

Understanding Your Blood Test Results

A Patient’s Guide to Deciphering Common Blood Markers

Receiving your blood test results can sometimes feel like looking at a page of confusing numbers and abbreviations. However, these markers provide an invaluable window into your body’s internal health. This guide, written from a clinical perspective, translates complex medical jargon into clear, actionable concepts to help you understand your health profile.

Medical Disclaimer: This guide is strictly for informational purposes and does not replace professional medical advice, diagnosis, or treatment. Always consult your physician to interpret your specific results within your personal clinical context.

Understanding Reference Ranges

A "reference range" is the set of values expected for a healthy individual, typically calculated based on 95% of a healthy population. If a result is slightly outside this range (marked as "High/H" or "Low/L"), it does not automatically mean you are ill. Factors like hydration, stress, recent meals, or individual baselines can cause temporary fluctuations.

1. Complete Blood Count (CBC)

The CBC evaluates the cellular components of your blood. It is fundamental for screening for anemia, infections, and generalized immune status.

Blood Marker	What It Measures	Clinical Significance of High/ Low Levels
Red Blood Cells (RBC) & Hemoglobin	The count of oxygen-carrying cells and the iron-rich protein that binds oxygen.	High: Dehydration, smoking, lung disease. Low: Anemia, iron/vitamin deficiency, blood loss.
White Blood Cells (WBC)	Cells responsible for defending the body against foreign pathogens.	High: Active infection, physical stress, inflammation. Low: Viral suppression, bone marrow fatigue.
Platelets (PLT)	Cell fragments crucial for blood clotting and wound healing.	High: Chronic inflammation, tissue injury. Low: Bleeding risk, viral infections.

2. Lipid Profile (Cardiovascular Risk)

This panel measures the various types of fats circulating in your bloodstream to determine your baseline risk for cardiovascular conditions like heart attacks and strokes.

Lipid Marker	Optimal Target	Clinical Insights
Total Cholesterol	< 5.2 mmol/L	Baseline screening point; needs breakdown into subcomponents for true risk evaluation.
LDL Cholesterol ("Bad")	< 2.6 mmol/L	Elevated levels directly correlate with atherosclerosis (plaque buildup). Lowering LDL is a primary preventive goal.
HDL Cholesterol ("Good")	> 1.0 mmol/L (Men) > 1.3 mmol/L (Women)	Scavenges excess cholesterol. Higher levels are cardioprotective and optimized via exercise and healthy fats.
Triglycerides	< 1.7 mmol/L	Stored fat energy from excess calories. Elevated by high carb intake, alcohol, and metabolic syndrome.

3. Metabolic Health & Kidney Function

These markers track how your body manages carbohydrates and filters metabolic waste products from your bloodstream.

Marker	What It Indicates	Clinical Concerns
Fasting Blood Glucose	Sugar concentration in blood after an 8–10 hour fast.	High: Suggests prediabetes or diabetes; can spike with stress. Low: Hypoglycemia (dizziness/sweating).
HbA1c	Average blood glucose over the past 2–3 months.	Values above 5.7% indicate prediabetes; 6.5% or higher confirms diabetes.
Creatinine & eGFR	Muscle waste product (Creatinine) and kidney filtration efficiency (eGFR).	High Creatinine / Low eGFR (<60): Indicates reduced kidney filtration capacity or severe dehydration.

4. Liver Function Tests (LFTs)

The liver handles metabolism, detoxification, and protein synthesis. Elevated liver enzymes typically leak into the blood when liver cells are stressed or damaged.

Liver Marker	Primary Location	Implications of Elevated Levels
ALT	Inside liver cells	Directly signals liver inflammation. Elevated in fatty liver disease, alcohol strain, or viral hepatitis.
AST	Liver, heart, muscles	Indicates cellular damage. If elevated with ALT, points strongly to liver strain.
Bilirubin (Total)	Waste from old RBCs	Can indicate bile duct obstruction, liver dysfunction, or benign genetic variations (Gilbert's Syndrome).