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Dr Lal PathLabs

Smart Report

Test Results and Personalized Health Advice

Name : DUMMY-9
Age : 22
Gender : Female

Date : 28 December 2019
Lab number : 150581478

Personal Health Analytics Report

What to expect from this report

- ✓ Analysis and explanation of your health check results.
- ✓ Diet dos and don'ts and other guidance.

Always consult your doctor

- ✓ While some parameters help in diagnosis independently, others are more complex and require examination by a doctor. Hence you might find some parameters in this report that are yellow, orange, red or have no colour or explanation which you will need to discuss with your doctor.
- ✓ The Smart Health Report is created to help you understand your report better and is not intended to replace a doctor.

Report Walkthrough

Your Health Summary

Congratulations for getting a health check done. This is the first step towards taking control of your health. We noticed that you are doing well with the following:

- Sugar values are normal
- Your cholesterol is normal
- Kidney functions have tested normal
- Your Sunshine Vit D is normal
- Your Vit B12 is normal

Please note! There are a few test results or risk factors which seem abnormal and need your attention.

- Thyroid test results need evaluation
- Liver function tests are out of range
- Calcium in blood is low

Normal
Borderline
Abnormal
Very Abnormal
Partial / Not tested

Your Important Parameters at a Glance

Profile	Important parameters in respective profile
GLUCOSE	Fasting Glucose: Value: 100.00, Range: 70.00-100.00 HbA1C: Value: 4.9, Range: <5.69
LIVER FUNCTION	GGTP: Value: 24, Range: <38 Alk. Phosphatase: Value: 41, Range: 30-120 Total Bilirubin: Value: 5.00, Range: 0.30-1.20 Total Protein: Value: 4.00, Range: 6.40-8.30 SGOT (AST): Value: 29, Range: <35 SGPT (ALT): Value: 41, Range: <35 S. Albumin: Value: 1.00, Range: 3.50-5.20
KIDNEY FUNCTION	Calcium: Value: 8.00, Range: 8.80-10.60 Uric Acid: Value: 4.00, Range: 2.60-6.00 Creatinine: Value: 0.80, Range: 0.51-0.95
HEMATOLOGY	Haemoglobin: Value: 13.10, Range: 11.50-15.00 Platelet Count: Value: 152.0, Range: 150.00-450.00 Leucocyte: Value: 5.00, Range: 4.00-10.00
IRON	Serum Iron: Value: 80.00, Range: 50.00-170.00
PANCREAS	Serum Amylase: Value: 47.00, Range: 28.00-100.00

Your Important Parameters at a Glance continued...

Profile	Important parameters in respective profile
CHOLESTEROL	Triglycerides Value : 129.00 Range : <150.00
CARDIAC MARKER	HS-CRP Value : >10.00 Range : <1.00
THYROID PROFILE	TSH Value : 1.90 Range : 0.35-5.50 T3 Value : 0.80 Range : 0.60-1.81 T4 Value : 0.70 Range : 5.01-12.45
VITAMINS	Vitamin D3 Value : 129.00 Range : 75.00-250.00 Vit B12 Value : 410.00 Range : 211.00-911.00
URINALYSIS	Urine Ketone Value : Negative Urinary Glucose Value : Negative Urinary Protein Value : Negative Nitrite Value : Negative Specific Gravity Value : 1.010 Urine RBC Value : Negative

Your Important Parameters That Need Attention

Hs-CRP

Your Result >10.00 Range <1.00

Inflammation is a protective response of the body to any injury or infection. During inflammation, a protein called C- reactive protein (CRP) is released. CRP can be measured in blood and if it is detected, then it means there is some injury or infection somewhere in the body. Hs-CRP is high sensitive CRP which predicts increased risk of a future heart attack or stroke.

Cause / Effect of this parameter

The commonest reason for elevated CRP could be as simple as a sore throat.

However hs CRP levels may be raised in the following conditions also:

- Risk of Heart Attack
- Burns injury
- Bacterial infections
- Joint inflammation
- Other immune disorders etc.

What can you do about it?

Your doctor can help you to evaluate the cause of high hs CRP and address it.

Following a heart friendly lifestyle (healthy diet, regular exercise) is important to reverse the issue.

What to Avoid:

- Smoking makes the inflammation bad, so stopping smoking is absolutely necessary (if you consume any)
- Avoid stress and get adequate rest and sleep

Did you Know?

Healthy looking people with high hs CRP values are said to be 4 times at higher risk of getting heart issues.

Your Important Parameters That Need Attention continued...

Calcium

Your Result 8.00 Range 8.80-10.60

Calcium is a mineral that plays a key role in maintaining bone health and teeth. The heart, nerves, and blood-clotting systems also need calcium to work.

Cause / Effect of this parameter

People with Calcium deficiency could have the following:

- Weak bones
- Muscle cramps
- Tiredness, Fatigue
- Dental problems
- Depression etc.

Did you Know?

Women need to increase their calcium intake earlier in life than men, starting in middle age.

Also, women need to take calcium supplements during pregnancy and while breast feeding the baby.

What can you do about it?

Please consult a doctor to help you address the calcium deficiency. You maybe suggested calcium supplements by your doctor.

Foods rich in calcium need to be consumed.

Light weight training will be needed to make the bones and muscles stronger specially when there is calcium deficiency.

What to Avoid:

- Reduce your intake of caffeine, soft drinks and alcohol (if you consume any). They all prevent calcium absorption.

Your Important Parameters That Need Attention continued...

Total Bilirubin

Your Result 5.00 Range 0.30-1.20

Bilirubin is a substance which is formed by the breakdown of old red blood cells in the body.

A healthy liver helps remove this bilirubin(yellow color) through stools.

But when the liver has problems, bilirubin can build up in the body to unhealthy levels.

Cause / Effect of this parameter

In some normal people, bilirubin levels are normally mildly increased (< 3 mg/dL). So, elevated bilirubin does not always mean a liver disease.

- Higher levels of bilirubin (more than 3mg/dL) can cause yellowing (Jaundice) of the skin, nails and eyes. This may be due to liver causes (infections, etc.) or problems with the gallbladder (stones, infection etc.) or increased breakdown of red blood cells.

What can you do about it?

Your doctor can help you evaluate the causes of high bilirubin levels and suggest treatment.

Avoid eating unhygienic food & drinking unclean water specially from roadside stalls to prevent catching liver infections (Hepatitis etc.).

Avoid alcohol consumption if you do as it can injure liver.

Did you Know?

Gilbert's Syndrome is a common, harmless condition in which the liver has reduced ability to clear bilirubin. It affects 2 - 10 % of the male population.

Your Important Parameters That Need Attention continued...

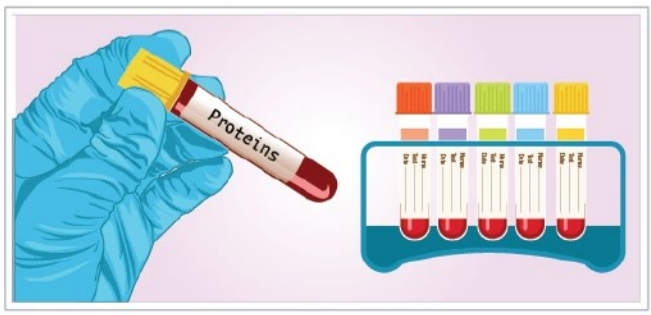
Total Serum Protein

Your Result **4.00** Range 6.40-8.30

Total protein test measures the total amount of two types of proteins in your blood called albumin & globulin.

Albumin plays an important role in body growth and healing. It also helps carry drugs and hormones throughout your body.

Globulin plays an important role in your immunity. It also helps transport nutrition and fight infection.



Cause / Effect of this parameter

Proteins are important for the function of cells and tissues in the body. Reduced protein levels in the blood may sometimes indicate

- Malnutrition (not enough proteins being eaten by the person)
- Kidney disease (proteins lost in urine due to weak kidneys)
- Liver disease etc (not enough proteins produced in weak liver)

Did you Know?

46% of Pre school children and 30% of adults in India have moderate to severe protein calorie malnutrition (UNICEF report).

What can you do about it?

If your protein levels are very low, you might need further testing to determine the cause by your doctor.

Treating the underlying cause may be needed.

High protein diet may help you improve your serum protein level in addition to treatment as advised by your doctor.

What to Avoid:

- Avoid alcohol if you consume any, because drinking alcohol can lower your blood protein levels.

Your Important Parameters That Need Attention continued...

ALT (SGPT)

Your Result 41 Range <35

ALT (alanine aminotransferase) is another enzyme like AST produced mainly by the liver.

ALT test measures the amount of enzyme in your bloodstream.

Increased blood ALT levels are seen when the liver system is involved.

Cause / Effect of this parameter

In most people, liver enzyme levels are mildly and temporarily increased. So, increased liver enzymes do not always mean a serious liver problem.

Very high ALT levels maybe seen in some of the following cases:

- Liver infection (hepatitis)
- Liver injury
- Obstruction due to gallbladder stone
- A lack of blood flow in the liver
- Other causes

What can you do about it?

Consult your doctor who will help you evaluate your elevated liver enzymes.

- If the issue is due to alcohol drinking, it has to be stopped (if you consume any)
- If the issue is due to overweight or obesity related fatty liver, it is important to lose weight and exercise
- If there is a medical cause for the enzyme elevation, your doctor will suggest to you the treatment

Did you Know?

As per WHO, liver disease is the tenth most common cause of death in India.

Your Important Parameters That Need Attention continued...

Serum Albumin

Your Result 1.00 Range 3.50-5.20

Serum albumin is a type of protein in the blood. It plays an important role in growth and healing of the body. It helps in keeping the water or fluids within the blood instead of leaking out. It also carries medicines and hormones throughout the body

Cause / Effect of this parameter

Reduced serum albumin is seen in several conditions like:

- Malnutrition (not eating enough proteins)
- Kidney disease (proteins lost in urine due to weak kidneys)
- Liver disease etc (not enough proteins produced in weak liver)
- Infections
- Burns

Elevated serum albumin maybe seen in dehydration.

What can you do about it?

Consult your doctor to evaluate the cause for low albumin. Treating the cause is important.

You can maintain a healthy weight with exercise and balanced diet (more proteins diet) after consulting your doctor.

Avoid alcohol if you consume any, because drinking alcohol can lower your blood protein levels.

Did you Know?

Serum albumin is a marker of good health. Low serum albumin prolongs recovery when the person falls sick.

Your Diet Dos & Don'ts

The following are covered in your Diet Dos & Don'ts :
Calcium rich | Liver Friendly | Heart safe | Protein rich

1. Fruits and Vegetables

- ✔ Have 4-5 servings of fruits and vegetables daily
- ✔ Consume more green leafy vegetables

2. Cereals

- ✔ Consume millets like ragi, jowar, bajra, etc.
- ✔ Have high fiber cereals like brown rice, red rice, whole wheat, oats, quinoa, etc.
- ⊘ Avoid using refined cereals like maida, corn flour, white rice, etc.

3. Pulses

- ✔ Consume dal with husk (skin)
- ✔ Consume rajma, green mung
- ✔ Have chickpeas (black chana, kabuli chana, green chana)
- ✔ Have soy/soya in the form beans/ nuggets/ flour/ tofu. Soak beans in warm water overnight

Your Diet Dos & Don'ts continued...

4. Dairy

- ✓ Have skimmed or low fat milk and it's products
- ⊘ Avoid high fat or sweetened dairy products like khoa, cheese, sweetened yogurt, malai paneer (instead have low fat paneer)

5. Nuts and Seeds

- ✓ In between meals, have whole nuts like almonds, walnuts, groundnuts, etc. in small quantities.
- ✓ Add flaxseeds or chia/sabza seeds (high in omega 3 fatty acids) to your cereals, salads, yogurt, dal
- ✓ Consume almonds, chia/sabza seeds, sesame seeds, etc. as they are rich in calcium

6. Oils and Fats

- ✓ Consume only 1-2 teaspoons of oil in a day. Some of the good oils are sunflower, rice bran, ground nut, olive oil, etc. Use these oils in rotation rather than sticking to one
- ✓ It is better to use cold pressed oils
- ⊘ Limit consumption of saturated fats like ghee, butter, etc.
- ⊘ Avoid fried foods
- ⊘ Avoid high fat items like peanut butter, mayonnaise, etc.

7. Meats (if you are a non-vegetarian)

- ✓ Eat only egg whites and lean meats like chicken
- ✓ Include 1-2 portions of fatty fish like salmon, mackerel or tuna in a week
- ✓ Have only high quality proteins (chicken, egg, etc.) in small servings and only one at a time
- ⊘ Avoid red meat (mutton, lamb, beef, pork, etc.)
- ⊘ Avoid egg yolk (yellow)
- ⊘ Avoid seafood (crab, prawns, shrimps, etc.)

Your Diet Dos & Don'ts continued...

8. Others

- ✔ Drink 2 to 2.5 liters of water every day after consulting your doctor
- ✔ Reduce salt intake (not more than half teaspoon per day per person).
- ⊘ Avoid alcohol (if you drink)

Consolidated Guidance for You

1. Medical Advice

In view of the reports, please consult a physician who might recommend other specialists:

DOCTOR	CONDITION
Physician	High Hs-CRP, low calcium, abnormal T4, abnormal Sodium
Gastroenterologist	Deranged LFT, low proteins, low albumin

Based on your conditions it is advised to do the following :

- Keep your weight within normal limits
- Stop smoking (if you are)
- Stop drinking alcohol (if you are)

2. Physical Activity Advice

Please consult your doctor to help you with an exercise plan or workout regime.

3. Nutrition Advice

Please follow a diet that is:

Calcium rich | Liver Friendly | Heart safe | Protein rich

(Please refer to Diet Dos and Don'ts for further details)

4. Additional Advice

- Following a heart friendly lifestyle (healthy diet, regular exercise) is important to reverse the risk of heart issues in view of high hs CRP.
- Avoid eating unhygienic food & drinking unclean water specially from roadside stalls to prevent catching liver infections (Hepatitis etc.).
- Light weight training will be needed to make the bones and muscles stronger specially when there is calcium deficiency.

Consolidated Guidance for You continued...

5. Follow Ups

Your doctor knows best - please seek his/her advice for the follow up tests.

After 6 weeks
- hs-CRP

After 3 months
- Liver Function Test

6. Additional Tests

Your doctor knows best - please seek his/her advice regarding the following additional tests.

- ECG, ECHO & TMT
- Fasting Lipid Profile
- Abdominal Ultrasound Scan
- Urine Albumin Creatinine Ratio
- Parathyroid Hormone Level

Your Clinical Data

Colour Guidance

Group colours show the health of your organ/profile. The colours are decided based on how your doctor would decide whether your organ or profile is doing ok after looking at the combination of your tests, age and gender. Ex. If your kidney function profile is green, and your individual tests are yellow/orange/red, then it means that the kidney organ system is normal even though some of its parameters are off.

Glucose

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Fasting Glucose	100.00	mg/dL	70.00-100.00	
Ave. Blood Glucose	94	mg/dL	-	
HbA1C	4.9	%	<5.69	

Liver Function

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Alk. Phosphatase	41	U/L	30-120	
Total Bilirubin	5.00	mg/dL	0.30-1.20	
Direct Bilirubin	0.95	mg/dL	<0.20	
Indirect Bilirubin	4.05	mg/dL	<1.10	
GGTP	24	U/L	<38	
SGOT (AST)	29	U/L	<35	
SGPT (ALT)	41	U/L	<35	
Total Protein	4.00	g/dL	6.40-8.30	
S. Albumin	1.00	g/dL	3.50-5.20	
A:G Ratio	0.33	-	0.90-2.00	
AST/ALT Ratio	0.7	-	-	

Kidney Function

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Calcium	8.00	mg/dL	8.80-10.60	
Uric Acid	4.00	mg/dL	2.60-6.00	

Your Clinical Data continued...

Kidney Function

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Creatinine	0.80	mg/dL	0.51-0.95	
Sodium	150.00	mEq/L	136.00-146.00	
Chloride	100.00	mEq/L	101.00-109.00	
Potassium	4.00	mEq/L	3.50-5.10	

Hematology

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Leucocyte	5.00	thou/mm3	4.00-10.00	
Seg. Neutrophils	54.00	%	40.00-80.00	
Lymphocytes	34.10	%	20.00-40.00	
Monocytes	6.10	%	2.00-10.00	
Eosinophils	5.10	%	1.00-6.00	
Basophils	0.90	%	<2.00	
Abs. Neutrophil	2.70	thou/mm3	2.00-7.00	
Abs. Lymphocyte	1.71	thou/mm3	1.00-3.00	
Abs. Monocyte	0.31	thou/mm3	0.20-1.00	
Abs. Basophil	0.05	thou/mm3	0.01-0.10	
Abs. Eosinophil	0.26	thou/mm3	0.02-0.50	
RBC Count	3.40	mill/mm3	3.80-4.80	
Haemoglobin	13.10	g/dL	11.50-15.00	
PCV	39.30	%	36.00-46.00	
MCV	89.70	fL	80.00-100.00	
MCH	29.30	pg	27.00-32.00	
MCHC	32.60	g/dL	32.00-35.00	
RCDW-CV	14.10	%	11.50-14.50	
MPV	13.20	fL	6.50-12.00	

Your Clinical Data continued...

Hematology

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Platelet Count	152.0	thou/mm3	150.00-450.00	
ESR	28	mm/hr	0-20	

Iron

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Serum Iron	80.00	µg/dl	50.00-170.00	
TIBC	150.00	µg/dl	250.00-425.00	
% Transferrin sat	53.33	%	15.00-50.00	

Pancreas

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Serum Amylase	47.00	U/L	28.00-100.00	

Cholesterol

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Total Cholesterol	125.00	mg/dL	<200.00	
Triglycerides	129.00	mg/dL	<150.00	

Cardiac Marker

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Apolipo A1	129	mg/dL	105.00-205.00	
Apolipo B	105	mg/dL	55.00-130.00	
Apo B/Apo A1 Ratio	0.81	-	0.35-0.98	
HS-CRP	>10.00	mg/L	<1.00	

Your Clinical Data continued...

Thyroid Profile

TEST NAME	RESULT	UNIT	RANGE	LEVEL
T3	0.80	ng/mL	0.60-1.81	
T4	0.70	ug/dL	5.01-12.45	
TSH	1.90	uIU/mL	0.35-5.50	

Vitamins

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Vit B12	410.00	pg/mL	211.00-911.00	
Vitamin D3	129.00	nmol/L	75.00-250.00	

Additional Tests

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Phosphorus	7.00	mg/dL	2.40-4.40	

Urinalysis

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Urine RBC	Negative	-	-	
PH	5	-	-	
Specific Gravity	1.010	-	-	
Urinary Glucose	Negative	-	-	
Urine Ketone	Negative	-	-	
Urinary Protein	Negative	-	-	
Urinary Bilirubin	Negative	-	-	
Urobilinogen	Negative	-	-	
Nitrite	Negative	-	-	

Your Clinical Data continued...

Urinalysis

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Uri. Leucocytes	Negative	-	-	
Casts	None seen	-	-	
Crystals	Negative	-	-	
Epithellial Cell	Few	-	-	
Color	Slight Lemon Yellow	-	-	

Your opinion matters

"We are the first of our kind in the industry, and we'd love to hear how we did to help you understand your health better. Do share your thoughts using the feedback link below or simply drop us a note on our social media pages. Every word goes a long way in motivating our team and delivering better."

Feedback Link: https://bit.ly/2KBWnOO **Social Links:**

References

	Title	Description	Source Link
1.	Blood Glucose	Standard Treatment Guidelines - Govt of India - diabetes-mellitus	http://nhsrcindia.org
		Guidelines by American Diabetes Association	http://www.diabetes.org
2.	Blood Cholesterols	Evaluation and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). NIH Publication No. 01-3305 May 2001	https://www.nhlbi.nih.gov
3.	Blood Tests for Kidney Functions	National Kidney Foundation - "Clinical Practice Guideline"	https://www.kidney.org
4.	Blood Tests for Liver Functions	BMJ Journals - "Evaluation of abnormal liver function tests", Volume 79, Issue 932	https://pmj.bmj.com
		AASLD practice guidelines developed by a panel of experts	https://www.aasld.org
5.	Blood Tests for Thyroid Functions	American Thyroid Association	https://www.thyroid.org
6.	Blood Tests for Hematology Functions	Harrison's Principles of Internal Medicine - 2 volume set Chapter 60: Disorders of Granulocytes and Monocytes, Chapter 111: Disorders of Platelets and Vessel Wall	-
7.	Nutrition	National Health Portal Of India	https://www.nhp.gov.in
		Nutrition Committee of the American Heart Association	https://www.ahajournals.org
		American Heart Association	https://www.heart.org
		Healthy diet - World Health Organization	https://www.who.int
		European Patients Forum (EPF)	https://european-nutrition.org
		2015-2020 Dietary Guidelines - health.gov	https://health.gov
		Preventive cardiology-Cardiological Society of India	http://www.csi.org.in

ⓘ **For certain parameters, international standard reference ranges, driven by international clinical guidelines, are used and hence can be different from the lab reference ranges you see in your lab report**