Redcliffe labs

Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

Prepared For

www.redcliffelabs.com

Name

Gender

Patient ID

Age

Your Health at a Glance – A Personalized Journey

Report Sections

1. **Body Summary**
   A visual snapshot of your overall health, simple and easy to understand
2. **Quick Health Highlights**
   Your health scores and a single view of all abnormal results for quick attention
3. **Lab Report Overview**
   Understand at a glance which tests are normal and which are abnormal
4. **Personalized Health Advisory**
   Actionable insights and expert guidance tailored just for you
5. **Doctor's Reference Report**
   Complete lab results with interpretations to share with your healthcare provider

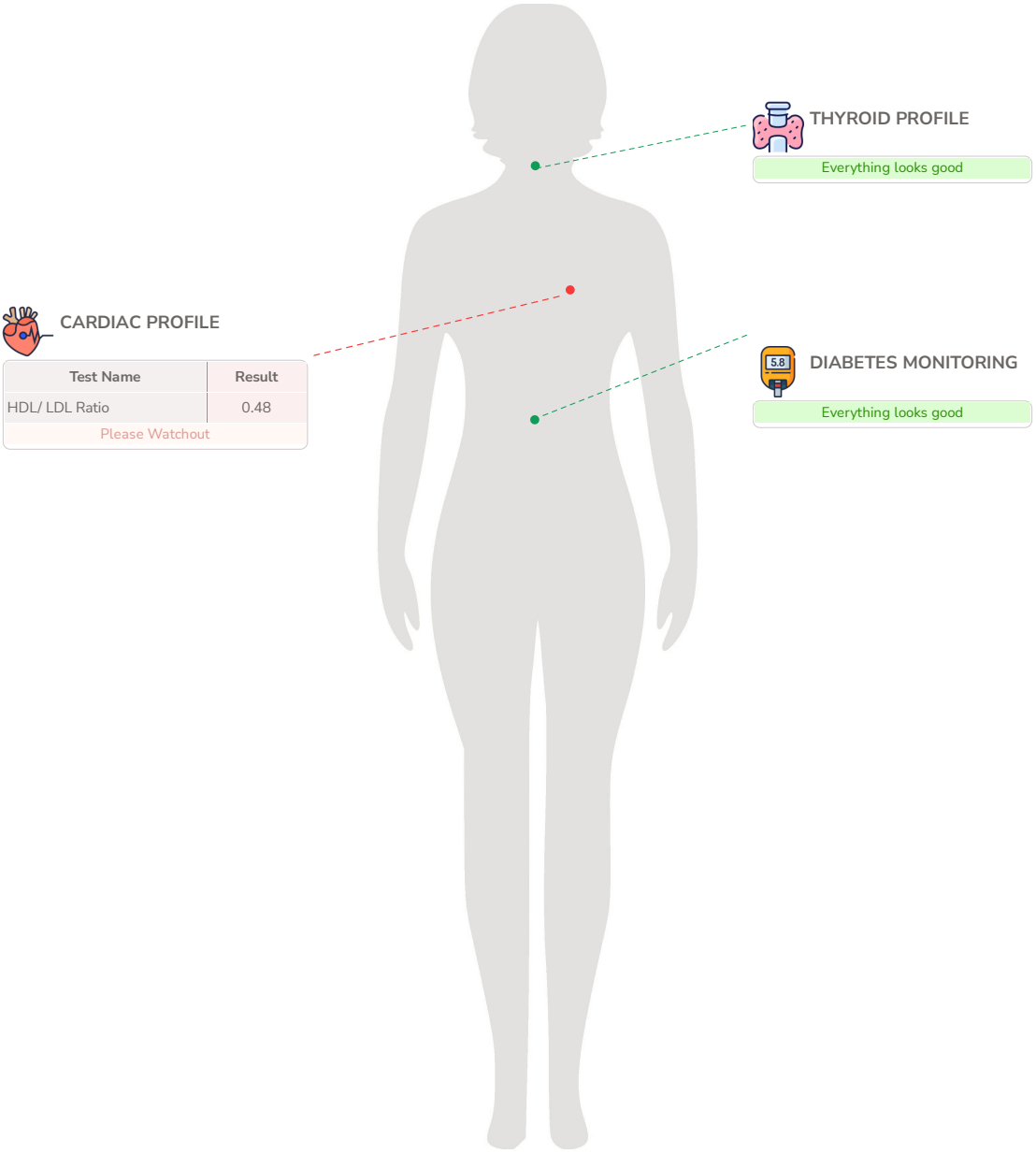
How to Read This Report

This comprehensive health report provides detailed insights into your test results. Each section offers different perspectives on your health status, from visual summaries to detailed analysis and personalized recommendations.

SMART HEALTH REPORT

Name	Gender
Patient ID	Age

Health Summary



Name

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Patient ID

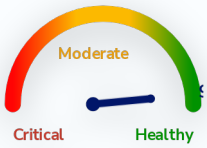
Age

Quick Health Summary

Personal Insights - Score

97 (Excellent)

Your health assessment indicates excellent management of diabetes, cardiac health, thyroid function, and hormonal balance. With a strong overall health score, you are well-positioned for continued wellness. Maintain a balanced lifestyle and consider regular check-ups to sustain these positive results.



Summary of Key Health Indicators

Total Parameters Tested	Abnormal Results
16	1

Health Status by Body System

Profile	Abnormal / Total	Key Results
Cardiac Profile	1 / 9	HDL/ LDL Ratio: 0.48 Ratio (Normal: 0.5–3.0 Ratio)
Diabetes Monitoring	0 / 1	All Normal
Thyroid Profile	0 / 1	All Normal
Fertility Profile	0 / 1	All Normal

ISO 9001 :2015

SMART HEALTH REPORT

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Name

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Report Summary

Normal Abnormal No color - Reference range not available

DIABETES MONITORING

Test Name	Result unit	Range
Glucose Fasting	85.8 mg/dL	70-100

CARDIAC PROFILE

Test Name	Result unit	Range
Total Cholesterol	153 mg/dL	< 200
Triglycerides	106 mg/dL	< 150
HDL Cholesterol	42.5 mg/dL	40-80
Non HDL Cholesterol	110.5 mg/dL	< 130
LDL Cholesterol	89.3 mg/dL	30-100
V.L.D.L Cholesterol	21.2 mg/dL	< 30
Chol/HDL Ratio	3.6 Ratio	3.5-5
HDL/ LDL Ratio	**0.48** Ratio	0.5-3
LDL/HDL Ratio	2.1 Ratio	

THYROID PROFILE

Test Name	Result unit	Range
Thyroid Stimulating Hormone (Ultrasensitive)	1.51 mIU/L	0.35-4.94

FERTILITY PROFILE

Test Name	Result unit	Range
Testosterone Total	39 ng/dL	8.4-48.1

LABORATORY REPORT

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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

Polycystic Ovary Syndrome (PCOS) Panel - Essential

Glucose Fasting

Glucose Fasting *Hexokinase*	85.8	mg/dL	70 - 100

Interpretation:

Status	Fasting plasma glucose in mg/dL
Normal	70 - 100
Impaired fasting glucose	101 - 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. Amita Yadav
MBBS, MD
Consultant Pathologist

Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
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Test Description	Value(s)	Unit(s)	Reference Range
Lipid Profile			
Total Cholesterol *Enzymatic - Cholesterol Oxidase*	153	mg/dL	<200
Triglycerides *Colorimetric - Lip/Glycerol Kinase*	106	mg/dL	<150
HDL Cholesterol *Homogenous enzymatic colorimetric*	42.5	mg/dL	>40
Non HDL Cholesterol *Calculated*	110.5	mg/dL	<130
LDL Cholesterol *Calculated*	89.3	mg/dL	<100
V.L.D.L Cholesterol *Calculated*	21.2	mg/dL	< 30
Chol/HDL Ratio *Calculated*	3.6	Ratio	3.5 - 5.0
HDL/ LDL Ratio *Calculated*	**0.48**	Ratio	0.5 - 3.0
LDL/HDL Ratio *Calculated*	2.1	Ratio	-

Interpretation:
Lipid level assessments must be made following 9 to 12 hours of fasting, otherwise assay results might lead to erroneous interpretation. NCEP recommends of 3 different samples to be drawn at intervals of 1 week for harmonizing biological variables that might be encountered in single assays.

National Lipid Association Recommendations (NLA-2014)	Total Cholesterol (mg/dL)	Triglyceride (mg/dL)	LDL Cholesterol (mg/dL)	Non HDL Cholesterol (mg/dL)
Optimal	<200	<150	<100	<130
Above Optimal			100-129	130 - 159
Borderline High	200-239	150-199	130-159	160 - 189
High	>=240	200-499	160-189	190 - 219
Very High	-	>=500	>=190	>=220

HDL Cholesterol	
Low	High
<40	>=60

Risk Stratification for ASCVD (Atherosclerotic Cardiovascular Disease) by Lipid Association of India.

Risk Category	A. CAD with > 1 feature of high risk group
Extreme risk group	B. CAD with >1 feature of very high risk group of recurrent ACS (within 1 year) despite LDL-C <or = 50 mg/dl or poly vascular disease
Very High Risk	1.Established ASCVD 2.Diabetes with 2 major risk factors of evidence of end organ damage 3. Familial Homozygous Hypercholesterolemia
	1. Three major ASCVD risk factors 2. Diabetes with 1 major risk factor or no evidence

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

High Risk	of end organ damage 3. CHD stage 3B or 4. 4 LDL >190 mg/dl 5. Extreme of a single risk factor 6. Coronary Artery Calcium - CAC > 300 AU 7. Lipoprotein a >/= 50 mg/dl 8. Non stenotic carotid plaque
Moderate Risk	2 major ASCVD risk factors
Low Risk	0-1 major ASCVD risk factors

Major ASCVD (Atherosclerotic cardiovascular disease) Risk Factors

1. Age >/=45 years in Males & >/= 55 years in Females	3. Current Cigarette smoking or tobacco use
2. Family history of premature ASCVD	4. High blood pressure
5. Low HDL	

Newer treatment goals and statin initiation thresholds based on the risk categories proposed by Lipid Association of India in 2020.

Risk Group	Treatment Goals		Consider Drug Therapy	
	LDL-C (mg/dl)	Non-HDL (mg/dl)	LDL-C (mg/dl)	Non-HDL (mg/dl)
Extreme Risk Group Category A	<50 (Optional goal <OR = 30)	<80 (Optional goal <OR = 60)	>OR = 50	>OR = 80
Extreme Risk Group Category B	>OR = 30	>OR = 60	> 30	> 60
Very High Risk	<50	<80	>OR = 50	>OR = 80
High Risk	<70	<100	>OR = 70	>OR = 100
Moderate Risk	<100	<130	>OR = 100	>OR = 130
Low Risk	<100	<130	>OR = 130*	>OR = 160

*** After an adequate non-pharmacological intervention for at least 3 months.**

References : Management of Dyslipidaemia for the Prevention of Stroke : Clinical practice Recommendations from the Lipid Association of India. Current Vascular Pharmacology,2022,20,134-155.

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

TSH 3rd Generation

Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	1.51	mIU/L	0.35 - 4.94

Interpretation:

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

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

Clinical Use:
- Diagnose Hypothyroidism and Hyperthyroidism
- Monitor T4 replacement or T4 suppressive therapy
- Qunatify TSH levels in the subnormal range

Increased Levels : Primary hypothyroidism, Subclinical hypothyroidis, TSH dependent Hyperthyroidism, Thyroid hormone resistance
Decreased Levels: Grace disease, Autonomous thyroid hormone secretion, TSH deficiency

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Sample Collected	:	Report Date	:

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

Prolactin (PRL)

Prolactin *CLIA*	13.3	ng/mL	Women(Not-pregnant) 4.79 - 23.3

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
4. Kindly note Serum prolactin for lactating mothers is 79-400 ng/ml.

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

Testosterone Total

Testosterone Total *CLIA*	39	ng/dL	8.4 - 48.1

Interpretation:

Age in Years	Reference Ranges ng/dL
Males 20-49	249 - 836

Dr. Amita Yadav
MBBS, MD
Consultant Pathologist

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Sample Collected	:	Report Date	

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

Males ≥ 50 years	193 - 740
Females 20-49	8.4 - 48.1
Females ≥ 50	2.9- 40.8

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

Tanner Stage	5-95th percentiles (ng/dL)
1	2.31 - 30.28
2	3.75 - 282.06
3	8.65 - 681.78
4	17.88 - 785.6
5	13.27 - 906.15

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

Tanner Stage	5-95th percentiles (ng/dL)
1	0.58 - 33.17
2	4.33 - 23.07
3	6.92 - 42.97
4	15.29 - 1.86
5	15.00 - 102.38

Note

- 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
- 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

- Precocious puberty (Males)
- Androgen resistance
- Testotoxicosis
- Congenital Adrenal Hyperplasia

Decreased levels

- Delayed puberty (Males)
- Gonadotropin deficiency
- Testicular defects
- Systemic diseases

LH / FSH

Dr. Amita Yadav
MBBS, MD
Consultant Pathologist

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
Luteinising Hormone-LH *ECLIA*	9.6	mIU/mL	Female Follicular phase 2.4 - 12.6 Ovulation phase 14.0 - 95.6 Luteal phase 1.0 - 11.4 Postmenopause Without hormone therapy - 7.7 - 58.5 Under hormone therapy - 0.7 - 52.7
Follicle Stimulating Hormone-FSH *Serum, CLIA*	3.3	mIU/mL	Follicular 2.50 - 10.20 Mid Cycle Peak 3.40 - 33.40 Luteal Phase 1.50 - 9.10 Post Menopausal 23.00 - 116.30 Pregnant 0.30
LH / FSH Ratio	2.91		

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

Clinical use :
1. In Diagnosis of gonadal dysfunction and management of infertility
Increased level : Primary hypogonadism
Decreased level :
1. Hypothalamic GnRH deficiency
2. Hypopituitarism

*** End Of Report ***

Dr. Amita Yadav
MBBS, MD
Consultant Pathologist

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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.

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