



# DECODING YOUR BLOOD TEST REPORT

What do the figures mean? How much should you worry about an 'abnormal' test result? And which numbers should you keep watching? By KAVITA DEVGAN



**BLOOD SUGAR, FASTING**  
It is the blood glucose level when you haven't eaten for at least 8 hours, often the first test for diabetes. A high reading here (more than 120 mg/dl in postprandial, or PP) indicates diabetes. You shouldn't eat or drink anything other than water for at least 8 hours before the sample is drawn.

**BLOOD SUGAR, PP**  
This is the glucose level exactly 2 hours after a meal. It indicates the need for change of medication or diet regime.

**SERUM CREATININE**  
High levels of creatinine can mean serious kidney damage or disease, infection, or cancer. Low levels can indicate liver disease or a low-protein diet. Pregnancy can also lower creatinine levels. Avoid strenuous exercise for two days (48 hours) before the test, do not eat unusually large quantities of meat or any other protein for 24 hours before the test, and drink enough fluids during the 24-hour urine collection. Avoid coffee and tea.

**SODIUM**  
It helps maintain electrolyte (and hence fluid) balance in the body. Abnormal levels can indicate dehydration, a gastrointestinal (GI) tract infection, hormonal disorders involving the thyroid and adrenal glands, kidney or liver problems, or even heart trouble.

**POTASSIUM**  
It helps the nerves and muscles communicate. Abnormal levels can indicate heart trouble, and high levels can also indicate poor kidney function. Uncontrolled diabetes or GI tract problems can also affect potassium levels.

**CHLORIDE**  
Blood chloride levels can help diagnose conditions causing vomiting, diarrhoea, weakness and respiratory distress.

**BICARBONATE**  
Abnormal levels can indicate kidney or lung diseases, and some metabolic conditions that alter electrolyte balance.

**BLOOD UREA (NITROGEN)**  
High urea can indicate kidney problems or infection.

PATIENT INFORMATION		SPECIMEN INFORMATION		CLIENT INFORMATION	
LAST NAME, FIRST NAME		SPECIMEN REQUISITION:		LAST NAME, FIRST NAME	
DOB:	AGE: 38			ADDRESS:	
GENDER: M	FASTING:				
PHONE:		COLLECTED:	RECEIVED:		
PATIENT:		REPORTED:			

TEST NAME	REFERENCE RANGE	LAB	
<b>BLOOD SUGAR</b>			
Blood Sugar (Fasting)	< 100 mg/dl*	97	
Blood Sugar (PP)	< 140 mg/dl	147	
<b>RENAL FUNCTION</b>			
Serum Creatinine	0.6 - 1.3 mg/dl	1.1	
Sodium (Na+)	136 - 145 mmol/L**	138	
Potassium (K+)	3.5 - 5.1 mmol/L	4.1	
Chloride (Cl-)	98 - 107 mmol/L	105	
Bicarbonate (HCO3-)	22 - 28 mmol/L	25	
Blood Urea (Nitrogen)	7 - 18 mg/dl	15	
<b>LIVER FUNCTION</b>			
Total Bilirubin	0.2 - 1.0 mg/dl	0.9	
Direct Bilirubin	0.1 - 0.2 mg/dl	0.2	
Indirect Bilirubin	0.1 - 1.0 mg/dl	0.7	
SGOT	10 - 42 U/L***	37	
SGPT	10 - 40 U/L	30	
<b>HAEMOGRAM</b>			
Haemoglobin	13.0 - 17.0 mg/dl (male) 12.0 - 15.0 mg/dl (female)	13	
TLC	4.0 - 10.0 (10 <sup>9</sup> /L)	7	
Platelet Count	150.0 - 450.0 (10 <sup>9</sup> /L)	300	
<b>LIPID PROFILE</b>			
Test	Desirable values for normal population	Target values for diabetes/CAD patient	LAB
Cholesterol	< 200 mg/dl	< 200 mg/dl	137
HDL	> 40 mg/dl	> 40 mg/dl	33.6
LDL	< 160 mg/dl	< 70 mg/dl	82
Triglycerides	< 200 mg/dl	< 150 mg/dl	85
VLDL	< 33 mg/dl		17

\* mg/dl: milligrams per decilitre \*\* mmol/L: millimoles per litre \*\*\*U/L = units/litre

**BILIRUBIN**  
This bile pigment is created during the breakdown of haemoglobin (a normal process, as red blood cells are regularly manufactured in bone marrow and replaced in the bloodstream).

● **Direct bilirubin**  
Made in the liver from indirect bilirubin, this is a water-soluble pigment. High levels usually indicate a blocked bile duct.

● **Indirect bilirubin**  
It is the insoluble form, which is carried by the

bloodstream to the liver. Abnormal levels can indicate gall bladder or liver problems—such as a blocked bile duct, hepatitis, cirrhosis—or a side effect of certain medicines. Don't eat or drink for at least 4 hours before the test. Your doctor may ask you to stop taking drugs that affect the results.

● **SGPT**  
It measures the blood level of the enzyme glutamate pyruvate transaminase (GPT), very concentrated in the liver and released when liver cells are damaged.

**HAEMOGLOBIN**  
A low reading means anaemia (when your blood can't carry enough oxygen to other cells). A high reading can indicate other forms of anaemia (blood disorders such as thalassaemia, sickle cell disease, etc).

● **TLC**  
Total leukocyte count or TLC reflects the number of white blood cells in your blood. Since they fight infection, high levels indicate bacterial infection or allergy. Low levels may mean a viral infection or typhoid.

● **Platelet count**  
Platelets help blood to clot when there is an injury. A low count is often associated with a bleeding disorder. Too high can also mean a bleeding or clotting disorder.

**CHOLESTEROL**  
Total cholesterol can indicate risk of cardiovascular disease. A diet of saturated fats and some drugs can increase cholesterol readings. High triglycerides and low HDL (high-density lipoprotein) are common in diabetes too.

● **LDL**  
Low-density lipoprotein, or bad cholesterol, is the main source of build-up and blockage in arteries.

● **Triglycerides**  
This is the most common form of fat in the blood. High levels can be due to obesity, diabetes, kidney failure and more. An excess thickens the blood, increasing the risk of a blockage or clot that can result in a stroke or heart attack. For diabetics and those with a history of cardiovascular disease, high risk of heart problems means more stringent control of triglycerides is needed.

● **VLDL cholesterol**  
Very low density lipoproteins help distribute triglycerides through the bloodstream. They also convert into LDL, which can eventually clog blood vessels.

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