Thyrocare®

Think Thyroid. Think Thyrocare.

Personal Health Report

A comprehensive analysis of your health using **Blood data**

Prepared for

Nalini Prabha

27/09/2019
DATE OF TEST

27/09/2019
Report released on

Powered By Health VECTORS
www.healthvectors.in

Personal Health Analytics Report

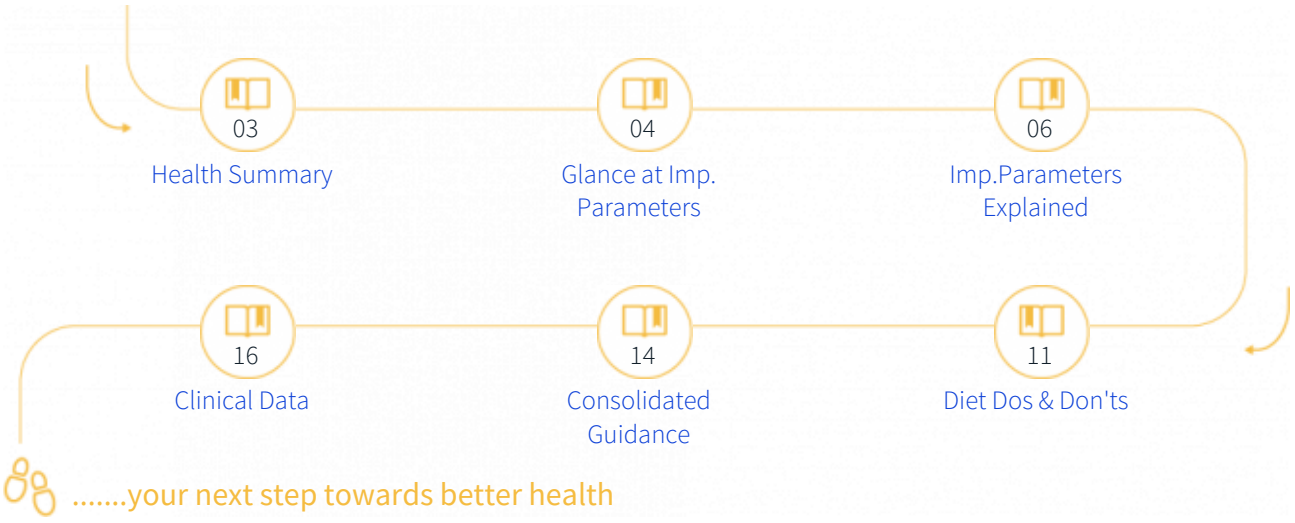
What to expect from this report

- 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



Disclaimer

- Health Vectors will not be liable for any indirect, direct, special, consequential or other damages.
- This report is not intended to replace your doctor. Please make sure you consult your doctor before further actions.
- Please be careful of any food allergies or intolerances that you are sensitive to.
- Analysis uses Blood data only.
- The analyzed information in this report is not applicable for individuals less than 18 years of age and pregnant women.

Your Health Summary

Dear Nalini Prabha,

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:

- Thyroid function test is normal
- Kidney functions have tested normal
- Blood calcium is 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.

- You need to work on your blood sugar
- Uric acid is high
- Quantity of red blood cells is less

Normal
Borderline
Abnormal
Very Abnormal
Partial / Not tested

Your Important Parameters at a Glance

Profile	Important parameters in respective profile
GLUCOSE	HbA1C — Value: 6.8 — Range: < 5.7
LIVER FUNCTION	GGTP — Value: 14.9 — Range: < 38 Alk. Phosphatase — Value: 90.6 — Range: 45-129 Total Bilirubin — Value: 0.45 — Range: 0.3-1.2 Total Protein — Value: 6.98 — Range: 5.7-8.2 SGOT (AST) — Value: 27.8 — Range: < 31 SGPT (ALT) — Value: 27.5 — Range: < 34 S. Albumin — Value: 4.21 — Range: 3.2-4.8
KIDNEY FUNCTION	Calcium — Value: 9.46 — Range: 8.8-10.6 Uric Acid — Value: 7.05 — Range: 3.2-6.1 Creatinine — Value: 0.71 — Range: 0.5-0.8
HEMATOLOGY	Haemoglobin — Value: 11.9 — Range: 12.0-15.0 Platelet Count — Value: 150 — Range: 150-400 Leucocyte — Value: 5.92 — Range: 4.0-10.0
IRON	Serum Iron — Value: 50.4 — Range: 50-170
PANCREAS	Serum Lipase — Value: 60.4 — Range: 5.6-51.3 Serum Amylase — Value: 99.4 — Range: 28-100

Your Important Parameters at a Glance continued...

Profile	Important parameters in respective profile		
CHOLESTEROL	LDL Value : 101 Range : 85-130	HDL Value : 67 Range : 35-80	Triglycerides Value : 135 Range : 25-200
CARDIAC MARKER	HS-CRP Value : 1.7 Range : < = 3	Homocysteine Value : 8.5 Range : < 30	
THYROID PROFILE	TSH Value : 3.78 Range : 0.3-5.5		
VITAMINS	Vitamin D Total Value : 35.88 Range : 30-100	Vit B12 Value : 652 Range : 211-911	

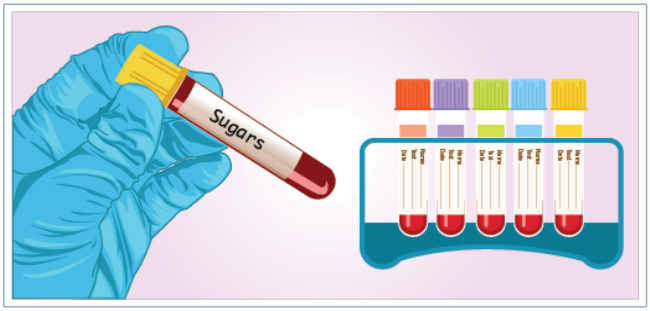
Your Important Parameters That Need Attention

HbA1C and Hb and Iron

	HbA1C	Hb	Iron
Result:	6.8	11.9	50.4
Range:	< 5.7	12.0-15.0	50-170

Hemoglobin is the red color in the RBCs (red blood cells) that carries oxygen to tissues. Sugars present in the blood also attach to it forming glycated hemoglobin, or Hemoglobin A1C (HbA1c).

Hence HbA1c can be measured in the blood to assess the average sugar in the blood for the past 2 to 3 months (the lifespan of a RBC).



Cause / Effect of these parameters

Conditions like Iron deficiency anemia, red cell disorders (e.g. Thalassemia, Sickle cell anemia etc.), blood loss anemia, etc. can increase or decrease the the glycation (bonding of sugar molecules) to hemoglobin causing higher or lower HbA1c values.

Here HbA1c values could lead to a false diagnosis of diabetes. Subsequently, to monitor the control of diabetes, further testing would be required.

What can you do about it?

Please consult a physician to confirm and evaluate further.

Your physician might suggest alternate approaches such as frequent glucose measurements (FBS/PPBS/RBS) or self-glucose home monitoring (glucometer) and fructosamine to assess sugar control.

Did you Know?

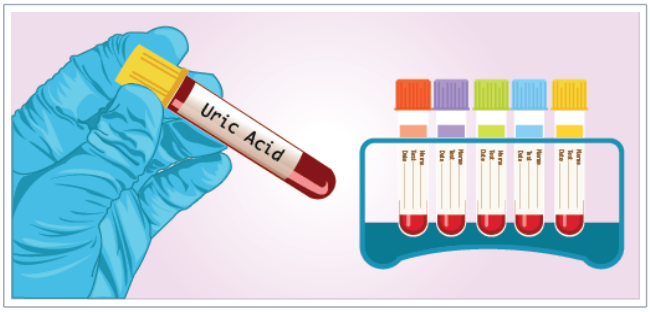
Every tenth person in a population of diabetes mellitus could be anemic in India.

Your Important Parameters That Need Attention continued...

Uric Acid

Your Result 7.05 Range 3.2-6.1

Uric acid is a breakdown product of a particular protein (purine). Certain foods are high in purines and for some people, eating these purine rich foods can increase uric acid.



Cause / Effect of this parameter

High levels of uric acid can cause small joint pains called gout (gouty arthritis).

Rarely, high uric acid has been a cause for kidney stones.

Did you Know?

1 in 5 people have high uric acid. But most people with uric acid do not have problems.

What can you do about it?

Please consult a doctor to evaluate you further.

Drink plenty of water (2-3 liters of water per day) if your doctor allows you.

Avoid foods rich in purine like red meat, soya, sugary beverages, yeast products, alcohol, spinach, mushrooms, cauliflower etc.

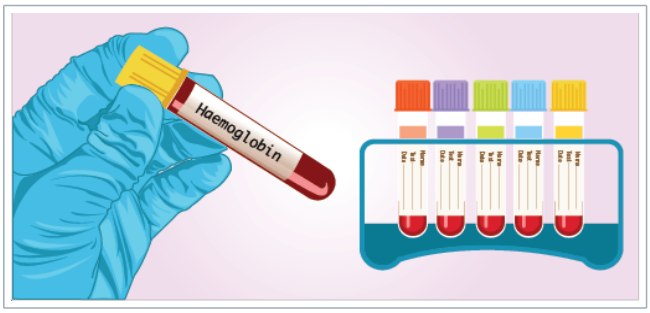
Your Important Parameters That Need Attention continued...

Hemoglobin

Your Result 11.9 Range 12.0-15.0

Hemoglobin is the red color in the blood which is formed by a combination of iron (heme) and a protein (globin).

The job of hemoglobin is to carry oxygen from the lungs to different parts of the body and carry the carbon dioxide generated back to the lungs to be breathed out.



Cause / Effect of this parameter

If the hemoglobin is reduced, it is called anemia causing the person to feel:

- Fatigue or weakness
- Loss of appetite & weight loss
- Shortness of breath on exertion
- Light headedness
- Dizziness
- Fast heartbeat etc

Common causes of anemia in India are Iron deficiency, Vit B12 & Folic acid deficiency etc.

What can you do about it?

Consult your doctor to evaluate the cause of anemia. You maybe given Vitamin or Iron supplements if it is nutritional related anemia. However, there are other causes also.

If you take over the counter medicine, keep your doctor informed because some anti- acidity medicines like ranitidine, pantoprazole, etc can reduce the absorption of iron and vitamins.

What to Avoid:

- Avoid alcohol (if you consume any). It interferes with the absorption of nutrients.
- Avoid smoking (if you do). Cigarette smoke can deactivate vitamin B12.

Did you Know?

In India, 53% of young women suffer from Anemia.

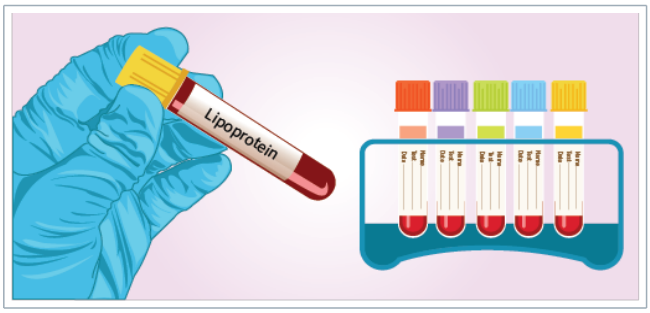
Vegetarians have 4.4 times higher chance of vitamin B12 deficiency.

Your Important Parameters That Need Attention continued...

Lipoprotein(a)

Your Result **37.3** Range **< 30**

Lipoprotein (a) or Lp(a) is one type of lipoprotein that carries cholesterol in the blood. It consists of a low-density lipoprotein (LDL) molecule with another protein (Apolipoprotein (a)) attached to it. This test measures the Lp(a) level in the blood.



Cause / Effect of this parameter

Like LDL-C cholesterol (the 'bad' cholesterol), Lp(a) is considered a risk factor for heart attack and stroke.

Did you Know?

Since about 50% of the people who have heart attacks have a normal cholesterol level, researchers have sought other factors (ex. Lp(a), etc.) that may have an influence on heart disease.

What can you do about it?

Lp(a) does not respond to typical strategies to lower LDL-C cholesterol such as diet, exercise, or most lipid-lowering medications, such as statins. The amount of Lp(a) that you have is determined by the genes you inherited, and it remains relatively constant over your lifetime.

Consult your doctor to further evaluate and advice you.

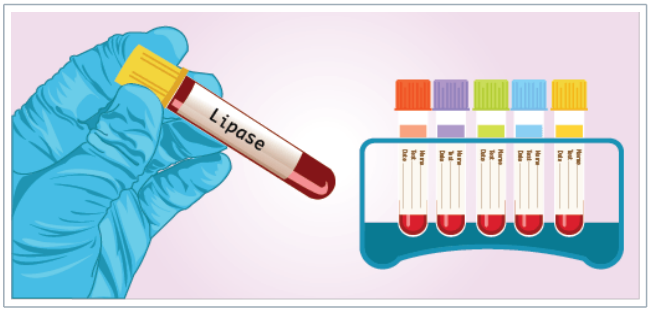
Your Important Parameters That Need Attention continued...

Serum Lipase

Your Result 60.4 Range 5.6-51.3

Amylase and lipase are proteins made largely by the pancreas (organ in the belly that helps to digest food) and help the body in digestion of fats.

Serum amylase and lipase tests are done to find out if there are any issues in the pancreas.



Cause / Effect of this parameter

High levels of serum amylase or lipase could be due to infection / inflammation / injury to the pancreas gland OR due to blockage or injury to one of the tubes in the pancreas which carries digestive juices to the small intestine.

What can you do about it?

Please consult your doctor to evaluate the cause for your increased pancreatic enzymes.

Absolutely avoid alcohol consumption (if you consume any) as it worsens the health of the pancreas.

Did you Know?

The pancreas produces 1000 ml of digestive juices per day.

Your Diet Dos & Don'ts

Nutrition Advice : Heart safe | Iron rich | Cholesterol Care | Low purine | Sugar lowering diet | Pancreas friendly

1. Fruits and Vegetables

- ✔ Have 4-5 servings of fruits and vegetables daily
- ✔ Consume green leafy vegetables, beetroot, citrus fruits (like oranges, grapefruit, lemons) which are rich in folic acid
- ✔ Consume more dried apricots, tomato paste, watermelon, etc. which are rich in iron
- ✔ Consume Vit C rich items like orange, lemon, pineapple, guavas, capsicum, papaya, etc.
- ⊘ Avoid palak
- ⊘ Avoid starchy vegetables like potato, sweet potato, arbi and fruits like mango, chiku and banana
- ⊘ Avoid fruit juices

2. Cereals

- ✔ Consume millets like ragi, jowar, bajra, etc.
- ✔ Have high fiber cereals like brown rice, red rice, whole wheat, oats, quinoa, etc.
- ✔ Have breakfast cereals (cornflakes, wheat flakes, muesli, etc.) fortified with iron
- ✔ Bajra is high in iron
- ⊘ Avoid using refined cereals like maida, corn flour, white rice, etc.
- ⊘ Avoid products containing yeast like breads, pizzas, etc.

3. Pulses

- ⊘ Consume all forms of pulses (like beans, dals, chana, etc.) in limited quantities
- ⊘ Avoid soy/soya in all forms (soya milk, soya beans, soya nuggets, tofu, etc.)

Your Diet Dos & Don'ts continued...

4. Dairy

- ✔ Have skimmed or low fat milk and it's products
- ✔ Have milk and milk products which are additionally fortified with vitamin D everyday
- ⊘ 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
- ⊘ Avoid dry fruits high in sugars like raisins, dates, anjeer, apricots, etc.

6. Oils and Fats

- ✔ Consume only 1-2 teaspoons of oil in a day. Some of the good oils are olive, rice bran, canola, ground nut. 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
- ✔ Have non veg food not more that twice 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 fish
- ⊘ 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
- ✔ Squeeze some lemon (high in vitamin C) on all the iron rich foods like green leafy vegetables, dals, etc. as it enhances iron absorption
- ✔ Have meals at regular intervals. Do not fast or feast
- ✔ Consume 4-5 small meals rather than three big meals
- ⊘ Avoid sweets (they are high in fats and sugar)
- ⊘ Avoid alcohol (if you drink)
- ⊘ Avoid soda drinks and packed fruit juices as they can increase uric acid
- ⊘ Avoid processed food (ex. instant noodles, ready to eat meals, namkeens, ketchup, chips, etc.)

Consolidated Guidance for You

1. Medical Advice

In view of the reports, please consult:

DOCTOR	CONDITION
Physician	High uric acid, high Lp(a)
Endocrinologist	Low hemoglobin, high HbA1c with anemia
Gastroenterologist	High pancreas enzymes

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

Try to move more, get at least 30 minutes of exercise five days a week with moderate intensity if your doctor recommends.

3. Nutrition Advice

Please follow a diet that is:

Heart safe | Iron rich | Cholesterol Care | Low purine | Sugar lowering diet | Pancreas friendly

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

4. Additional Advice

- Keep your doctor informed regarding any over the counter medicines if you are taking because some anti- acidity medicines like ranitidine, pantoprazole etc can reduce the absorption of vitamins and iron.
- Drink plenty of water (2-3 liters of water per day) to avoid kidney stone formation if your doctor allows you.

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
- Uric Acid

After 3 months
- Complete Blood Count
- Peripheral Smear

6. Additional Tests

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

- Abdominal Ultrasound Scan
- Ferritin
- Reticulocyte Count
- Peripheral Smear
- ECG, ECHO & TMT

Your Clinical Data

Glucose

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Ave. Blood Glucose	148	mg/dL	90-120	
HbA1C	6.8	%	< 5.7	
Fructosamine	256.4	umol/L	<= 286	
Blood Ketone	0.31	mg/dL	0.21-2.81	

Liver Function

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Alk. Phosphatase	90.6	U/L	45-129	
Total Bilirubin	0.45	mg/dL	0.3-1.2	
Direct Bilirubin	0.14	mg/dL	< 0.3	
Indirect Bilirubin	0.31	mg/dL	0-0.9	
GGTP	14.9	U/L	< 38	
SGOT (AST)	27.8	U/L	< 31	
SGPT (ALT)	27.5	U/L	< 34	
Total Protein	6.98	g/dL	5.7-8.2	
S. Albumin	4.21	g/dL	3.2-4.8	
Globulin	2.77	g/dL	2.5-3.4	
A:G Ratio	1.52	-	0.9-2	
AST/ALT Ratio	1	-	-	

Kidney Function

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Calcium	9.46	mg/dL	8.8-10.6	
Uric Acid	7.05	mg/dL	3.2-6.1	
BUN	11.29	mg/dL	7-25	
Creatinine	0.71	mg/dL	0.5-0.8	
eGFR	96	mL/min/1.	>= 90	
BUN/ Crea. Ratio	15.9	-	9-23	
Sodium	137.6	mmol/l	136-145	
Chloride	101.5	mmol/l	98-107	
Cystatin C	1	mg/L	<= 1.03	

Hematology

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Leucocyte	5.92	thou/uL	4.0-10.0	
Seg. Neutrophils	56.1	%	40-80	
Lymphocytes	40.7	%	20-40	
Monocytes	2.5	%	0-10	
Eosinophils	0.2	%	0.0-6.0	
Basophils	0.2	%	< 2.0	
IMM.	0.3	%	0-0.4	
Abs. Neutrophil	3.32	thou/uL	2.0-7.0	
Abs. Lymphocyte	2.41	thou/uL	1.0-3.0	
Abs. Monocyte	0.15	thou/uL	0.2-1.0	
Abs. Basophil	0.01	thou/uL	0.02-0.1	
Abs. Eosinophil	0.01	thou/uL	0.02-0.5	
IMM.	0.02	thou/uL	0-0.3	
RBC Count	4.39	mil/uL	3.9-4.8	
NUCLEATED RBC	0.01	thou/uL	< 0.01	
NUCLEATED RBC %	0.01	%	< 0.01	
Haemoglobin	11.9	g/dL	12.0-15.0	
PCV	44.5	%	36-46	
MCV	101.4	fL	83-101	
MCH	27.1	pg	27-32	
MCHC	26.7	g/dL	31.5-34.5	
RCDW-SD	62.4	fL	39-46	
RCDW-CV	16.6	%	11.6-14	
PDW	21.02	fL	9.6-15.2	
MPV	14.5	fL	6.5-12	
Platelet Count	150	thou/uL	150-400	
PLCR	36	%	19.7-42.4	
PLATELETCRIT	0.15	%	0.19-0.39	

Iron

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Serum Iron	50.4	ug/dl	50-170	
TIBC	380	ug/dl	215-535	
% Transferrin sat	13.26	%	13-45	

Your Clinical Data continued...

Pancreas

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Serum Amylase	99.4	U/L	28-100	
Serum Lipase	60.4	U/L	5.6-51.3	

Cholesterol

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Total Cholesterol	177	mg/dL	125-200	
HDL	67	mg/dL	35-80	
LDL	101	mg/dL	85-130	
Triglycerides	135	mg/dL	25-200	
Tot. Choles/HDL	2.6	-	3-5	
LDL/HDL Ratio	1.5	-	1.5-3.5	
VLDL	26.98	mg/dL	5-40	
Non-HDL Cholest	110.3	mg/dL	< 160	

Cardiac Marker

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Homocysteine	8.5	umol/l	< 30	
Lipoprotein(a)	37.3	mg/dL	< 30	
Apolipo A1	151	mg/dL	94-162	
Apolipo B	93	mg/dL	53-138	
Apo B/Apo A1 Ratio	0.6	-	0.38-1.14	
HS-CRP	1.7	mg/L	< = 3	

Thyroid Profile

TEST NAME	RESULT	UNIT	RANGE	LEVEL
T3	120	ng/dL	60-200	
T4	8.4	ug/dL	4.5-12	
TSH	3.78	uIU/mL	0.3-5.5	

Vitamins

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Vit B12	652	pg/mL	211-911	
Vitamin D Total	35.88	ng/mL	30-100	

Elements

TEST NAME	RESULT	UNIT	RANGE	LEVEL
MANGANESE	19.79	ug/L	7.1-20	
MERCURY	0.3	ug/L	< 5	
LEAD	26.8	ug/L	< 150	
BARIUM	2.23	ug/L	< 30	
COBALT	0.38	ug/L	0.1-1.5	
SELENIUM	141.25	ug/L	60-340	
ALUMINIUM	4.87	ug/L	< 30	
SILVER	0.9	ug/L	< 4	
ARSENIC	0.79	ug/L	< 5	
CADMIUM	0.16	ug/L	< 1.5	
CHROMIUM	0.93	ug/L	< 30	
CAESIUM	4.49	ug/L	< 5	
THALLIUM	0.07	ug/L	< 1	
URANIUM	0.04	ug/L	< 1	
STRONTIUM	14.26	ug/L	8-38	
ANTIMONY	12.51	ug/L	0.1-18	
TIN	0.51	ug/L	< 2	
MOLYBDENUM	0.8	ug/L	0.7-4.0	
VANADIUM	0.27	ug/L	< 0.8	
BERYLLIUM	0.01	ug/L	0.1-0.8	
BISMUTH	0.15	ug/L	0.1-0.8	
NICKEL	1.17	ug/L	< 15	

Additional Tests

TEST NAME	RESULT	UNIT	RANGE	LEVEL
Testosterone	10.19	ng/dL	7-60	
Serum Copper	88.3	ug/dL	80-155	
Serum Zinc	194.42	ug/dL	52-286	

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: http://bit.ly/2JHxiU3

Social Links:

References

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

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

NCEP ATP III Cholesterol Guidelines: Third Report of the National Cholesterol Education Program (NCEP).Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (Adult TreatmentPanel 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

Naga Chalasani, Zobair Younossi - "The diagnosis and management of Nonalcoholic Fatty Liver Disease", a practice guidance from the American Association for the study of liver diseases, volume 67, 2018
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 . Blood and Urine Reference Ranges

These reference ranges are provided by the lab which analysed your blood/urine samples.
https://drive.google.com/thyrocare

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