to be a balance.Ionized calcium this test if you have signs of kidney or parathyroid disease. The test may also be done to monitor progress and treatment of these diseases.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 09, 2024, 01:10 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670125
Sample Type	: Serum	Report Status	: Final Report

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

TSH 3rd Generation

Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	3.245	µIU/mL	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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 09, 2024, 01:10 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670125
Sample Type	: Serum	Report Status	: Final Report

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

Prolactin (PRL)

Prolactin *CMIA*	16.4	ng/mL	3.46 - 19.40

Interpretation:

Note:

1. Since prolactin is secreted in a pulsatile manner and is also influenced by a variety of physiologic stimuli, it is recommended to test 3 specimens at 20-30 minute intervals after pooling.
2. Major circulating form of Prolactin is a nonglycosylated monomer, but several forms of Prolactin linked with immunoglobulin occur which can give falsely high Prolactin results.
3. Macroprolactin assay is recommended if prolactin levels are elevated, but signs and symptoms of hyperprolactinemia are absent or pituitary imaging studies are normal

Clinical Use

· Diagnosis & management of pituitary adenomas
· Differential diagnosis of male & female hypogonadism

Increased Levels

· **Physiologic**: Sleep, stress, postprandially, pain, coitus
· **Systemic disorders**: Chest wall or thoracic spinal cord lesions, Primary / Secondary hypothyroidism, Adrenal insufficiency, Chronic renal failure, Cirrhosis
· **Medications**: **Psychiatric medications** like Phenothiazine, Haloperidol, Risperidone, Domperidone, Fluoexetine, Amitriptylene, MAO inhibitors etc.,

Antihypertensives: Alphamethyldopa, Reserpine, Verapamil

Opiates: Heroin, Methadone, Morphine, Apomorphine

Cimetidine / Ranitidine

· Prolactin secreting pituitary tumors: Prolactinoma, Acromegaly
· Miscellaneous: Epileptic seizures, Ectopic secretion of prolactin by non-pituitary tumors, pressure / transaction of pituitary stalk, macroprolactinemia
· Idiopathic

Decreased levels

· Pituitary deficiency: Pituitary necrosis / infarction
· Bromocriptine administration
· Pseudohypoparathyroidism

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 09, 2024, 01:10 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670125
Sample Type	: Serum	Report Status	: Final Report

Testosterone Total

Test Description	Value(s)	Unit(s)	Reference Range
Testosterone Total *CMIA*	456.0	ng/dL	Males(21-49 years) 240.24 - 870.68 Males (>=50 years) 220.91 - 715.81

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

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 09, 2024, 01:07 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670124
Sample Type	: INSULIN F	Report Status	: Final Report

Insulin Fasting

Test Description	Value(s)	Unit(s)	Reference Range
Insulin (Fasting) *ECLIA*	3.5	µU/mL	2.6 - 24.9

Interpretation:

Note

1. A single random blood sample for insulin may provide insufficient information due to wide variation in the time responses of insulin levels and blood glucose.
2. Stimulation of insulin secretion may be caused by many factors like hyperglycemia, glucagon, amino acids, growth hormone and catecholamines.
3. Interference in insulin assay is seen due to insulin antibodies which develop in patients treated with bovine or porcine insulin.

Clinical Utility

· Evaluation of fasting hypoglycemia
· Evaluation of Polycystic Ovary syndrome
· Classification of Diabetes mellitus
· Predict Diabetes mellitus
· Assessment of Beta cell activity
· Select optimal therapy for Diabetes
· Investigation of insulin resistance
· Predict the development of Coronary Artery Disease

Increased levels - Insulinoma, Some Type II diabetic patients, Infantile hypoglycemia, Hyperinsulinism, Obesity, Cushing's syndrome, Oral contraceptives, Acromegaly, Hyperthyroidism

Decreased levels - Untreated Type I Diabetes mellitus

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8052531/RCL7248630	Report Date	: May 09, 2024, 01:10 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC670125
Sample Type	: Serum	Report Status	: Final Report

Test Description	Value(s)	Unit(s)	Reference Range
LH / FSH Ratio			
Luteinising Hormone-LH *CMIA*	10.0	mIU/mL	Normal Males - 0.57 - 12.07
Follicle Stimulating Hormone-FSH *CMIA*	4.56	mIU/mL	Males 0.95 - 11.95
LH / FSH Ratio	2.19		

Interpretation:
1. Ratio of LH to FSH > 2.50 indicates the presence of PCOS.
2.Polycystic Ovary Syndrome (PCOS) is a complex syndrome and each of the clinical phenotype is associated with different patterns of steroid hormones. It is likely that simultaneous measurement of multiple androgens (steroid/androgen profiling with highly specific and sensitive method LC-MS/MS) be more sensitive for detecting PCOS-related androgen excess and for predicting metabolic risk.
3.Women with Non-classical Congenital Adrenal Hyperplasia (NC-CAH) due to 21-hydroxylase deficiency and women with PCOS have similar clinical presentation, with hyperandrogenism, oligomenorrhea, and polycystic ovaries. The screening tool to distinguish NC-CAH from PCOS is the basal 17-OHP levels and the ACTH stimulation test.

Comments:
Polycystic Ovarian Syndrome (PCOS) affects 5-10% of women of reproductive age, making it the most common endocrine disorder of women in this age group. It is characterized by amenorrhea, hirsuitism and infertility. It is caused by a complex interaction of abnormalities in gonadotropins, androgens & estrogens. Insulin resistance and hyperinsulinemia contribute significantly to its pathophysiology. Although PCOS is associated with hyperandrogenism & infertility early in life, it is a harbinger of a lifelong condition that can lead to serious sequelae such as Endometrial or Ovarian cancer, Diabetes mellitus & Coronary artery disease. Thus, it is crucial to diagnose PCOS early in its course not only to recognize but also to delay or arrest its metabolic sequelae

*** 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.

Dr. Dummy

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.

Name	Patient ID	Gender	Age
Mr MR.DUMMY	8052531	M	23

Health Advisory

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

Fertility Profile

In general, fertility is the ability to produce children. However, the hormones involved in fertility are responsible for various other functions of the body as well. It is important to have healthy levels for overall wellbeing.

Testosterone Total: 456.0 ng/dL