# CardioMetabolic Risk

## Comprehensive Profiles for Reducing Risk

- Evaluation of up to 16 Primary and Secondary Risk Factors
- Focused Biomarkers Including Oxidized LDL, PLAC® and Glycomark®
- Supports Early Detection and Targeted Treatment

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SCIENCE + INSIGHT

# CardioMetabolic Risk

Doctor's Data measures oxidized LDL cholesterol—

**found to be higher in CVD patients and correlated with the severity of CVD**

—as well as 16 other primary and secondary risk factors. This adds up to an unparalleled breadth of actionable information at a tremendous value.

Cardiovascular disease (CVD) remains the second leading cause of death in North America. Metabolic syndrome (MetS) is a risk factor for CVD and renal damage. Early detection and reduction of risk factors before the disease progresses is imperative. Utilizing a single blood draw, this advanced test evaluates risk factors for CVD plus metabolic factors associated with MetS and type 2 diabetes.

## Risk Factors and Analysis

Many of the risk factors and metabolic abnormalities associated with both CVD and MetS are lifestyle related. Objective, advanced laboratory assessment of abnormalities in glucose, lipid and lipoprotein metabolism and adipokines facilitate individualized clinical intervention and can improve clinical outcomes.

## Cardiovascular Risk

The CardioMetabolic Profile assesses the levels of the most highly atherogenic apolipoprotein B–containing lipoproteins, providing information well beyond the traditional levels of serum total lipids and lipoprotein cholesterol levels. Levels of low density (LDL) and very low density (VLDL) lipoprotein cholesterol can be calculated by formulas, but when plasma triglycerides (TG) are high, the calculated LDL and VLDL cholesterol values may be markedly underestimated. The levels of the real LDL culprits such as oxidized LDL, small dense LDL and lipoprotein(a) have much greater predictive power than LDL cholesterol.

## Inflammation

CVD is an inflammatory condition, therefore artery-specific hsCRP levels are reported. Results of the enzymatic activity of lipoprotein-associated phospholipase-A2 (PLAC®) test provides an indication of very significant atherogenic disease activity, inflammation and increased risk for rupture of advanced plaque. Elevated PLAC activity is a very strong predictor of coronary events and CVD-related mortality regardless of cholesterol levels.

## Metabolomics

MetS with core features of insulin resistance, central adiposity and mixed dyslipidemia is associated with risk for CVD and kidney disease. The test includes cystatin C to better assess glomerular filtration, and 1,5-anhydroglucitol (Glycomark®) that is a better indicator of hyperglycemic episodes than HbA1c. The primary adipokines associated with insulin sensitivity and hepatic fatty acid metabolism are also addressed.

The CardioMetabolic Profile is useful for those with a family or personal history of CVD, excess abdominal fat, obesity, insulin resistance or fatty liver disease.

A Metabolomic Profile is also available, assessing seven biomarkers that may reflect the likelihood of MetS in at-risk patients. Identification of individuals with MetS is important due to its association with an increased risk of and type 2 diabetes mellitus, renal damage and coronary heart disease. Except for obesity, the diseases that may develop from MetS may not be overtly expressed until they are well advanced. Therefore, early detection of the risk factors is very important.

### Available CardioMetabolic Profiles and Test Components

| | CardioMetabolic Profile | Cardiovascular Risk Profile | Metabolomic Profile |
|---|---|---|---|
| | BLOOD | BLOOD | BLOOD |
| Lipid Panel: Total Cholesterol, HDL and Triglycerides; serum | ✓ | ✓ | |
| LDL; serum (Calculated) | ✓ | ✓ | |
| VLDL; serum (Calculated) | ✓ | ✓ | |
| Non-HDL Cholesterol; serum (Calculated) | ✓ | ✓ | |
| Oxidized LDL; serum | ✓ | ✓ | |
| Small Dense LDL; serum | ✓ | ✓ | |
| Lp(a); serum | ✓ | ✓ | ✓ |
| PLAC® (LP-PLA-2 Activity); serum | ✓ | ✓ | |
| Homocysteine; serum | ✓ | ✓ | |
| CRP-hs; serum | ✓ | ✓ | ✓ |
| Apolipoprotein A1; serum | ✓ | ✓ | |
| Apolipoprotein B; serum | ✓ | ✓ | |
| Cystatin C; serum | ✓ | | ✓ |
| Insulin; serum | ✓ | | ✓ |
| Glucose; serum | ✓ | | ✓ |
| Glycomark® (1,5-Anhydroglucitol); serum | ✓ | | ✓ |
| Leptin; serum | ✓ | | ✓ |
| Adiponectin; serum | ✓ | | ✓ |
| Creatinine w/eGFR | ✓ | | ✓ |
| Total Cholesterol/HDL-C Ratio | ✓ | ✓ | |
| LDL-C/HDL-C Ratio | ✓ | ✓ | |
| Oxidized LDL/HDL-C Ratio | ✓ | ✓ | |
| Small Dense LDL-C/LDL-C Ratio | ✓ | ✓ | |
| Apo B/Apo A-1 Ratio | ✓ | ✓ | |
| Leptin/Adiponectin Ratio | ✓ | | ✓ |
| Body Mass Index | ✓ | ✓ | ✓ |

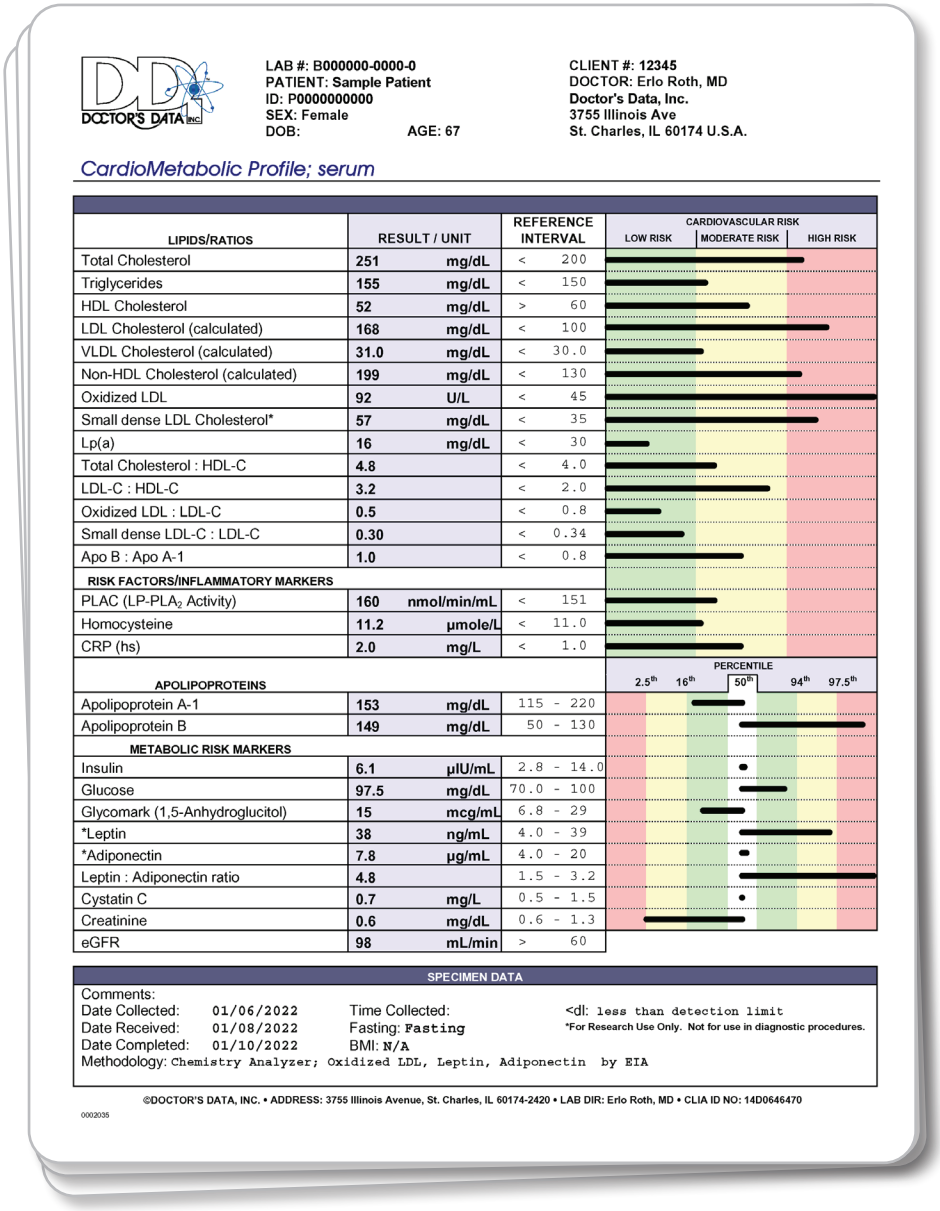
Single-analyte tests are also available. Call Doctor's Data for assistance in selecting the tests that will maximize value for your patients.

# OUR MISSION:

To research, develop and offer innovative specialty tests that help doctors identify health risks and improve outcomes for patients with chronic conditions.

To educate and support healthcare professionals.

To improve lives through science.



DOCTOR'S DATA INC.

LAB #: B000000-0000-0
PATIENT: Sample Patient
ID: P0000000000
SEX: Female
DOB: AGE: 67

CLIENT #: 12345
DOCTOR: Erlo Roth, MD
Doctor's Data, Inc.
3755 Illinois Ave
St. Charles, IL 60174 U.S.A.

*CardioMetabolic Profile; serum*

| LIPIDS/RATIOS | RESULT / UNIT | REFERENCE INTERVAL |
|---|---|---|
| Total Cholesterol | 251 mg/dL | < 200 |
| Triglycerides | 155 mg/dL | < 150 |
| HDL Cholesterol | 52 mg/dL | > 60 |
| LDL Cholesterol (calculated) | 168 mg/dL | < 100 |
| VLDL Cholesterol (calculated) | 31.0 mg/dL | < 30.0 |
| Non-HDL Cholesterol (calculated) | 199 mg/dL | < 130 |
| Oxidized LDL | 92 U/L | < 45 |
| Small dense LDL Cholesterol* | 57 mg/dL | < 35 |
| Lp(a) | 16 mg/dL | < 30 |
| Total Cholesterol : HDL-C | 4.8 | < 4.0 |
| LDL-C : HDL-C | 3.2 | < 2.0 |
| Oxidized LDL : LDL-C | 0.5 | < 0.8 |
| Small dense LDL-C : LDL-C | 0.30 | < 0.34 |
| Apo B : Apo A-1 | 1.0 | < 0.8 |
| **RISK FACTORS/INFLAMMATORY MARKERS** | | |
| PLAC (LP-PLA$_2$ Activity) | 160 nmol/min/mL | < 151 |
| Homocysteine | 11.2 µmole/L | < 11.0 |
| CRP (hs) | 2.0 mg/L | < 1.0 |
| **APOLIPOPROTEINS** | | |
| Apolipoprotein A-1 | 153 mg/dL | 115 - 220 |
| Apolipoprotein B | 149 mg/dL | 50 - 130 |
| **METABOLIC RISK MARKERS** | | |
| Insulin | 6.1 µIU/mL | 2.8 - 14.0 |
| Glucose | 97.5 mg/dL | 70.0 - 100 |
| Glycomark (1,5-Anhydroglucitol) | 15 mcg/mL | 6.8 - 29 |
| *Leptin | 38 ng/mL | 4.0 - 39 |
| *Adiponectin | 7.8 µg/mL | 4.0 - 20 |
| Leptin : Adiponectin ratio | 4.8 | 1.5 - 3.2 |
| Cystatin C | 0.7 mg/L | 0.5 - 1.5 |
| Creatinine | 0.6 mg/dL | 0.6 - 1.3 |
| eGFR | 98 mL/min | > 60 |

CARDIOVASCULAR RISK: LOW RISK | MODERATE RISK | HIGH RISK

PERCENTILE: 2.5th 16th 50th 94th 97.5th

SPECIMEN DATA

Comments:
Date Collected: 01/06/2022
Date Received: 01/08/2022
Date Completed: 01/10/2022
Time Collected:
Fasting: Fasting
BMI: N/A
Methodology: Chemistry Analyzer; Oxidized LDL, Leptin, Adiponectin by EIA

<dl: less than detection limit
*For Research Use Only. Not for use in diagnostic procedures.

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This test requires only an overnight fasting blood draw. Results are presented in a clear, easy-to-understand report that details target ranges and graphically illustrates areas of elevated risk. Result-specific commentary is also provided.

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**doctorsdata.com**



## About Doctor's Data

Doctor's Data, Inc. has provided innovative specialty testing to healthcare practitioners around the world from our advanced, CLIA-licensed clinical laboratory since 1972.

As a pioneer in the laboratory testing industry, Doctor's Data provides a wide array of testing solutions to aid in decision making and better patient outcomes. Choose Doctor's Data to help you assess and treat heavy metal burden, nutritional deficiencies, gastrointestinal function, hormone status, cardiovascular risk, liver and metabolic abnormalities, and more.