

# Understanding the NMR LipoProfile® Test Report

## 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:<sup>1,2,3</sup>

**Age:** men ≥45 yrs, women ≥ 55 yrs<sup>4</sup>

**Elevated BP:** (≥130/≥85 mmHg; on antihypertensive medication)<sup>5</sup>

**Abdominal obesity/waist circumference:**

male ≥ 40" (Asian ≥ 35"), female ≥ 35" (Asian ≥ 31")<sup>5</sup>

**Elevated triglycerides:** (≥150 mg/dL), low HDL (men < 40 mg/dL, women < 50 mg/dL), increased numbers of small dense LDL particles,<sup>2,5</sup> on drug treatment for elevated triglycerides or HDL-C

**Elevated fasting blood glucose:** (≥ 100 mg/dL),<sup>5</sup> on drug treatment for elevated glucose

**Insulin resistance:** (IR)<sup>2</sup>

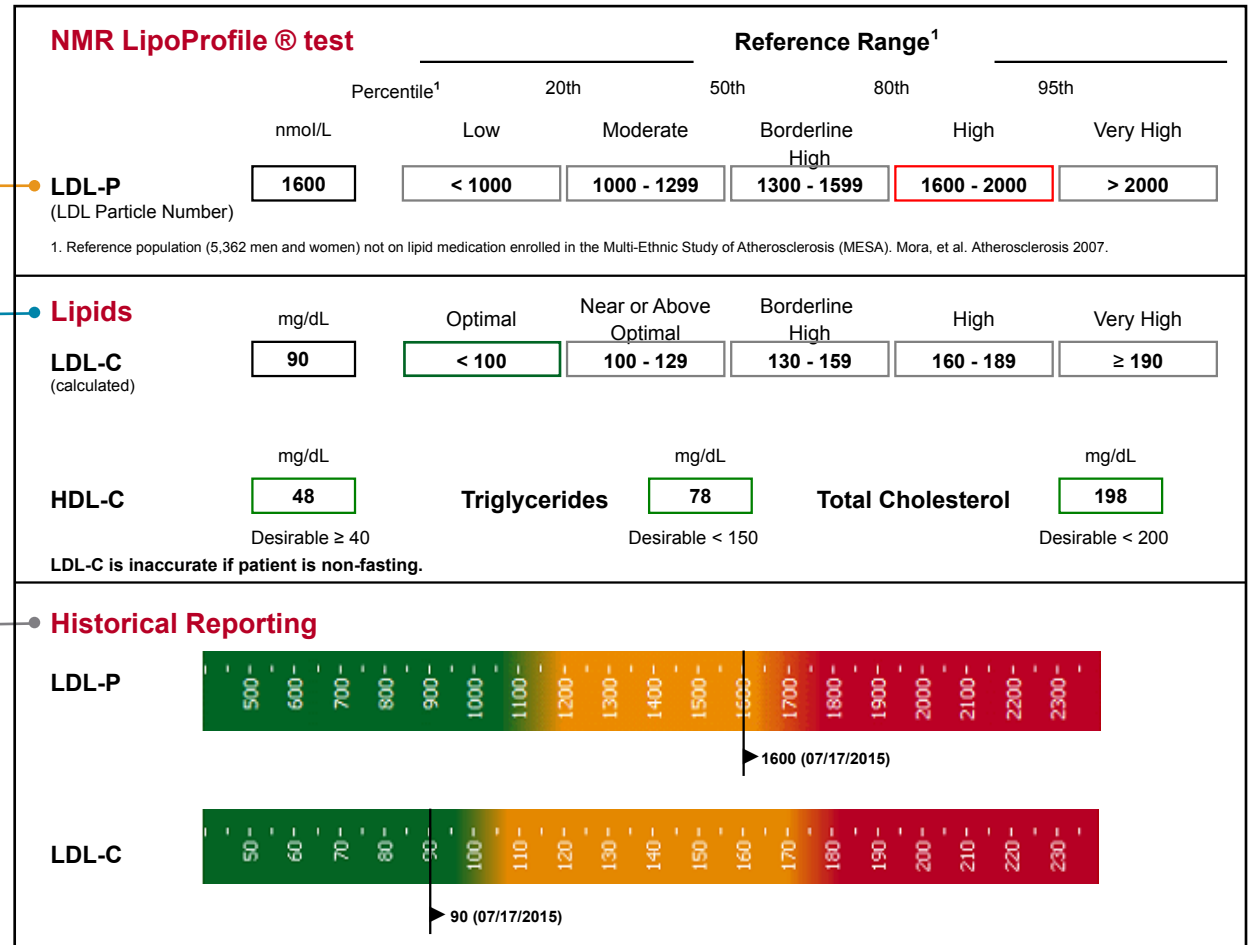
- Many expert panels recommend use of LDL-P values to optimize treatment decisions in these at-risk patients.<sup>2,6</sup>
- NMR LipoProfile® Test is FDA cleared for use in conjunction with other lipid measurements and clinical evaluation to aid in the management of lipoprotein disorders associated with CVD.<sup>7</sup>

## 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.<sup>1</sup>

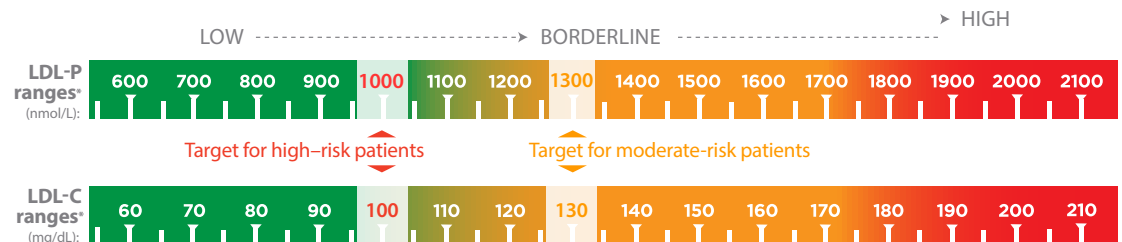
## Historical Reporting

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



## Personalized LDL Management

**Targets of Therapy** (Adapted with permission from International Guidelines Center<sup>2</sup>)



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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).<sup>8</sup>
- Many with CMR factors have increased numbers of small lipoprotein particles (Small LDL-P) and other atherogenic lipoproteins.<sup>9,10</sup>

## 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 measurable abnormalities through changes in lipoproteins.<sup>11</sup>
- The IR score may be an early alert to a heightened risk of developing T2DM.<sup>11</sup>

## 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](http://www.LabCorp.com).

### References

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## PARTICLE CONCENTRATION AND SIZE

