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**Lab Dept:** Chemistry

**Test Name:** LIPID PROFILE

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***General Information***

**Lab Order Codes:** LIPL

**Synonyms:** Lipid Panel

**CPT Codes:** 80061 – Lipid panel

**Test Includes:** Total Cholesterol, Triglycerides, HDL Cholesterol and LDL Cholesterol

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***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](#)

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***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

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***Interpretive***

**Reference Range:**

<b>Reference Ranges:</b>	All ages:	Range (mg/dL)
<b>Total Cholesterol: (mg/dL)</b>	Normal	42 – 199
	Abnormal	≥200
<b>HDL Cholesterol</b>	Normal	≥40
	Abnormal	<40
<b>LDL Cholesterol</b>	Abnormal high	≥130
	Age	Range
<b>Triglycerides</b>	Normal	
	0 – 9 years:	<100
	9 – 18 years:	<130
	Adult:	<200

**Critical Values:** N/A

**Limitations:** N-Acetyl-L-Cysteine at therapeutically achieved concentrations may lead to falsely low results.

**Methodology:** Cholesterol: Enzymatic  
HDL Cholesterol: Accelerator Selective Detergent  
LDL Cholesterol: Measured, Liquid Selective Detergent  
Triglycerides: Glycerol Phosphate Oxidase

**References:**

Abbott Alinity c Cholesterol Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA, December 2017,

Abbot Alinity c Multiconstituent Calibrator Package Insert, Abbott Diagnostics Division, Abbott Park, IL 60064, USA

Bio-Rad Liquichek Multiquel 1,2,3, Unassayed Chemistry Control Package Insert, Bio-Rad Laboratories

2018 Guideline on the Management of Blood Cholesterol, GUIDELINES MADE SIMPLE, A Selection of Tables and Figures. American College of Cardiology, [acc.org/GMSCholesterol](http://acc.org/GMSCholesterol). Updated June 2019

Abbott Alinity c Ultra HDL Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA. Revised February 2018

Bio-Rad Laboratories Liquichek Multiquel 1,2,3, Unassayed QC Product Insert, Bio-Rad Laboratories, Irvine, CA, USA

Abbott Alinity c Direct LDL Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA. Revised December 2017

Abbott Alinity Lipid Multiconstituent Calibrator, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA

Bio-Rad Liquichek Unassayed Multiquel 1,2,3, Control Package Insert, Bio-Rad Laboratories, Irvine, CA, USA

Abbott Alinity c Triglyceride Reagent Kit Instructions for Use, Abbott Diagnostics Division, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA. December 2017

Abbott Alinity c Multiconstituent Calibrator Package Insert, Abbott Diagnostics Division, Abbott Park, IL 60064, USA. December 2017

US Department of Health and Human Services (May 2001) National Institutes of Health Publication # 01-3305

US Department of Health and Human Services, Summary Report of the Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents:7

Mayo Medical Laboratories (1/6/2012) online test catalogue

**Updates:**

2/21/2012: Testing moved to in house 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

9/10/2020: Updated reference range for HDL cholesterol

11/24/2020: Updated for method Abbott Alinity