**LDL Cholesterol, Direct**

**CPT Code:** 83721  
**Order Code:** C120  
**ABN Requirement:** No  
**Synonyms:** LDL; LDL-C; Low-density Lipoprotein Cholesterol; Direct LDL-C; Direct LDL; DLDL; LDL D  
**Specimen:** Serum  
**Volume:** 0.5 mL  
**Minimum Volume:** 0.2 mL  
**Container:** Gel-barrier tube (SST, Tiger Top)

**Collection:**

1. Collect and label sample according to standard protocols.  
2. Gently invert tube 5 times immediately after draw. DO NOT SHAKE.  
3. Allow blood to clot 30 minutes.  
4. Centrifuge for 10 minutes.

**Fasting:** Not Required.

**Transport:** Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions provided with the Cleveland HeartLab shipping box.

**Stability:**

- **Ambient (15-25°C):** not acceptable  
- **Refrigerated (2-8°C):** 7 days  
- **Frozen (-20°C):** 12 months  
- **Deep Frozen (-70°C):** 12 months

**Causes for Rejection:** Specimens other than serum; improper labeling; samples not stored properly; samples older than stability limits

**Methodology:** Enzymatic Colorimetric Assay

**Turn Around Time:** 1 to 3 days

**Relative Risk:**
<table>
<thead>
<tr>
<th>Age</th>
<th>Low Risk mg/dL</th>
<th>Moderate Risk mg/dL</th>
<th>High Risk mg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20 years</td>
<td>&lt;110</td>
<td>N/A</td>
<td>≥110</td>
</tr>
<tr>
<td>≥20 years</td>
<td>&lt;100</td>
<td>100-129</td>
<td>&gt;129</td>
</tr>
</tbody>
</table>

**Clinical Significance:** The direct LDL cholesterol test is used to determine LDL levels in individuals with high triglyceride levels for which the Friedewald equation for calculating LDL-C from Total cholesterol, HDL-C and triglycerides cannot be used. In addition to other lipid tests, the direct LDL cholesterol test can be ordered to help determine the risk of developing cardiovascular disease in healthy individuals as well as those with one or more risk factors, individuals with a family history of high cholesterol or heart disease, and in individuals who are obese, diabetic, or who consume a high-fat diet. Direct LDL cholesterol testing is also used to monitor the efficacy of lipid-lowering interventions, such as dietary changes, exercise and medication.

**Limitations:** Extremely increased serum triglycerides levels/lipemia cause artificially high LDL cholesterol results. Intralipid causes artificially high LDL cholesterol results. In some patients with abnormal liver function, the LDL-cholesterol result is significantly negatively biased versus beta quantification results. In very rare cases gammopathy may cause unreliable results. Acetaminophen use can falsely decrease test results.

*The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.*