Understanding the NMR LipoProfile® Test Report

LabCorp

LDL-P

- LDL-P is the direct measure of low density lipoprotein particles - the causal link between high levels of LDL-P and development of cardiovascular disease (CVD) is well established.
- Studies have demonstrated per-particle cholesterol amount varies in patients with type II diabetes, statin-treated patients, and those with cardiometabolic risk factors (CMR) listed below:^{1,2,3}
 - **Age:** men \geq 45 yrs, women \geq 55 yrs)⁴ **Elevated BP:** (\geq 130/ \geq 85 mmHg; on antihypertensive medication)⁵
 - Abdominal obesity/waist circumference: male \geq 40" (Asian \geq 35"), female \geq 35" (Asian \geq 31")⁵ Elevated triglycerides: (\geq 150 mg/dL), low HDL (men < 40 mg/dL, women < 50 mg/dL), increased numbers of small dense LDL particles,²⁵ on drug treatment for elevated triglycerides or HDL-C Elevated fasting blood glucose: (\geq 100 mg/dL),⁵ on drug treatment for elevated glucose Insulin resistance: (IR)²
- Many expert panels recommend use of LDL-P values to optimize treatment decisions in these at-risk patients.²⁶
- NMR LipoProfile® Test is FDA cleared for use in conjunction with other lipid measurements and clinical evaluation to aid in the management of lipoprotein disorders associated with CVD.⁷

Lipids

- Traditional lipid panel includes LDL-C, HDL-C, triglycerides and total cholesterol.
- Whether calculated or measured directly, LDL-C is an estimate of the amount of cholesterol contained within LDL-P.¹

Historical Reporting

Patient LDL-P and LDL-C values and dates of services are tracked over time, providing opportunities for clinician/patient discussions regarding treatment strategies

NMR LipoProfile ® test				Reference Range ¹			
	Perc	entile ¹ 2	:0th 5	0th 80)th g	95th	
	nmol/L	Low	Moderate	Borderline Hiah	High	Very High	
LDL-P	1571	< 1000	1000 - 1299	1300 - 1599	1600 - 2000	> 2000	
1. Reference population (5,	() 362 men and women) not o	on lipid medication enrolle	d in the Multi-Ethnic Study	of Atherosclerosis (MESA).	Mora, et al. Atheroscler	osis 2007.	
Lipids	mg/dL	Optimal	Near or Above Optimal	Borderline Hiah	High	Very High	
LDL-C	134	< 100	100 - 129	130 - 159	160 - 189	≥ 190	
HDL-C 40 Irigiycerides 70 Iotal Cholesterol 196 Desirable ≥ 40 Desirable < 150 Desirable < 200 LDL-C is inaccurate if patient is non-fasting. Historical Reporting							
LDL-P	500 - 700 - 800 -	900 1000 11000	1200 - 1300 - 1400 - 1500 -	1600 - 1700 - 1800 - 1900 -	2000 - 2100 - 2200 -	2300 -	
_				1571 (07/17/2015)			
LDL-C	<u>- 8</u> 8 8	· · · · · · ·	120- 130- 140- 150-	160 - 170 - 180 - 190 -	200- 210- 220-	230-	
	134 (07/17/2015)						

Personalized LDL Management

Targets of Therapy (Adapted with permission from International Guidelines Center²)



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LDL and HDL Particles

- HDL-P is the direct measure of high density lipoprotein particles; it has been shown to be more strongly and independently related to atherosclerotic risk than high density lipoprotein cholesterol (HDL-C).8
- Many with CMR factors have increased numbers of small lipoprotein particles (Small LDL-P) and other atherogenic lipoproteins.9,10

Insulin Resistance (IR) Score

- A laboratory developed index that has been associated with IR and diabetes risk, the IR Score can be used as one component of clinical assessment.
- Insulin resistance (IR) is the precursor to type 2 diabetes (T2DM) and manifests its earliest measureable abnormalities though changes in lipoproteins.¹¹
- The IR score may be an early alert to a heightened risk of developing T2DM.11

Test Name	Test No
NMR LipoProfile(R) With Insulin Resistance Markers (With Graph)	123638
NMR LipoProfile(R) With Insulin Resistance Markers Without Lipids (With Graph)	123497
NMR LipoProfile® (With Graph)	123810
NMR LipoProfile [®] (Without Graph)	884247

For the most current information regarding test options, including specimen requirements and CPT codes, please consult the online Test Menu at www.LabCorp.com.

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PARTICLE CONCENTRATION AND SIZE



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