

# CARDIOVASCULAR CARE

# Cardiovascular Care

## SOLUTIONS

**From routine lipid evaluations to complex genetic studies, LabCorp provides an extensive menu of cardiovascular disease (CVD) testing to support the spectrum of clinical scenarios that you face each day.**

LabCorp's medical and scientific professionals have constructed a comprehensive test menu to address the complexities of cardiovascular care, and our ancillary tools and services help assimilate these tests into your practice's workflow.





Beyond a comprehensive test menu, LabCorp offers ancillary tools and services to help enhance your practice, organization, quality measures, health information technology, and patient care.

## SERVICES AND TOOLS

**LabCorp Link™** for test orders, results delivery, analytics, and trending

**Cardiovascular Report** for at-risk patients

**Cardiovascular-specific Test Request Form** for efficient test ordering

# SERVICES AND TOOLS

## A Result Report Like No Other

Available in PDF or HL7 format, the cardiovascular report presents a patient-specific, guideline-based analysis of lipid test results in light of cardiovascular risk factors.

A patient friendly version of the report is available for patient consulting. Reports may also include Current Laboratory Results, with visual cues relative to reference intervals, and Flow Sheets, which trend results over eight future dates of service.

Generate the report for all patients when ordering a lipid panel, **NMR LipoProfile®** test, or either **Lipid Cascade** option by completing the Cardiovascular Report Physician Request and Acknowledgement form. Alternatively, order test **910385** in addition to a lipid panel, **NMR LipoProfile** test, or either **Lipid Cascade** option to generate the color graphic PDF report as needed.

- Provides actionable information in support of clinical decision-making.
- Can be used to help educate and counsel patients.

**Sample Patient 1**  
 DATE OF BIRTH: 08/03/1960  
 GENDER: M  
 DATE OF SERVICE: 04/14/2014  
 PHYSICIAN: Sample Physician

**Cardiovascular Risk Assessment**  
 Analysis & Treatment Suggestions

**Patient Risk Assessment**  
 Current available clinical information suggests the patient's risk is at least HIGH. Your patient appears to have one CHD risk equivalent (diabetes). One additional major risk factor is present (age over 45).

**Patient Risk Category**  
 Select one patient risk category based upon medical history and clinical judgment. Additional risk factors such as personal or family history of premature CHD, smoking, and hypertension modify a patient's goals of therapy. In CVD prevention, the intensity of therapy should be adjusted to the level of patient risk. MODERATE intensity statin therapy generally results in an average LDL-C reduction of 30% to less than 50% from the untreated baseline. Examples include (daily doses): atorvastatin 40-80 mg and rosuvastatin 20 mg. HIGH intensity statin therapy generally results in an average LDL-C reduction of 50% or more from the untreated baseline. Examples include (daily doses): atorvastatin 40-80 mg and rosuvastatin 20 mg.

ANALYTE / RESULT	Patient Risk Category (select one)		
	LOW	INTERMEDIATE	HIGH
LDL-C 71 mg/dL	180	100-130	70-100
non-HDL 100 mg/dL	150	100-130	70-100
LDL-P 1035 nmol/L	1500	1000-1300	500-1000

**Lipid Assessment**  
 LDL-C is optimal, was 66 and now is 71 mg/dL. Non-HDL Cholesterol is optimal, was 93 and now is 100 mg/dL. LDL-P is acceptable, 1035 nmol/L. Please refer to assessment and treatment suggestions under high risk category.

**Treatment Suggestions**

**Disease Risk Category**  
 Select one disease risk category based upon your risk factors and clinical judgment.

**Intermediate**  **High**

Other medical conditions: such as diabetes, high blood pressure, or as scheduled and obtain all follow-up tests/treatments as recommended by your physician. List all medications your doctor(s) have prescribed.

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# AVAILABLE TESTS

## Lipids and Lipoproteins

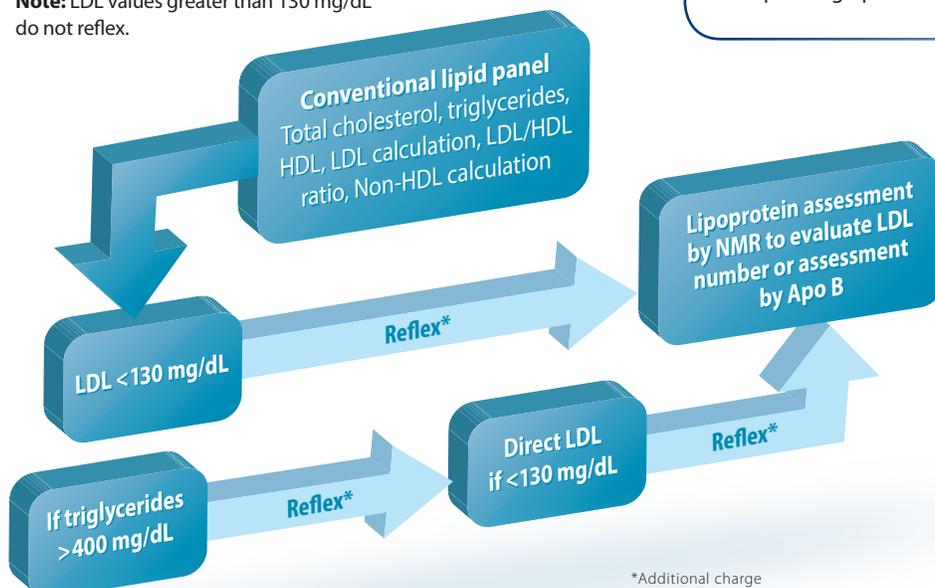
016873	Apolipoprotein A-1
216010	Apolipoprotein Assessment
167015	Apolipoprotein B
884247	NMR LipoProfile®
361946	Lipid Cascade With Reflex to Lipoprotein Particle Assessment by NMR
363676	Lipid Cascade With Reflex to Apolipoprotein B
303756	Lipid Panel
343925	Lipid Profile With Non-HDL Cholesterol
368600	Familial Hypercholesterolemia (FH) Screen
235036	Lipoprotein Phenotyping Profile
120295	Low-density Lipoprotein Cholesterol (Direct)
818542	HDL-P, Total*
120188	Lipoprotein(a)
235010	Lipid Panel With LDL:HDL Ratio
221010	Lipid Panel With Total Cholesterol:HDL Ratio

\* This test was developed and its performance characteristics were determined by LipoScience. It has not been cleared or approved by the Food and Drug Administration.

## The Lipid Cascade “Smart” Testing Approach

Requiring a single blood draw, LabCorp’s Lipid Cascade provides convenient, step-wise testing for patient management.

**Note:** LDL values greater than 130 mg/dL do not reflex.



\*Additional charge

## THE CLINICAL CHALLENGE

### Cardiovascular disease risk management in at-risk patient populations

- The role of high levels of low-density lipoprotein (LDL) particles in the development of cardiovascular disease (CVD) is well established.<sup>1</sup>
- Elevated LDL drives entry of these atherogenic particles into the arterial wall, accelerating development of CVD.<sup>1</sup> The longer there is exposure to elevated LDL, the greater the risk for clinical events.<sup>1</sup>
- Use of LDL-lowering therapies is a core strategy in managing CVD risk.<sup>1</sup> Once therapy is initiated, LDL values are monitored to assess response to therapy and guide management decisions.
- Traditional low density lipoprotein-cholesterol (LDL-C) – calculated or direct - is an estimate of LDL quantity based on the amount of cholesterol contained in the LDL particles.<sup>1</sup> However, the amount of cholesterol per particle varies – particularly in patients with type II diabetes, in statin-treated patients, and those with the cardiometabolic risk (CMR) factors. LDL-C may be an unreliable measure of LDL quantity for these at-risk patients in a management setting.<sup>2,3</sup>
- LDL particle (LDL-P) can be measured by nuclear magnetic resonance (NMR) or estimated by apolipoprotein B (Apo B). Neither NMR nor Apo B quantifies LDL-P in a manner that depends on the amount of cholesterol contained inside the LDL-P.
- LabCorp’s NMR LipoProfile test or Lipid Cascade options may help inform patient management in these at-risk populations.
- Each Lipid Cascade option begins with a traditional lipid panel. If the patient’s LDL-C value is < 130 mg/dL<sup>4</sup>, the traditional lipid panel reflexes to LDL-P measurement by NMR or estimation by Apo B, depending upon which Lipid Cascade option has been ordered.

# AVAILABLE TESTS

## Other

<b>503935</b>	Apo E Genotyping: Cardiovascular Risk
<b>511238</b>	Methylenetetrahydrofolate Reductase (MTHFR)
<b>335884</b>	Metabolic Syndrome Profile
<b>004259</b>	Thyroid-stimulating Hormone (TSH)
<b>500140</b>	Heart Disease and Stroke Risk Profile

## Ambulatory ECG Monitoring Services

<b>119530</b>	Mobile Cardiovascular Telemetry (MCT)
<b>999706</b>	ECG Tracing and Computer Analysis
<b>019372</b>	Blood Pressure Monitoring
<b>019380</b>	Blood Pressure Unit—One-time Use and Analysis
<b>009274</b>	Holter Analysis Only
<b>009324</b>	Holter Recorder and Disposable Supplies - One-time Use and Analysis
<b>019323</b>	Holter Hook-up/Disconnect by LabCorp
<b>019331</b>	Holter Cardiologist Overread
<b>119503</b>	Patient-activated Event Monitoring (PAEM), Presymptom Cardiology Overread
<b>119511</b>	Patient-activated Event Monitoring (PAEM), Hook-up/Disconnect by LabCorp
<b>119420</b>	Patient-activated Event Monitoring (PAEM), Receipt of Transmissions
<b>119180</b>	ECG Computer Analysis Only
<b>990333</b>	ECG Cardiologist Overread Only, Adult

## Genetic Testing for Inherited Structural and Electrical Conditions

<b>252651</b>	Atrial Septal Defect (ASD) With Atrioventricular Block (AVB): <i>NKX2.5</i> (Full Gene Sequencing)
<b>252405</b>	Atrial Septal Defect (ASD) With Atrioventricular Block (AVB): <i>NKX2.5</i> (Known Mutation)
<b>252880</b>	Early-onset Coronary Heart Disease/Familial Hypercholesterolemia: Three-gene Profile ( <i>LDLR</i> , <i>APOB</i> , <i>PCSK9</i> )
<b>451422</b>	GeneSeq®: Cardio Familial Cardiomyopathy Profile
<b>451412</b>	GeneSeq®: Cardio Familial Arrhythmia Profile
<b>451432</b>	GeneSeq®: Cardio Familial Aortopathy Profile
<b>451441</b>	GeneSeq®: Cardio Noonan Syndrome and Related Conditions Profile
<b>451402</b>	GeneSeq®: Cardio Familial Congenital Heart Disease Profile
<b>451416</b>	GeneSeq®: Cardio Early-onset Coronary Artery Disease/Familial Hypercholesterolemia Profile
<b>252419</b>	Loeys-Dietz Syndrome (LDS): Two-gene Profile ( <i>TGFBR1</i> , <i>TGFBR2</i> ) (Full Gene Sequencing)
<b>252406</b>	Marfan Syndrome (MFS): <i>FBN1</i> (Full Gene Sequencing)
<b>252654</b>	Marfan Syndrome (MFS): <i>FBN1</i> (Known Mutation)
<b>252409</b>	Marfan Syndrome to Loeys-Dietz Syndrome Reflex Profile ( <i>MFS</i> → <i>LDS</i> ): <i>FBN1</i> → <i>TGFBR1</i> , <i>TGFBR2</i> (Full Gene Sequencing)
<b>252399</b>	Pulmonic Stenosis: <i>PTPN11</i> (Full Gene Sequencing)
<b>252647</b>	Pulmonic Stenosis: <i>PTPN11</i> (Known Mutation)
<b>252422</b>	Thoracic Aortic Aneurysms and Dissections (TAAD): Three-gene Profile ( <i>FBN1</i> , <i>TGFBR1</i> , <i>TGFBR2</i> ) (Full Gene Sequencing)

## Acute Ischemic Markers

<b>120816</b>	Creatine Kinase (CK), MB
<b>001362</b>	Creatine Kinase (CK), Total
<b>010405</b>	Myoglobin
<b>140150</b>	Troponin T

# AVAILABLE TESTS

## Emerging Risk Factors & Inflammatory Markers

<b>500140</b>	Heart Disease and Stroke Risk Profile
<b>120766</b>	C-Reactive Protein (CRP), High Sensitivity (Cardiovascular Risk Assessment)
<b>001610</b>	Fibrinogen Activity
<b>117052</b>	Fibrinogen Antigen
<b>706994</b>	Homocyst(e)ine, Plasma
<b>140916</b>	Interleukin-6
<b>123240</b>	Lipoprotein-associated Phospholipase A2
<b>146787</b>	Plasminogen Activator Inhibitor I (PAI-1) Activity
<b>005215</b>	Sedimentation Rate, Modified Westergren

## Diabetes

<b>004650</b>	Adiponectin
<b>160721</b>	Antipancreatic Islet Cells
<b>001818</b>	Glucose, Plasma
<b>101000</b>	Gestational Glucose Tolerance Screening and Diagnostic Test (Two-hour, ADA 2011 Standards)
<b>143008</b>	Glutamic Acid Decarboxylase (GAD) Autoantibody
<b>001453</b>	Hemoglobin (Hb) A <sub>1c</sub>
<b>102525</b>	Hemoglobin (Hb) A <sub>1c</sub> With eAG
<b>141531</b>	IA <sub>2</sub> Autoantibodies (Endocrine Sciences)

## Heart Failure

<b>143000</b>	NT-proBNP
<b>004110</b>	Galectin-3
<b>140080</b>	Galectin-3 With B-type Natriuretic Peptide
<b>142005</b>	Galectin-3 With NT-proBNP

## Clotting Risk Assessment

<b>005207</b>	Partial Thromboplastin Time (PTT), Activated
<b>020321</b>	Prothrombin Time (PT) and Partial Thromboplastin Time (PTT)
<b>512103</b>	Thrombotic Risk Profile, DNA Analysis

## Genetic Assessment

<b>511710</b>	Clopidogrel CYP2C19 Genotyping
<b>511460</b>	Warfarin (P450 2C9 and VKORC1)

## Therapy Monitoring

<b>005199</b>	Prothrombin Time (PT)
<b>485199</b>	Prothrombin Time (PT) (Serial Monitor)
<b>007385</b>	Digoxin
<b>706705</b>	Amiodarone
<b>085662</b>	Flecainide, Serum or Plasma
<b>007831</b>	Quinidine, Serum or Plasma
<b>007864</b>	Disopyramide, Serum or Plasma

## COMPLETING THE CONTINUUM OF CARDIOVASCULAR CARE

### References

1. Toth, et al. Cardiovascular risk in patients achieving low-density lipoprotein cholesterol and particle targets. *Atherosclerosis*, Volume 235, Issue 2, August 2014. Pages 585–591.
2. Brunzell, JD, et al. Lipoprotein Management in Patients With Cardiometabolic Risk. *Diabetes Care*, Vol. 31, No. 4, Apr 2008. Pages 811-822.
3. AACE Comprehensive Diabetes Management Algorithm 2013 Consensus Statement. *Endocrine Practice*, Vol. 19 (Suppl 2), May/June 2013. Pages 1-48.
4. Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). National Cholesterol Education Program (NCEP) Expert Panel. NIH Publication No. 01-3670, May 2001.

For the most current information regarding test options, including specimen requirements and CPT codes, please consult the online Test Menu at [www.LabCorp.com](http://www.LabCorp.com).



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