**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:1–3
  - **Age:** men ≥45 yrs, women ≥ 55 yrs
  - **Elevated BP:** (≥ 130/85 mmHg; on antihypertensive medication)3
  - **Abdominal obesity/waist circumference:** male ≥ 40” (Asian ≥ 35”), female ≥ 35” (Asian ≥ 31”)5
  - **Elevated triglycerides:** (≥150 mg/dL), low HDL (men < 40 mg/dL, women < 50 mg/dL), increased numbers of small dense LDL particles,2,4 on drug treatment for elevated triglycerides or HDL-C
  - **Elevated fasting blood glucose:** (≥ 100 mg/dL),5 on drug treatment for elevated glucose
  - **Insulin resistance:** (IR)3
- Many expert panels recommend use of LDL-P values to optimize treatment decisions in these at-risk patients,2,6
- 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**

<table>
<thead>
<tr>
<th>LDL-P (LDL Particle Number)</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>nmoI/L</td>
<td>1000 - 1299</td>
</tr>
<tr>
<td></td>
<td>1300 - 1599</td>
</tr>
<tr>
<td></td>
<td>1600 - 2000</td>
</tr>
<tr>
<td></td>
<td>&gt; 2000</td>
</tr>
</tbody>
</table>


---

**Lipids**

- **LDL-C (calculated)**
  - Optimally: < 100
  - Near or Above Optimal: 100 - 129
  - Borderline High: 130 - 159
  - High: 160 - 189
  - Very High: ≥ 190

**HDL-C**
- Desirable: ≥ 40
- Very Desirable: < 150
- High: ≥ 190
- Very High: ≥ 200

**Triglycerides**
- Desirable: < 150
- Very Desirable: < 200

**Total Cholesterol**
- Desirable: < 200

**Historical Reporting**

- LDL-P
- LDL-C

---

**Personalized LDL Management**

**Targets of Therapy** (Adapted with permission from International Guidelines Center)

**LOW** ................................. ................................. **BORDERLINE** ................................. ................................. **HIGH**

**LDL-P**

<table>
<thead>
<tr>
<th>LDL-P ranges (nmol/L)</th>
<th>600</th>
<th>700</th>
<th>800</th>
<th>900</th>
<th>1000</th>
<th>1100</th>
<th>1200</th>
<th>1300</th>
<th>1400</th>
<th>1500</th>
<th>1600</th>
<th>1700</th>
<th>1800</th>
<th>1900</th>
<th>2000</th>
<th>2100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target for high-risk patients</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target for moderate-risk patients</td>
<td>1300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LDL-C**

<table>
<thead>
<tr>
<th>LDL-C ranges (mg/dL)</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
<th>110</th>
<th>120</th>
<th>130</th>
<th>140</th>
<th>150</th>
<th>160</th>
<th>170</th>
<th>180</th>
<th>190</th>
<th>200</th>
<th>210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target for high-risk patients</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target for moderate-risk patients</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The LP-IR score is a laboratory developed index that has been associated with insulin resistance and diabetes risk and should be used as one component of clinical assessment.

- 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).6
- Many with CMR factors have increased numbers of small lipoprotein particles (Small LDL-P) and other atherogenic lipoproteins.8,10

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 measurable abnormalities though changes in lipoproteins.11
- The IR score may be an early alert to a heightened risk of developing T2DM.11

Test Name

- NMR LipoProfile(R) With Insulin Resistance Markers (With Graph)
- NMR LipoProfile(R) With Insulin Resistance Markers Without Lipids (With Graph)
- NMR LipoProfile(R) (With Graph)
- NMR LipoProfile(R) (Without Graph)

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

References
7. NMR LipoProfile(R) (package insert). Raleigh, NC: Laboratory Corporation of America; 2015.

©2016 Laboratory Corporation of America® Holdings - All rights reserved. L15035-0316-1