SMART+
HEALTH REPORT

SRL Diagnostics

Personal
Health
Report

Prepared for
Davinder

ACCESSION NO : 0237UG000796
AGE : 53 yrs | **SEX :** Male

SRL DEHRADUN
SRL LIMITEDGround Floor , Paras Tower, Main
Saharanpur Road,Near ITI MajraDEHRADUN,
248001UTTARAKHAND, INDIATel :
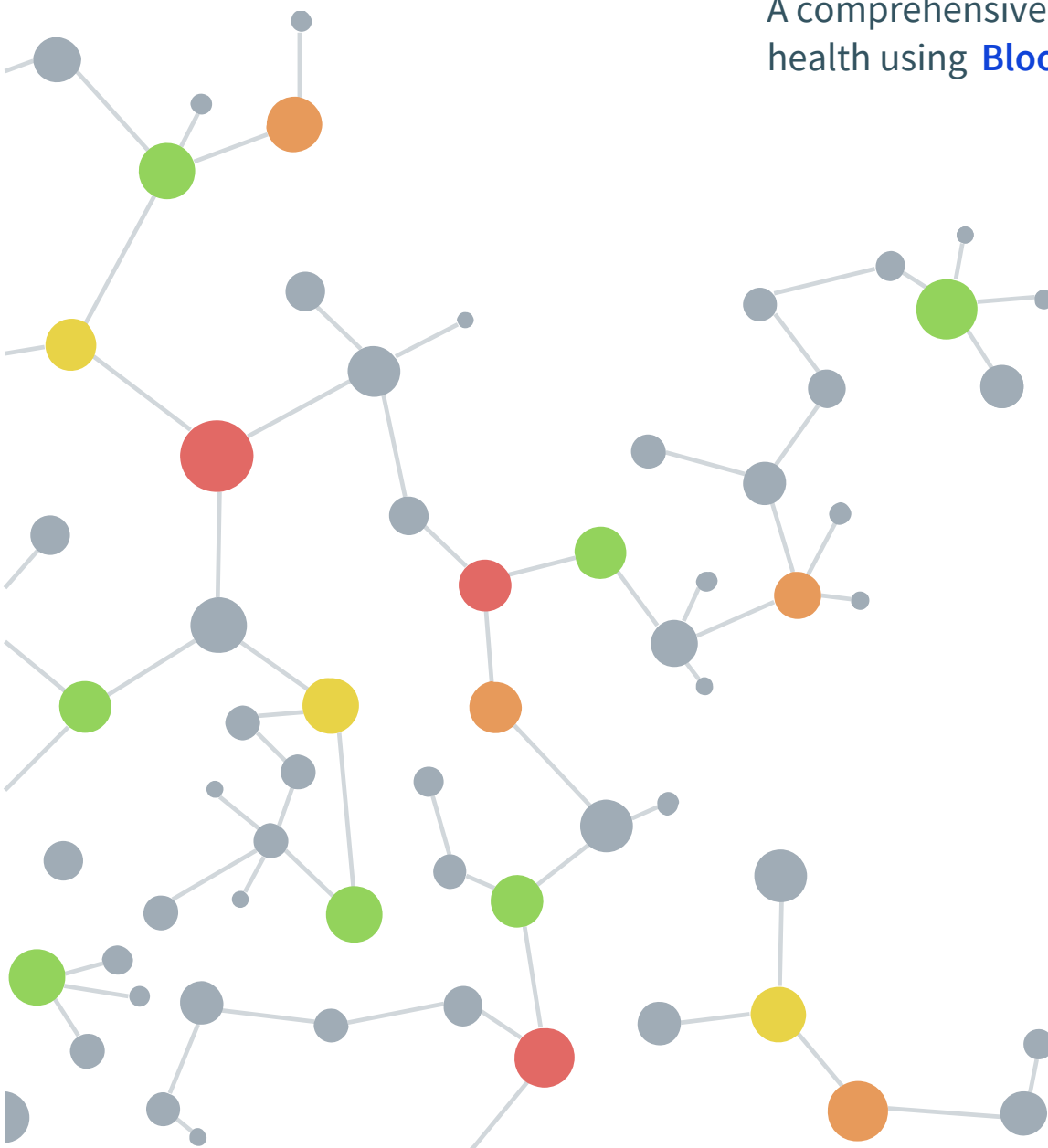8958400555,9690700555, Fax : CIN -
U74899PB1995PLC045956

Complete Care Total
with **Smart+ Health Report**

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

06/07/2021
Date of test

06/07/2021
Report released on

Powered
by **Health**
VECTORS

Your Health Summary - **Complete Care Total with Smart+ Health Report**

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:
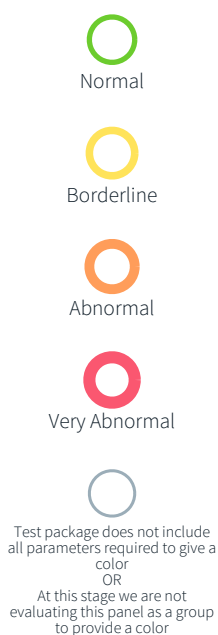
- Thyroid function test is normal
- Blood calcium is normal
- Liver functions have tested normal
- Hemoglobin levels are normal

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

- Sugar tested is borderline
- Vit D is low
- Uric acid is high
- Cholesterol needs attention
- Vit B12 is tested low

Your Health Picture

Legend:
- Normal
- Borderline
- Abnormal
- Very Abnormal
- Test package does not include all parameters required to give a color OR At this stage we are not evaluating this panel as a group to provide a color

Panels shown: KIDNEY FUNCTION, LIVER FUNCTION, THYROID PROFILE, URINALYSIS, CBC, IRON, VITAMINS, GLUCOSE, LIPID PROFILE — around center "Your Health Picture"

SRL Diagnostics

Powered by Health VECTORS

Davinder
NAME

0237UG000796
ACCESSION NO

Male | 53 yrs
BASIC INFO

06/07/2021
DATE OF TEST

Your Important Parameters at a Glance

Profile | Important parameters in respective profile

CBC

HEMOGLOBIN
Value : 15.0
Range : 13-17

RED BLOOD CELL COUNT
Value : 5.00
Range : 4.5-5.5

WHITE BLOOD CELL COUNT
Value : 5.00
Range : 4-10

PLATELET COUNT
Value : 215
Range : 150-410

HEMATOCRIT
Value : 43.8
Range : 40-50

EOSINOPHILS
Value : 02
Range : 1-6

ABSOLUTE EOSINOPHIL COUNT
Value : 0.1
Range : .02-.5

IRON

IRON
Value : 105.0
Range : 65-175

VITAMINS

25 - HYDROXYVITAMIN D
Value : 23.07
Range : 30-100

VITAMIN B12
Value : 182.3
Range : 197-771

GLUCOSE

GLUCOSE, FASTING, PLASMA
Value : 87
Range : 74-99

HbA1c
Value : 6.4
Range : 0-5.7

*international standard reference ranges are used.

LIPID PROFILE

CHOLESTEROL
Value : 244
Range : 0-200

TRIGLYCERIDES
Value : 145
Range : 0-150

HDL CHOLESTEROL
Value : 56
Range : 40-60

LDL
Value : 155
Range : 0-130

*international standard reference ranges are used.

KIDNEY FUNCTION

CREATININE
Value : 0.90
Range : .9-1.3

URIC ACID
Value : 7.8
Range : 3.5-7.2

CALCIUM
Value : 9.3
Range : 8.5-10.1

ⓘ Kidney function is assessed by Serum Creatinine primarily while Uric Acid, Calcium, Serum Albumin, age and gender also contribute.

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Profile | Important parameters in respective profile

LIVER FUNCTION

ASPARTATE AMINOTRANSFERASE
Value: 20
Range: 15-37

ALANINE AMINOTRANSFERASE
Value: 45
Range: 0-45

ALKALINE PHOSPHATASE
Value: 102
Range: 30-120

BILIRUBIN, TOTAL
Value: 0.90
Range: .2-1

GAMMA GLUTAMYL TRANSFERASE (GGT)
Value: 35
Range: 15-85

TOTAL PROTEIN
Value: 7.8
Range: 6.4-8.2

ALBUMIN
Value: 4.3
Range: 3.4-5

THYROID PROFILE

TSH 3RD GENERATION
Value: 1.43
Range: .27-4.2

T3
Value: 90.63
Range: 80-200

T4
Value: 5.36
Range: 5.1-14.1

URINALYSIS

KETONES
Value: NOT DETECTED

GLUCOSE
Value: NOT DETECTED

PROTEIN
Value: NOT DETECTED

NITRITE
Value: NOT DETECTED

SPECIFIC GRAVITY
Value: 1.015
Range: 1.003-1.035

RED BLOOD CELLS
Value: NOT DETECTED

INFECTIOUS DISEASE PANEL

HEPATITIS B SURFACE ANTIGEN
Value: NON REACTIVE

OTHER TESTS

LACTATE DEHYDROGENASE
Value: 197
Range: 100-190

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Some of Your Important Parameters Explained
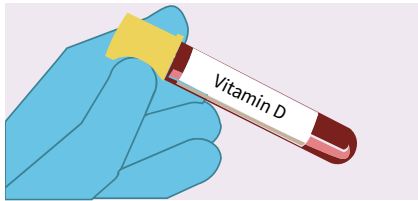
Vitamin D

Result: **23.07**

Range: **30-100**

Vitamin D is called the "sunshine" vitamin. When the sun's light rays enter bare skin, it sets off a reaction in the body that produces vitamin D.

As many of us spend more time indoors, we're lacking in Vitamin D.

Cause / Effect of these parameters

Vitamin D deficiency causes weak bones which we may feel like bone pains, muscle pains or muscle weakness.

What can you do about it?

You have borderline Vit D. Your doctor can help you with supplements of vitamin D.

Exposure to sunlight will cause vitamin D production in the body. Avoid spending more time indoors.

Limit the use of sunscreen lotions.
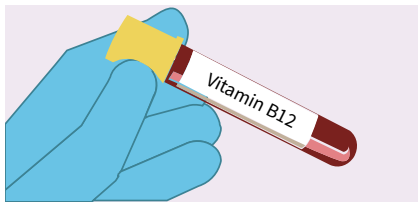
Vit B12

Result: **182.3**

Range: **197-771**

Vit B12 is a vitamin or nutrient which is required by the body's nerves to be healthy and for the production of blood cells. It also is required in making of the DNA (the genetic material) in all the cells of the body.

Vit B12 is found naturally in a variety of non veg foods but veg diet does not contain vit B12 unless they are fortified.

Cause / Effect of these parameters

Reduced Vit B12 can cause:

- Tiredness, fatigue
- Loss of appetite, constipation
- Weight loss
- Anemia
- Depression, confusion, poor memory
- Numbness, tingling in hands & feet etc.

What can you do about it?

Your doctor will help you with Vit B12 supplements. Please complete the course of the supplements.

Eating cereals that are fortified with vitamin B12, folic acid can help you improve if you are a vegetarian.

Some of Your Important Parameters Explained

HbA1c

Result: **6.4**

Range: **0-5.7**

HbA1c is a blood test performed to measure the average sugar in the blood for the past 2 to 3 months.

If the HbA1c has been higher than 6.5% on many occasions, then it is said to have crossed into diabetic ranges.

HbA1c levels higher than normal indicate poor control of blood sugars for the past 2 to 3 months.

Cause / Effect of these parameters

Usually, the symptoms of pre-diabetes can be mild and go unnoticed.

Common symptoms of diabetes are:

- Urinating often and feeling very thirsty
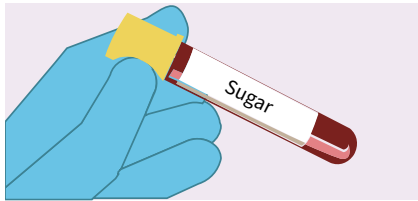- Feeling very hungry and also losing weight- even though you are eating more
- Cuts/bruises that are slow to heal
- Fatigue
- Tingling, pain, or numbness in hands/feet etc.

What can you do about it?

Please consult a doctor to advice further.

- Follow a low carb/low sugars diet.
- Exercise regularly as advised by your doctor.
- Follow up regularly with your treating doctor.
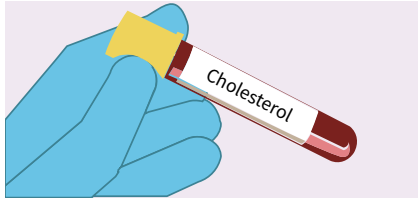
Total Cholesterol

Result: **244**

Range: **0-200**

Cholesterol is a waxy, fat-like substance that is found in the blood. It is required by the body to build cells. But too much cholesterol can be a problem. Cholesterol comes from two sources. The liver makes all the cholesterol we need. The remainder of the cholesterol in the body comes from foods derived from animals.

Cause / Effect of these parameters

Cholesterol travels through the blood on proteins called 'lipoproteins'. Two types of lipoproteins carry cholesterol throughout the body.

- LDL-C (Low Density Lipoprotein Cholesterol) is also known as "bad" cholesterol.
- HDL-C (High density lipoprotein Cholesterol) is also known as "good" cholesterol.

What can you do about it?

You have high levels of Total cholesterol in your body.

You can reduce them by

- Following a healthy diet, keeping your weight in control, limiting your sugar intake
- Eating more fibre
- Exercising regularly (after consulting a doctor)
- Consume cholesterol lowering medicines if your doctor advises you

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Some of Your Important Parameters Explained

LDL

Result: **155**

Range: **0-130**

Cholesterol is a waxy, fat-like substance that is found in the blood.

LDL-C (Low Density Lipoprotein Cholesterol) is a type of cholesterol and is also called as "bad" cholesterol.

Increased levels of LDL-C in blood causes clogging of blood vessels to the heart and brain over time.
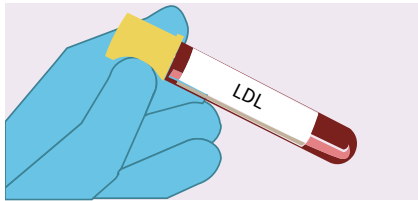
Cause / Effect of these parameters

As a person ages, bad cholesterol in blood can lead to formation of blockages in the blood vessels of the heart or brain which can in old age lead to heart attack or stroke.

What can you do about it?

The elevated LDL-C can be reduced by

- Low cholesterol diet
- Increasing physical activity
- Reducing weight
- Cholesterol lowering medicines if recommended by doctor
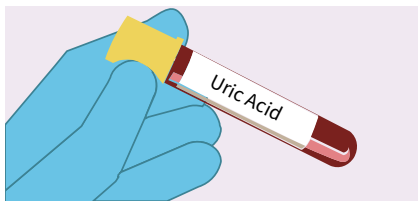
Uric Acid

Result: **7.8**

Range: **3.5-7.2**

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 these parameters

High uric acid level can be a precipitating factor for gout and renal stones as well as a strong risk factor for Metabolic Syndrome and Cardiovascular disease.

High intake of fructose-rich industrialized food and high alcohol intake (particularly beer) seem to influence plasma uric acid levels.

What can you do about it?

Please consult a doctor to evaluate you further.

Avoid foods rich in purine like red meat, organ meat, shellfish like mussels, fishes like sardines, anchovies, sugary beverages, high fat dairy products and alcohol.

SRL Diagnostics

Normal   Borderline   Abnormal   Very Abnormal

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DATE OF TEST

Your Diet Dos & Don'ts

The following are covered in your Diet Dos & Don'ts :

Low Sugar Diet | Cholesterol lowering | Low purine | Vitamin D rich | Vit B12 rich | Immunity improving diet

Fruits and Vegetables

✔ Have 4-5 servings of fruits and vegetables daily

✔ Consume butter fruit/avocado as it is known to increase HDL and decrease LDL

✔ Include mushrooms (if you consume) in your diet, as they are rich in vitamin D

✔ Vitamin C rich fruits and vegetables like capsicum, sweet lime, guava, kiwi, lemons are essential to improve immunity

✔ Vegetables and fruits like mushroom, beans, grapes, lettuce are rich in B complex vitamins, chromium and selenium which help improve immunity

✔ Broccoli and spinach are rich in chromium, selenium and B complex vitamins which are essential for immunity

✔ Consume 1-2 garlic cloves in the morning on empty stomach as it helps increase good cholesterol and reduce bad cholesterol

✔ Consume high fiber vegetables like okra, eggplant (brinjal), carrots etc. for cholesterol management

✔ Foods like pumpkin, garlic, fenugreek leaves (methi), strawberries are beneficial for better sugar control

⊘ Avoid starchy foods like potato, sweet potato, mango, chickoo/sapota, banana etc. for better blood sugar management

⊘ Rather than drinking fresh fruit juices, it is preferable to eat the fruit
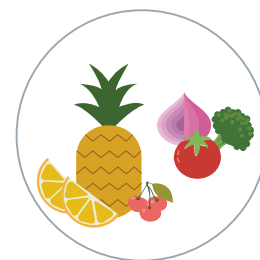
Cereals

✔ Consume millets like ragi, jowar, bajra, etc.

✔ Have high fiber cereals like brown rice, red rice, whole wheat, oats, quinoa etc.

✔ Have a wholesome breakfast cereal high in fibre like broken wheat/oatmeal/quinoa porridge whole wheat chapati/multigrain sandwich

✔ Whole grains like wheat, barley, oats, brown rice are rich sources of Zinc, Chromium, B complex vitamins that help improve immunity.

⊘ Avoid using refined cereals like maida, corn flour, white rice, etc.

⊘ Avoid products containing yeast like breads, pizzas, etc.

Your Diet Dos & Don'ts

Pulses

✓ Consume pulses like lobia, rajma, moong, kabuli channa and dals as they are rich sources of Zinc, selenium and B complex vitamins that help improve immunity

⊘ 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.)

Dairy

✓ Have skimmed or low fat milk and its products like curd, paneer etc.

✓ 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)

⊘ While having milk do not add coffee or tea decoction to it

Nuts and Seeds

✓ You can snack on whole nuts like almonds, walnuts, groundnuts, etc. in small quantities between meals.

✓ Add flaxseeds, chia seeds or sabja seeds (high in omega 3 fatty acids) to your cereals, salads, yogurt, dal

✓ Nuts and seeds like almonds, cashew nuts, sesame seeds, sunflower seeds are rich in nutrients like Zinc, Selenium, B complex vitamins that help to improve immunity

⊘ Avoid dry fruits high in sugars like raisins, dates, anjeer, apricots, etc.

⊘ Avoid consumption of salted or fried nuts
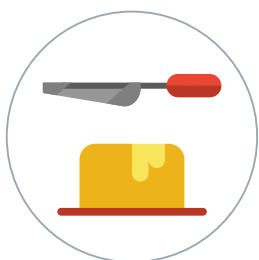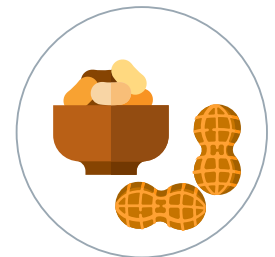
Oils and Fats

✓ 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

✓ Keep oil consumption to not more than half litre per person per month

⊘ Limit consumption of saturated fats like ghee, butter, etc.

⊘ Avoid fried foods

⊘ Avoid high fat items like peanut butter, mayonnaise, etc.

Your Diet Dos & Don'ts

Meats

✔ Eat high quality lean proteins which are normally present in egg whites and chicken

✔ Have non veg food not more than twice a week

✔ Lean poultry meat like chicken is rich in nutrients like zinc, selenium and B complex vitamins that are essential to improve immunity

⊘ Avoid red meat (mutton, lamb, beef, pork, etc.)

⊘ Avoid fish and shell fish in gout

⊘ Meat should be properly cooked. Avoid raw/ undercooked meats

⊘ Avoid consumption of cured meats like dry salted fish or meat, sausages, salami, etc. as they are very rich in salts, fats and artificial preservatives

⊘ Avoid egg yolk (yellow)

⊘ Avoid shellfish(crab, prawns, shrimps, etc.)
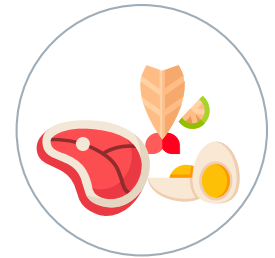
General Advice

✔ Have meals at regular intervals. Do not fast or feast

✔ Consume 4-5 small meals rather than three big meals and avoid skipping meals

✔ If you feel hungry between meals, it's okay to snack, but just remember to eat healthy snacks like fruit bowl, sprouts salad, nuts, etc.

✔ Drink at least 8-10 glasses of water every day if your doctor allows

✔ Use healthy cooking methods such as steaming, boiling, roasting, stewing and poaching

✔ Read food labels and choose your foods wisely. Limit consumption of foods that have high quantity of preservatives, salt/sodium, trans fats, added sugars, artificial sweeteners, colors and additives

✔ Keep at least a 2 hours gap between your last meal and bedtime

✔ Pay attention to the food you eat, stop when you feel full and do not overeat

✔ Include in your diet light foods like clear soups, lemon juice (without sugar), seasonings like pepper, mint, garlic , curry leaves

⊘ 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.)

⊘ Avoid sugar and other refined carbohydrates

⊘ Limit consumption of snacks such as candies, french fries, instant noodles, ice-cream and soft drinks because they contain many calories that not only cause obesity but also affect our appetite and hinder the intake of nutritious food

Your Next Steps

Doctor Consultation

In view of the reports, please consult:

DOCTOR	CONDITION
Physician	High Sugar,high cholesterol,high uric acid,low vit D,low Vit B12,high LDH

Other Advice

- Regularly follow up with your doctor as controlling sugars is an ongoing process.
- Avoid gaining weight, eating sweets, limit stress and sleep adequately.

Follow Ups

Please check your weight and blood pressure on regular basis. Your doctor knows best - please seek his/her advice for the follow up tests.

After 6 weeks
- Uric Acid

After 3 months
- HbA1c
- Fasting Lipid Profile

After 6 months
- Vit D
- Vit B12

Additional Tests

Your doctor knows best - please seek his/her advice regarding the following additional tests if not performed.

- Apo A1, Apo B
- Lipoprotein(a)
- hs-CRP
- Intrinsic Factor Antibody
- Folic Acid

How to improve my immunity?

"Our immune system is our first line of defense."

- **Exercise** - If you exercise at least five times a week, you cut the risk of colds by nearly half compared to people who are largely sedentary. Even if you get sick, you will have less severe symptoms

- **Sleep** - Those who sleep less than five hours per night have 4.5 times more chances of developing a cold than those who sleep more than seven hours

- **Diet** - 70% of the immune system is housed in the gut system. To help this, eat healthy foods like green leafy vegetables, citrus fruits, nuts, berries, fish, whole grains, garlic, foods rich in Zinc, Selenium, vitamins A, D, C and E

- Stress less, practice meditation, avoid smoking, alcohol and other addictive substances

— X —

THE END OF SMART HEALTH REPORT
Your laboratory diagnostic report continues...

SRL Diagnostics

PATIENT NAME : DAVINDER   PATIENT ID :   DAVIM927186790

ACCESSION NO :   0237UG000796   AGE :   53 Years   SEX : Male   DATE OF BIRTH :

DRAWN :   06/07/2021 09:00   RECEIVED :   06/07/2021 13:11   REPORTED :   06/07/2021 16:21

REFERRING DOCTOR : SELF   CLIENT PATIENT ID : L#1356

Test Report Status _Final_	Results	Biological Reference Interval	Units

COMPLETE CARE TOTAL WITH SMART+
HEALTH REPORT
BLOOD COUNTS

HEMOGLOBIN	15.0	13.0 - 17.0	g/dL
RED BLOOD CELL COUNT	5.00	4.5 - 5.5	mil/µL
WHITE BLOOD CELL COUNT	5.00	4.0 - 10.0	thou/µL
PLATELET COUNT	215	150 - 410	thou/µL
RBC AND PLATELET INDICES			
HEMATOCRIT	43.8	40 - 50	%
MEAN CORPUSCULAR VOL	87.0	83 - 101	fL
MEAN CORPUSCULAR HGB.	30.0	27.0 - 32.0	pg
MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION	34.2	31.5 - 34.5	g/dL
RED CELL DISTRIBUTION WIDTH	14.6	High 11.6 - 14.0	%
MEAN PLATELET VOLUME	8.2	6.8 - 10.9	fL
WBC DIFFERENTIAL COUNT - NLR			
SEGMENTED NEUTROPHILS	65	40 - 80	%
ABSOLUTE NEUTROPHIL COUNT	3.25	2.0 - 7.0	thou/µL
LYMPHOCYTES	30	20 - 40	%
ABSOLUTE LYMPHOCYTE COUNT	1.5	1.0 - 3.0	thou/µL
EOSINOPHILS	02	1 - 6	%
ABSOLUTE EOSINOPHIL COUNT	0.1	0.02 - 0.50	thou/µL
MONOCYTES	03	2 - 10	%
ABSOLUTE MONOCYTE COUNT	0.15	Low 0.2 - 1.0	thou/µL
BASOPHILS	00	< 1 - 2	%
ABSOLUTE BASOPHIL COUNT	0	Low 0.02 - 0.10	thou/µL
DIFFERENTIAL COUNT PERFORMED ON:	EDTA SMEAR		
ERYTHRO SEDIMENTATION RATE, BLOOD			
SEDIMENTATION RATE (ESR)	16	High 0 - 14	mm at 1 hr

PERIPHERAL SMEAR EXAM, EDTA WHOLE BLOOD

RBC	PREDOMINANTLY NORMOCYTIC NORMOCHROMIC
WBC	WBCS ARE NORMAL IN NUMBER & MORPHOLOGY
PLATELETS	PLATELETS ARE ADEQUATE IN NUMBER
IMPRESSION	NORMOCYTIC NORMOCHROMIC PICTURE

TOTAL IRON BINDING CAPACITY, SERUM

IRON	105.0	65 - 175	µg/dL

SRL Diagnostics

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ACCESSION NO : 0237UG000796   AGE : 53 Years   SEX : Male   DATE OF BIRTH :

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Test Report Status Final	Results	Biological Reference Interval	Units
TOTAL IRON BINDING CAPACITY	333.0	250 - 450	µg/dL
% SATURATION	31.5	13 - 45	%
GLUCOSE, FASTING, PLASMA			
GLUCOSE, FASTING, PLASMA	87	74 - 99	mg/dL
GLYCOSYLATED HEMOGLOBIN, EDTA WHOLE BLOOD			
GLYCOSYLATED HEMOGLOBIN (HBA1C)	6.4 High	Non-diabetic: < 5.7 Pre-diabetics: 5.7 - 6.4 Diabetics: > or = 6.5 ADA Target: 7.0 Action suggested: > 8.0	%
MEAN PLASMA GLUCOSE	137.0 High	< 116.0	mg/dL
LIVER FUNCTION PROFILE, SERUM			
BILIRUBIN, TOTAL	0.90	0.2 - 1.0	mg/dL
BILIRUBIN, DIRECT	0.10	0.0 - 0.2	mg/dL
BILIRUBIN, INDIRECT	0.80	0.1 - 1.0	mg/dL
TOTAL PROTEIN	7.8	6.4 - 8.2	g/dL
ALBUMIN	4.3	3.4 - 5.0	g/dL
GLOBULIN	3.5	2.0 - 4.1	g/dL
ALBUMIN/GLOBULIN RATIO	1.2	1.0 - 2.1	RATIO
ASPARTATE AMINOTRANSFERASE (AST/SGOT)	20	15 - 37	U/L
ALANINE AMINOTRANSFERASE (ALT/SGPT)	45	< 45.0	U/L
ALKALINE PHOSPHATASE	102	30 - 120	U/L
GAMMA GLUTAMYL TRANSFERASE (GGT)	35	15 - 85	U/L
LACTATE DEHYDROGENASE	197 High	100 - 190	U/L
25 - HYDROXYVITAMIN D, SERUM			
25 - HYDROXYVITAMIN D	23.07 Low	Deficiency: < 20.0 Insufficiency: 20.0 - < 30.0 Sufficiency: 30.0 -100.0 Toxicity > 100.0	ng/mL
CALCIUM, SERUM			
CALCIUM	9.3	8.5 - 10.1	mg/dL
VITAMIN B12 LEVEL, SERUM			
VITAMIN B12	182.3 Low	197 - 771	pg/mL
THYROID PANEL, SERUM			
T3	90.63	80.00 - 200.00	ng/dL

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Test Report Status Final	Results		Biological Reference Interval	Units
T4	5.36		5.10 - 14.10	µg/dl
TSH 3RD GENERATION	1.43		0.27 - 4.20	µIU/mL
CORONARY RISK PROFILE (LIPID PROFILE), SERUM				
CHOLESTEROL	244	High	< 200 Desirable 200 - 239 Borderline High >/= 240 High	mg/dL
TRIGLYCERIDES	145		< 150 Normal 150 - 199 Borderline High 200 - 499 High >/= 500 Very High	mg/dL
HDL CHOLESTEROL	56		< 40 Low >/= 60 High	mg/dL
DIRECT LDL CHOLESTEROL	155	High	< 100 Optimal 100 - 129 Near or above optimal 130 - 159 Borderline High 160 - 189 High >/= 190 Very High	mg/dL
NON HDL CHOLESTEROL	188	High	Desirable: Less than 130 Above Desirable: 130 - 159 Borderline High: 160 - 189 High: 190 - 219 Very high: > or = 220	mg/dL
CHOL/HDL RATIO	4.4		3.3 - 4.4 Low Risk 4.5 - 7.0 Average Risk 7.1 - 11.0 Moderate Risk > 11.0 High Risk	
LDL/HDL RATIO	2.8		0.5 - 3.0 Desirable/Low Risk 3.1 - 6.0 Borderline/Moderate Risk > 6.0 High Risk	
VERY LOW DENSITY LIPOPROTEIN	29.0		< /= 30.0	mg/dL
SERUM BLOOD UREA NITROGEN				
BLOOD UREA NITROGEN	10		6 - 20	mg/dL
CREATININE, SERUM				
CREATININE	0.90		0.90 - 1.30	mg/dL
BUN/CREAT RATIO				
BUN/CREAT RATIO	11.11		5.00 - 15.00	
URIC ACID, SERUM				
URIC ACID	7.8	High	3.5 - 7.2	mg/dL
TOTAL PROTEIN, SERUM				
TOTAL PROTEIN	7.8		6.4 - 8.2	g/dL
ALBUMIN, SERUM				
ALBUMIN	4.3		3.4 - 5.0	g/dL

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PATIENT NAME : DAVINDER

PATIENT ID : DAVIM927186790

ACCESSION NO : 0237UG000796   AGE : 53 Years   SEX : Male   DATE OF BIRTH :

DRAWN : 06/07/2021 09:00   RECEIVED : 06/07/2021 13:11   REPORTED : 06/07/2021 16:21

REFERRING DOCTOR : SELF   CLIENT PATIENT ID : L#1356

Test Report Status Final	Results	Biological Reference Interval	Units
GLOBULIN			
GLOBULIN	3.5	2.0 - 4.1	g/dL
ELECTROLYTES (NA/K/CL), SERUM			
SODIUM	138	137 - 145	mmol/L
POTASSIUM	4.0	3.6 - 5.0	mmol/L
CHLORIDE	105	98 - 107	mmol/L
URINALYSIS			
COLOR	PALE YELLOW		
APPEARANCE	CLEAR		
PH	6.0	4.7 - 7.5	
SPECIFIC GRAVITY	1.015	1.003 - 1.035	
GLUCOSE	NOT DETECTED	NOT DETECTED	
PROTEIN	NOT DETECTED	NOT DETECTED	
KETONES	NOT DETECTED	NOT DETECTED	
BLOOD	NOT DETECTED	NOT DETECTED	
BILIRUBIN	NOT DETECTED	NOT DETECTED	
UROBILINOGEN	NORMAL	NORMAL	
NITRITE	NOT DETECTED	NOT DETECTED	
WBC	0-1	0-5	/HPF
EPITHELIAL CELLS	0-1	0-5	/HPF
RED BLOOD CELLS	NOT DETECTED	NOT DETECTED	/HPF
CASTS	NOT DETECTED		
CRYSTALS	NOT DETECTED		
BACTERIA	NOT DETECTED	NOT DETECTED	
MAGNESIUM, SERUM			
MAGNESIUM	2.2	1.8 - 2.4	mg/dL
HEPATITIS B SURFACE ANTIGEN, SERUM			
HEPATITIS B SURFACE ANTIGEN	NON REACTIVE	NON REACTIVE	
PATIENT VALUE	0.32	Ref. ranges for Electrochemiluminescence < 0.90 (Non Reactive) > or = 1.00 (Reactive)	IU/mL

Interpretation(s)
BLOOD COUNTS-The cell morphology is well preserved for 24hrs. However after 24-48 hrs a progressive increase in MCV and HCT is observed leading to a decrease in MCHC.
A direct smear is recommended for an accurate differential count and for examination of RBC morphology.
RBC AND PLATELET INDICES-The cell morphology is well preserved for 24hrs. However after 24-48 hrs a progressive increase in MCV and HCT is observed leading to a
decrease in MCHC. A direct smear is recommended for an accurate differential count and for examination of RBC morphology.
WBC DIFFERENTIAL COUNT - NLR-

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The optimal threshold of 3.3 for NLR showed a prognostic possibility of clinical symptoms to change from mild to severe in COVID positive patients. When age = 49.5 years old and NLR = 3.3, 46.1% COVID-19 patients with mild disease might become severe. By contrast, when age < 49.5 years old and NLR < 3.3, COVID-19 patients tend to show mild disease.
(Reference to - The diagnostic and predictive role of NLR, d-NLR and PLR in COVID-19 patients A.-P. Yang, et al. International Immunopharmacology 84 (2020) 106504
This ratio element is a calculated parameter and out of NABL scope.
ERYTHRO SEDIMENTATION RATE, BLOOD-Erythrocyte sedimentation rate (ESR) is a non - specific phenomena and is clinically useful in the diagnosis and monitoring of disorders associated with an increased production of acute phase reactants. The ESR is increased in pregnancy from about the 3rd month and returns to normal by the 4th week post partum. ESR is influenced by age, sex, menstrual cycle and drugs (eg. corticosteroids, contraceptives). It is especially low (0 -1mm) in polycythaemia, hypofibrinogenemia or congestive cardiac failure and when there are abnormalities of the red cells such as poikilocytosis, spherocytosis or sickle cells.

Reference :
1. Nathan and Oski's Haematology of Infancy and Childhood, 5th edition
2. Paediatric reference intervals. AACC Press, 7th edition. Edited by S. Soldin
3. The reference for the adult reference range is "Practical Haematology by Dacie and Lewis, 10th Edition"
TOTAL IRON BINDING CAPACITY, SERUM-Total iron binding capacity (TIBC) measures the blood's capacity to bind iron with transferrin and thus is an indirect way of assessing transferrin level.
Taken together with serum iron and percent transferrin saturation this test is performed when they is a concern about anemia, iron deficiency or iron deficiency anemia. However, because the liver produces transferrin, alterations in liver function (such as cirrhosis, hepatitis, or liver failure) must be considered when performing this test.
Increased in:
- iron deficiency
- acute and chronic blood loss
- acute liver damage
- progesterone birth control pills
Decreased in:
- hemochromatosis
- cirrhosis of the liver
- thalassemia
- anemias of infection and chronic diseases
- nephrosis
- hyperthyroidism
The percent Transferrin saturation = Serum Iron/TIBC x 100
Unsaturated Binding Capacity (UIBC)=TIBC - Serum Iron.
Limitations: Estrogens and oral contraceptives increase TIBC and Asparaginase, chloramphenicol, corticotropin, cortisone and testosterone decrease the TIBC level.

Reference:
1.Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, edited by Carl A Burtis, Edward R.Ashwood, David E Bruns, 4th Edition, Elsevier publication, 2006, 563, 1314-1315.
2. Wallach's Interpretation of Diagnostic tests, 9th Edition, Ed Mary A Williamson and L Michael Snyder. Pub Lippincott Williams and Wilkins, 2011, 234-235.
GLUCOSE, FASTING, PLASMA-ADA 2012 guidelines for adults as follows:
Pre-diabetics: 100 - 125 mg/dL
Diabetic: > or = 126 mg/dL

(Ref: Tietz 4th Edition & ADA 2012 Guidelines)
GLYCOSYLATED HEMOGLOBIN, EDTA WHOLE BLOOD-
Glycosylated hemoglobin (GHb) has been firmly established as an index of long-term blood glucose concentrations and as a measure of the risk for the development of complications in patients with diabetes mellitus. Formation of GHb is essentially irreversible, and the concentration in the blood depends on both the life span of the red blood cell (average 120 days) and the blood glucose concentration. Because the rate of formation of GHb is directly proportional to the concentration of glucose in the blood, the GHb concentration represents the integrated values for glucose over the preceding 6-8 weeks.
Any condition that alters the life span of the red blood cells has the potential to alter the GHb level. Samples from patients with hemolytic anemias will exhibit decreased glycated hemoglobin values due to the shortened life span of the red cells. This effect will depend upon the severity of the anemia. Samples from patients with polycythemia or post-splenectomy may exhibit increased glycated hemoglobin values due to a somewhat longer life span of the red cells.
Glycosylated hemoglobins results from patients with HbSS, HbCC, and HbSC and HbD must be interpreted with caution, given the pathological processes, including anemia, increased red cell turnover, transfusion requirements, that adversely impact HbA1c as a marker of long-term glycemic control. In these conditions, alternative forms of testing such as glycated serum protein (fructosamine) should be considered.
"Targets should be individualized More or less stringent glycemic goals may be appropriate for individual patients. Goals should be individualized based on duration of diabetes, age/life expectancy, comorbid conditions, known CVD or advanced microvascular complications, hypoglycemia unawareness, and individual patient considerations."

References
1. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, edited by Carl A Burtis, Edward R.Ashwood, David E Bruns, 4th Edition, Elsevier publication, 2006, 879-884.
2. Forsham PH. Diabetes Mellitus: A rational plan for management. Postgrad Med 1982, 71,139-154.
3. Mayer TK, Freedman ZR: Protein glycosylation in Diabetes Mellitus: A review of laboratory measurements and their clinical utility. Clin Chim Acta 1983, 127, 147-184.
LIVER FUNCTION PROFILE, SERUM-LIVER FUNCTION PROFILE
Bilirubin is a yellowish pigment found in bile and is a breakdown product of normal heme catabolism. Bilirubin is excreted in bile and urine, and elevated levels may give yellow discoloration in jaundice.Elevated levels results from increased bilirubin production (eg, hemolysis and ineffective erythropoiesis), decreased bilirubin excretion (eg, obstruction and hepatitis), and abnormal bilirubin metabolism (eg, hereditary and neonatal jaundice). Conjugated (direct) bilirubin is elevated more than unconjugated (indirect) bilirubin in Viral hepatitis, Drug reactions, Alcoholic liver disease Conjugated (direct) bilirubin is also elevated more than unconjugated (indirect) bilirubin when there is some kind of blockage of the bile ducts like in Gallstones getting into the bile ducts, tumors &Scarring of the bile ducts. Increased unconjugated (indirect) bilirubin

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PATIENT NAME : DAVINDER

PATIENT ID : DAVIM927186790

ACCESSION NO : 0237UG000796   AGE : 53 Years   SEX : Male   DATE OF BIRTH :

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may be a result of Hemolytic or pernicious anemia, Transfusion reaction & a common metabolic condition termed Gilbert syndrome, due to low levels of the enzyme that attaches sugar molecules to bilirubin.
AST is an enzyme found in various parts of the body. AST is found in the liver, heart, skeletal muscle, kidneys, brain, and red blood cells, and it is commonly measured clinically as a marker for liver health. AST levels increase during chronic viral hepatitis, blockage of the bile duct, cirrhosis of the liver, liver cancer, kidney failure, hemolytic anemia, pancreatitis, hemochromatosis. AST levels may also increase after a heart attack or strenuous activity. ALT test measures the amount of this enzyme in the blood. ALT is found mainly in the liver, but also in smaller amounts in the kidneys, heart, muscles, and pancreas. It is commonly measured as a part of a diagnostic evaluation of hepatocellular injury, to determine liver health. AST levels increase during acute hepatitis, sometimes due to a viral infection, ischemia to the liver, chronic hepatitis, obstruction of bile ducts, cirrhosis.
ALP is a protein found in almost all body tissues. Tissues with higher amounts of ALP include the liver, bile ducts and bone. Elevated ALP levels are seen in Biliary obstruction, Osteoblastic bone tumors, osteomalacia, hepatitis, Hyperparathyroidism, Leukemia, Lymphoma, Paget''''''''s disease, Rickets, Sarcoidosis etc. Lower-than-normal ALP levels seen in Hypophosphatasia, Malnutrition, Protein deficiency, Wilson''''''''s disease. GGT is an enzyme found in cell membranes of many tissues mainly in the liver, kidney and pancreas. It is also found in other tissues including intestine, spleen, heart, brain and seminal vesicles. The highest concentration is in the kidney, but the liver is considered the source of normal enzyme activity. Serum GGT has been widely used as an index of liver dysfunction. Elevated serum GGT activity can be found in diseases of the liver, biliary system and pancreas. Conditions that increase serum GGT are obstructive liver disease, high alcohol consumption and use of enzyme-inducing drugs etc. Serum total protein, also known as total protein, is a biochemical test for measuring the total amount of protein in serum. Protein in the plasma is made up of albumin and globulin. Higher-than-normal levels may be due to: Chronic inflammation or infection, including HIV and hepatitis B or C, Multiple myeloma, Waldenstrom''''''''s disease. Lower-than-normal levels may be due to: Agammaglobulinemia, Bleeding (hemorrhage), Burns, Glomerulonephritis, Liver disease, Malabsorption, Malnutrition, Nephrotic syndrome, Protein-losing enteropathy etc. Human serum albumin is the most abundant protein in human blood plasma. It is produced in the liver. Albumin constitutes about half of the blood serum protein. Low blood albumin levels (hypoalbuminemia) can be caused by: Liver disease like cirrhosis of the liver, nephrotic syndrome, protein-losing enteropathy, Burns, hemodilution, increased vascular permeability or decreased lymphatic clearance, malnutrition and wasting etc
25 - HYDROXYVITAMIN D, SERUM-
Note: Our Vitamin D assays is standardized to be in alignment with the ID-LC/MS/MS 25(OH)vitamin D Reference Method Procedure (RMP), the reference procedure for the Vitamin D Standardization Program (VDSP). The VDSP, a collaboration of the National Institutes of Health Office of Dietary Supplements, National Institute of Technology and Standards, Centers for Disease Control and Ghent University, is an initiative to standardize 25(OH)vitamin D measurement across methods
CALCIUM, SERUM-Commom causes of decreased value of calcium (hypocalcemia) are chronic renal failure, hypomagnesemia and hypoalbuminemia.

Hypercalcemia (increased value of calcium) can be caused by increased intestinal absorbtion (vitamin d intoxication), increased skeletal reasorption (immobilization), or a combination of mechanisms (primary hyperparathyroidism). Primary hyperparathyroidism and malignancy accounts for 90-95% of all cases of hypercalcemia.

Values of total calcium is affected by serum proteins, particularly albumin thus, latter's value should be taken into account when interpreting serum calcium levels. The following regression equation may be helpful.
Corrected total calcium (mg/dl)= total calcium (mg/dl) + 0.8 (4- albumin [g/dl])*
because regression equations vary among group of patients in different physiological and pathological conditions, mathematical corrections are only approximations. The possible mathematical corrections should be replaced by direct determination of free calcium by ISE (available with srl) a common and important source of preanalytical error in the measurement of calcium is prolonged torniquet application during sampling. Thus, this along with fist clenching should be avoided before phlebotomy.
THYROID PANEL, SERUM-
Triiodothyronine T3 , is a thyroid hormone. It affects almost every physiological process in the body, including growth, development, metabolism, body temperature, and heart rate. Production of T3 and its prohormone thyroxine (T4) is activated by thyroid-stimulating hormone (TSH), which is released from the pituitary gland. Elevated concentrations of T3, and T4 in the blood inhibit the production of TSH.
Thyroxine T4, Thyroxine's principal function is to stimulate the metabolism of all cells and tissues in the body. Excessive secretion of thyroxine in the body is hyperthyroidism, and deficient secretion is called hypothyroidism. Most of the thyroid hormone in blood is bound to transport proteins. Only a very small fraction of the circulating hormone is free and biologically active.
In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low.
Below mentioned are the guidelines for Pregnancy related reference ranges for Total T4, TSH & Total T3

Levels in Pregnancy	TOTAL T4 (µg/dL)	TSH3G (µIU/mL)	TOTAL T3 (ng/dL)
First Trimester	6.6 - 12.4	0.1 - 2.5	81 - 190
2nd Trimester	6.6 - 15.5	0.2 - 3.0	100 - 260
3rd Trimester	6.6 - 15.5	0.3 - 3.0	100 - 260

Below mentioned are the guidelines for age related reference ranges for T3 and T4.

	T3 (ng/dL)	T4 (µg/dL)
New Born:	75 - 260	1-3 day: 8.2 - 19.9
.		1 Week: 6.0 - 15.9

NOTE: TSH concentrations in apparently normal euthyroid subjects are known to be highly skewed, with a strong tailed distribution towards higher TSH values. This is well documented in the pediatric population including the infant age group.
Kindly note: Method specific reference ranges are appearing on the report under biological reference range.

Reference:
1. Burtis C.A., Ashwood E. R. Bruns D.E. Teitz textbook of Clinical Chemistry and Molecular Diagnostics, 4th Edition.
2. Gowenlock A.H. Varley's Practical Clinical Biochemistry, 6th Edition.
3. Behrman R.E. Kilegman R.M., Jenson H. B. Nelson Text Book of Pediatrics, 17th Edition
CORONARY RISK PROFILE (LIPID PROFILE), SERUM-Serum cholesterol is a blood test that can provide valuable information for the risk of coronary artery disease This test can help determine your risk of the build up of plaques in your arteries that can lead to narrowed or blocked arteries throughout your body (atherosclerosis). High cholesterol levels usually don''''''''''''''''t cause any signs or symptoms, so a cholesterol test is an important tool. High cholesterol levels often are a significant risk factor for heart disease and important for diagnosis of hyperlipoproteinemia, atherosclerosis, hepatic and thyroid diseases.

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Serum Triglyceride are a type of fat in the blood. When you eat, your body converts any calories it doesn''''''''''''''''t need into triglycerides, which are stored in fat cells. High triglyceride levels are associated with several factors, including being overweight, eating too many sweets or drinking too much alcohol, smoking, being sedentary, or having diabetes with elevated blood sugar levels. Analysis has proven useful in the diagnosis and treatment of patients with diabetes mellitus, nephrosis, liver obstruction, other diseases involving lipid metabolism, and various endocrine disorders. In conjunction with high density lipoprotein and total serum cholesterol, a triglyceride determination provides valuable information for the assessment of coronary heart disease risk.It is done in fasting state.

High-density lipoprotein (HDL) cholesterol. This is sometimes called the ""good"" cholesterol because it helps carry away LDL cholesterol, thus keeping arteries open and blood flowing more freely.HDL cholesterol is inversely related to the risk for cardiovascular disease. It increases following regular exercise, moderate alcohol consumption and with oral estrogen therapy. Decreased levels are associated with obesity, stress, cigarette smoking and diabetes mellitus.

SERUM LDL The small dense LDL test can be used to determine cardiovascular risk in individuals with metabolic syndrome or established/progressing coronary artery disease, individuals with triglyceride levels between 70 and 140 mg/dL, as well as individuals with a diet high in trans-fat or carbohydrates. Elevated sdLDL levels are associated with metabolic syndrome and an 'atherogenic lipoprotein profile', and are a strong, independent predictor of cardiovascular disease.
Elevated levels of LDL arise from multiple sources. A major factor is sedentary lifestyle with a diet high in saturated fat. Insulin-resistance and pre-diabetes have also been implicated, as has genetic predisposition. Measurement of sdLDL allows the clinician to get a more comprehensive picture of lipid risk factors and tailor treatment accordingly. Reducing LDL levels will reduce the risk of CVD and MI.

Recommendations:
Results of Lipids should always be interpreted in conjunction with the patient's medical history, clinical presentation and other findings.

NON FASTING LIPID PROFILE includes Total Cholesterol, HDL Cholesterol and calculated non-HDL Cholesterol. It does not include triglycerides and may be best used in patients for whom fasting is difficult.
SERUM BLOOD UREA NITROGEN-Causes of Increased levels
Pre renal
• High protein diet, Increased protein catabolism, GI haemorrhage, Cortisol, Dehydration, CHF Renal
• Renal Failure
Post Renal
• Malignancy, Nephrolithiasis, Prostatism

Causes of decreased levels
• Liver disease
• SIADH.
CREATININE, SERUM-Higher than normal level may be due to:
• Blockage in the urinary tract
• Kidney problems, such as kidney damage or failure, infection, or reduced blood flow
• Loss of body fluid (dehydration)
• Muscle problems, such as breakdown of muscle fibers
• Problems during pregnancy, such as seizures (eclampsia)), or high blood pressure caused by pregnancy (preeclampsia)

Lower than normal level may be due to:
• Myasthenia Gravis
• Muscular dystrophy
URIC ACID, SERUM-Causes of Increased levels
Dietary
• High Protein Intake.
• Prolonged Fasting,
• Rapid weight loss.
Gout
Lesch nyhan syndrome.
Type 2 DM.
Metabolic syndrome.

Causes of decreased levels
• Low Zinc Intake
• OCP's
• Multiple Sclerosis

Nutritional tips to manage increased Uric acid levels
• Drink plenty of fluids
• Limit animal proteins
• High Fibre foods
• Vit C Intake
• Antioxidant rich foods
TOTAL PROTEIN, SERUM-Serum total protein,also known as total protein, is a biochemical test for measuring the total amount of protein in serum..Protein in the plasma is made up of albumin and globulin

Higher-than-normal levels may be due to: Chronic inflammation or infection, including HIV and hepatitis B or C, Multiple myeloma, Waldenstrom''''''''s disease

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Lower-than-normal levels may be due to: Agammaglobulinemia, Bleeding (hemorrhage),Burns,Glomerulonephritis, Liver disease, Malabsorption, Malnutrition, Nephrotic syndrome,Protein-losing enteropathy etc.
ALBUMIN, SERUM-Human serum albumin is the most abundant protein in human blood plasma. It is produced in the liver. Albumin constitutes about half of the blood serum protein. Low blood albumin levels (hypoalbuminemia) can be caused by: Liver disease like cirrhosis of the liver, nephrotic syndrome, protein-losing enteropathy, Burns, hemodilution, increased vascular permeability or decreased lymphatic clearance,malnutrition and wasting etc.
ELECTROLYTES (NA/K/CL), SERUM-ELECTROLYTES (NA/K/CL), SERUM

Sodium levels are Increased in dehydration, cushing''''''''s syndrome, aldosteronism & decreased in Addison''''''''s disease, hypopituitarism,liver disease. Hypokalemia (low K) is common in vomiting, diarrhea, alcoholism, folic acid deficiency and primary aldosteronism. Hyperkalemia may be seen in end-stage renal failure, hemolysis, trauma, Addison''''''''s disease, metabolic acidosis, acute starvation, dehydration, and with rapid K infusion.Chloride is increased in dehydration, renal tubular acidosis (hyperchloremia metabolic acidosis), acute renal failure, metabolic acidosis associated with prolonged diarrhea and loss of sodium bicarbonate, diabetes insipidus, adrenocortical hyperfuction, salicylate intoxication and with excessive infusion of isotonic saline or extremely high dietary intake of salt.Chloride is decreased in overhydration, chronic respiratory acidosis, salt-losing nephritis, metabolic alkalosis, congestive heart failure, Addisonian crisis, certain types of metabolic acidosis, persistent gastric secretion and prolonged vomiting,
URINALYSIS-Routine urine analysis assists in screening and diagnosis of various metabolic, urological, kidney and liver disorders
Protein: Elevated proteins can be an early sign of kidney disease. Urinary protein excretion can also be temporarily elevated by strenuous exercise, orthostatic proteinuria, dehydration, urinary tract infections and acute illness with fever
Glucose: Uncontrolled diabetes mellitus can lead to presence of glucose in urine. Other causes include pregnancy, hormonal disturbances, liver disease and certain medications.
Ketones: Uncontrolled diabetes mellitus can lead to presence of ketones in urine. Ketones can also be seen in starvation, frequent vomiting, pregnancy and strenuous exercise.
Blood: Occult blood can occur in urine as intact erythrocytes or haemoglobin, which can occur in various urological, nephrological and bleeding disorders.
Leukocytes: An increase in leukocytes is an indication of inflammation in urinary tract or kidneys. Most common cause is bacterial urinary tract infection.
Nitrite: Many bacteria give positive results when their number is high. Nitrite concentration during infection increases with length of time the urine specimen is retained in bladder prior to collection.
pH: The kidneys play an important role in maintaining acid base balance of the body. Conditions of the body producing acidosis/ alkalosis or ingestion of certain type of food can affect the pH of urine.
Specific gravity: Specific gravity gives an indication of how concentrated the urine is. Increased specific gravity is seen in conditions like dehydration, glycosuria and proteinuria while decreased specific gravity is seen in excessive fluid intake, renal failure and diabetes insipidus.
Bilirubin: In certain liver diseases such as biliary obstruction or hepatitis, bilirubin gets excreted in urine.
Urobilinogen: Positive results are seen in liver diseases like hepatitis and cirrhosis and in cases of hemolytic anemia
MAGNESIUM, SERUM-Moderate or severe magnesium deficiency is usually due to losses of magnesium from gastrointestinal tract or kidneys as in vomiting and diarrhoea in former and alcohol, diabetes mellitus (osmotic diuresis), loop diuretics (furosemide) and aminoglycoside antibiotics in latter.

Symptomatic hypermagnesemia is almost always caused by excessive intake with concomitant renal failure, thereby decreasing the ability of the kidneys to excrete excess magnesium.

Magnesium concentration in erythrocytes are approximately three times those of serum. Conversion factors for the units used to express magnesium concentration are:
mg/dl= meq/l x 1.22 = mmol/l x 2.43
HEPATITIS B SURFACE ANTIGEN, SERUM-Hepatitis B is caused by infection with HBV, a enveloped DNA agent that is classified as hepadnavirus.This test detects the presence of viral surface antigen (HbsAg) in serum sample and is indicative of an active HBV infection, either acute or chronic.

Test Utility:
HbsAg is the first serologic marker appearing in the serum 6-16 weeks following hepatitis B viral infection. In typical HBV infection, HBsAg will be detected 2-4 weeks before the liver enzyme levels (ALT) become abnormal and 3-5 weeks before patient develops jaundice.In acute cases HbsAg usually disappears 1-2 months after the onset of symptoms.Persistence of HbsAg for more than 6 months indicates development of either a chronic carrier state or chronic liver disease.The presence of HbsAg is frequently associated with infectivity. HbsAg when accompanied by Hepatitis Be antigen and/or hepatitis B viral DNA almost always indicates infectivity.

Limitations:
- For diagnostic purposes, results should be used in conjunction with patient history and other hepatitis markers for diagnosis of acute or chronic infection. If the antibody results are inconsistent with clinical evidence, additional testing is suggested to confirm the result.
- HBsAg detection will only indicate the presence of surface antigens in the serum and should not be used as the sole criteria for diagnosis, staging or monitoring of HBV infection This test may be negative during ""window period"" i.e. after disappearance of anti-HBs.
- The current assay being a highly sensitive test , may yield a small percentage of false positive reports. Hence all HbsAg positive specimens should be confirmed with an assay based upon Neutralisation of Human anti Hepatitis B Surface antibody.

End Of Report
Please visit www.srlworld.com for related Test Information for this accession

Dr. Anupriya Nautiyal
Pathologist

SRL Diagnostics

CLIENT CODE : C000006030

CLIENT'S NAME AND ADDRESS :
LABRO DIAGNOSTICS
ONKAR PALACE,1,CHAKRATA ROAD, ONKAR PALA LALIT ANAND/AJAY UNIYAL,
ONKAR PALACE,1,CHAKRATA ROAD,
DEHRADUN 248001
UTTARAKHAND INDIA
0135-2100730 9319702036

SRL LIMITED
Ground Floor , Paras Tower, Main Saharanpur Road,
Near ITI Majra
DEHRADUN, 248001
UTTARAKHAND, INDIA
Tel : 8958400555,9690700555, Fax : CIN - U74899PB1995PLC045956

PATIENT NAME : DAVINDER

PATIENT ID : DAVIM927186790

ACCESSION NO : 0237UG000796   AGE : 53 Years   SEX : Male   DATE OF BIRTH :

DRAWN : 06/07/2021 09:00   RECEIVED : 06/07/2021 13:11   REPORTED : 06/07/2021 16:21

REFERRING DOCTOR : SELF   CLIENT PATIENT ID : L#1356

Test Report Status Final	Results	Biological Reference Interval Units

CONDITIONS OF LABORATORY TESTING & REPORTING

1. It is presumed that the test sample belongs to the patient named or identified in the test requisition form.
2. All Tests are performed and reported as per the turnaround time stated in the SRL Directory of services (DOS).
3. SRL confirms that all tests have been performed or assayed with highest quality standards, clinical safety & technical integrity.
4. A requested test might not be performed if:
   a. Specimen received is insufficient or inappropriate specimen quality is unsatisfactory
   b. Incorrect specimen type
   c. Request for testing is withdrawn by the ordering doctor or patient
   d. There is a discrepancy between the label on the specimen container and the name on the test requisition form

5. The results of a laboratory test are dependent on the quality of the sample as well as the assay technology.
6. Result delays could be because of uncontrolled circumstances. e.g. assay run failure.
7. Tests parameters marked by asterisks are excluded from the "scope" of NABL accredited tests. (If laboratory is accredited).
8. Laboratory results should be correlated with clinical information to determine Final diagnosis.
9. Test results are not valid for Medico- legal purposes.
10. In case of queries or unexpected test results please call at SRL customer care (91115 91115). Post proper investigation repeat analysis may be carried out.

SRL Limited

Fortis Hospital, Sector 62, Phase VIII, Mohali 160062