

# Diagnostic Pathology Test Results Analysis Report

This report provides a comprehensive overview of key diagnostic pathology test results across a patient dataset, using interactive visual analysis to enable healthcare data-driven decisions.

## Executive Summary

- The dashboard covers a dataset of 25,000 patient records, analyzing average values for major health markers including glucose, blood pressure, lipids, hemoglobin, and related indicators.
- Patient conditions such as diabetes, hypertension, anemia, high cholesterol, and general fitness levels are segmented for targeted insights.

## Key Metrics Overview

Metric	Value
Glucose	102.76
Diastolic_BP	72.12
Haemoglobin	13.81
HbA1C	5.51
HDL	48.91
Systolic_BP	112.78
Triglycerides	126.28
MCV	87.35
LDL	100.34
# of Records	25K

These averages represent the overall test landscape and benchmark values for the population analyzed.

## Patient Distribution by Condition

- The "Count Of Patients By Total Conditions" donut chart highlights that the majority (72%) of patients are classified as "Fit".
- Smaller segments reflect those with diabetes, hypertension, anemia, and high cholesterol, with diabetes comprising about 12% and hypertension about 7% of the population.

## Condition-wise Biomarker Analysis

- The "Glucose, HbA1C & Triglycerides by Condition" bar graph demonstrates that diabetes and anemia patients have the highest average blood glucose and HbA1C levels.
- Fit individuals consistently exhibit lower averages across biomarkers compared to chronic condition groups.

## Blood Pressure Analysis

- "Average BP Level by Condition" reveals elevated systolic and diastolic blood pressure for hypertensive patients.
- Blood pressure values are lowest in the "fit" segment, validating the effectiveness of healthy lifestyles.

## Lipid Profile Insights

- The "Average LDL, HDL Level Of Condition" pie chart indicates highest LDL means in patients with high cholesterol, while HDL distribution remains relatively balanced.
- Diabetic and hypertensive patients also feature significant LDL and HDL population shares.

## Key Correlations

- "HbA1C VS Blood\_glucose" visualizes a clear positive correlation, highlighting the interconnectedness of long-term glucose control and immediate blood glucose levels.
- "LDL VS Systolic BP" suggests that higher LDL may correspond to elevated systolic blood pressure in certain conditions.

## Hemoglobin & MCV Distribution

- The "Dist Of Haemoglobin" graph shows anemia patients with notably lower hemoglobin counts.
  - "Average of MCV by Condition" suggests higher mean corpuscular volume for high cholesterol and diabetic patients.
- 

## Conclusion

This healthcare dashboard provides actionable insights for medical practitioners and health analysts, enabling quick identification of risk group trends, lab marker abnormalities, and opportunity areas for clinical intervention. Regular monitoring and segmentation enhance the ability to prioritize preventive healthcare strategies and improve patient outcomes.