Lab Dept: Chemistry

Test Name: LIPID PROFILE

General Information
Lab Order Codes: LIPL
Synonyms: Lipid Panel
CPT Codes: 80061 – Lipid panel
Test Includes: Total Cholesterol, Triglycerides, HDL Cholesterol and LDL Cholesterol (measured)

Logistics
Test Indications: Evaluation of cardiovascular risk.
Lab Testing Sections: Chemistry
Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550
Test Availability: Daily, 24 hours
Turnaround Time: 2 hours
Special Instructions: See Patient Preparation

Specimen
Specimen Type: Blood
Container: Green (Li Heparin) top tube
Alternate: SST – Serum Separator (Red, marble or gold top tube)
Draw Volume: 1.5 mL (Minimum: 0.6 mL) blood
Processed Volume: 0.5 mL (Minimum: 0.2 mL) plasma/serum
Collection: Routine blood collection.
Note: Venipuncture should occur prior to administration of N-Acetylcysteine (NAC) or Metamizole due to the potential for falsely depressed results.
**Special Processing:**
Lab Staff: Centrifuge specimen, remove plasma/serum aliquot into a plastic sample cup. Sample to be run within 2 hours.

**Patient Preparation:**
Patient should be on a stable diet for 3 weeks, and fast 9-12 hours before collection, recommended.

**Sample Rejection:**
Mislabeled or unlabeled specimen

### Interpretive

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>2 – 17 yrs</th>
<th>≥18 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol: (mg/dL)</td>
<td>Desirable: &lt;170</td>
<td>&lt;200</td>
</tr>
<tr>
<td></td>
<td>Borderline high: 170 - 199</td>
<td>200 - 239</td>
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<tr>
<td></td>
<td>High: ≥200</td>
<td>≥240</td>
</tr>
<tr>
<td>HDL Cholesterol: (mg/dL)</td>
<td>Low: &lt;40</td>
<td>&lt;40</td>
</tr>
<tr>
<td></td>
<td>Normal: ≥60</td>
<td>40 – 60</td>
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<tr>
<td></td>
<td>Desirable: &gt;60</td>
<td>≥60</td>
</tr>
<tr>
<td>LDL Cholesterol: (mg/dL)</td>
<td>Acceptable: &lt;110</td>
<td>&lt;100</td>
</tr>
<tr>
<td></td>
<td>Near optimal: NA</td>
<td>100 - 129</td>
</tr>
<tr>
<td></td>
<td>Borderline: 110 – 129</td>
<td>130 – 159</td>
</tr>
<tr>
<td></td>
<td>High: ≥130</td>
<td>≥160</td>
</tr>
<tr>
<td>Triglycerides: (mg/dL)</td>
<td>0 – 9 yrs</td>
<td>10 – 17 yrs</td>
</tr>
<tr>
<td></td>
<td>Acceptable: 0 - 75</td>
<td>&lt;90</td>
</tr>
<tr>
<td></td>
<td>Borderline: 75 - 99</td>
<td>90 - 129</td>
</tr>
<tr>
<td></td>
<td>High: ≥100</td>
<td>≥130</td>
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</tbody>
</table>

**Note:** The National Education Program (NCEP) has set the above guidelines for lipids (total cholesterol, triglycerides, HDL, and LDL cholesterol.

**Critical Values:**
N/A

**Limitations:**
Use of gel tubes may adversely affect HDL/LDL levels.
Methodology: Enzymatic colorimetric; dextran sulfate, direct measure LDL

References:
- TGL Flex® reagent cartridge insert sheet Siemens Healthcare Diagnostics Inc (2013-08-20) Rev E 781069.001
- ALDL Flex® reagent cartridge insert sheet PN 717731.001 (Issue Date 2008-02-13) Rev. B
- US Department of Health and Human Services (May 2001) National Institutes of Health Publication # 01-3305
- Mayo Medical Laboratories (1/6/2012) online test catalogue

Updates:
- 2/21/2012: Testing moved to inhouse test at Children’s, previously listed as referred to Mayo Medical Laboratories.
- 6/18/2013: Added no gel restriction for red top tubes.
- 2/8/2016: Update alt tube types
- 3/29/2016: Updated collection information and references