

Overview

Useful For

[Calculation of non-high-density lipoprotein cholesterol for the work up of cardiovascular risk](#)

Managing atherosclerotic cardiovascular disease risk

Method Name

Only orderable as part of a profile. For more information see LPSC1 / Lipid Panel, Serum.

Calculation

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required

Only orderable as part of a profile. For more information see LPSC1 / Lipid Panel, Serum.

Reject Due To

Gross hemolysis	Reject
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Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	
	Frozen	30 days	

Clinical & Interpretive

Clinical Information

[Lipoprotein cholesterol measures are essential in managing risk for atherosclerotic cardiovascular disease \(ASCVD\).](#)
[Atherosclerosis is defined by a buildup of plaque within arterial walls. ASCVD includes coronary heart disease, strokes,](#)

and [peripheral artery disease](#). ASCVD develops over decades and is often asymptomatic until the patient experiences a life-threatening event such as a heart attack, stroke, or aneurysm.

Non-high-density lipoprotein cholesterol (HDL-C) is defined by the calculation of total cholesterol-HDL-C. Non-HDL cholesterol is the combination of low-density lipoprotein cholesterol (LDL-C) and very-low density lipoprotein cholesterol (VLDL-C). Non-HDL cholesterol is directly associated with risk for cardiovascular disease and referred to as “bad” cholesterol. Multiple trials have demonstrated that non-HDL cholesterol is as good or better than LDL-C at predicting cardiovascular disease risk. Non-HDL cholesterol is not influenced by triglyceride concentrations or fasting.

Reference Values

Only orderable as part of a profile. For more information see LPSC1 / Lipid Panel, Serum.

The National Lipid Association and the National Cholesterol Education Program have set the following guidelines for lipids in a context of cardiovascular risk for adults 18 years old and older:

NON-HDL CHOLESTEROL

Desirable: <130 mg/dL

Above Desirable: 130-159 mg/dL

Borderline High: 160-189 mg/dL

High: 190-219 mg/dL

Very High: > or =220 mg/dL

The Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents has set the following guidelines for lipids in a context of cardiovascular risk for children 2-17 years old:

NON-HDL CHOLESTEROL

Acceptable: <120 mg/dL

Borderline High: 120-144 mg/dL

High: > or =145 mg/dL

Reference values have not been established for patients who are younger than 24 months of age.

Interpretation

[Maintaining desirable concentrations of lipids lowers](#) atherosclerotic cardiovascular disease (ASCVD) risk. Establishing appropriate treatment strategies and lipid goals require blood lipid values be considered in context with other risk factors including, age, sex, smoking status, and medical history of hypertension, diabetes, and cardiovascular disease.

For non-high-density lipoprotein cholesterol results of 220 mg/dL or above, a possible inherited hyperlipidemia diagnosis should be considered.

Cautions

No significant cautionary statements

Clinical Reference

[1. Grundy SM, Stone NJ, Bailey AL, et al: AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Circulation. 2019 Jun 18;139\(25\):e1082-e1143](#)

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- Jacobson TA, Ito MK, Maki KC, et al: National Lipid Association recommendations for patient-centered management of dyslipidemia: part 1-executive summary. J Clin Lipidol. 2014 Sep-Oct;8(5):473-488. doi: 10.1016/j.jacl.2014.07.007
 - Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents; National Heart, Lung, and Blood Institute: Expert panel on integrated guidelines for cardiovascular health and risk reduction in children and adolescents: Summary report. Pediatrics. 2011 Dec;128 Suppl 5 (Suppl 5):S213-S256. doi: 10.1542/peds.2009-2107C

Performance

Method Description

[This test calculates the non-high-density lipoprotein cholesterol concentration by subtracting the high-density cholesterol concentration from the total cholesterol concentration. This calculation is performed in the Laboratory Information System, SCC Soft.](#)

PDF Report

No

Day(s) Performed

Monday through Sunday

Report Available

1 day

Specimen Retention Time

1 week

Performing Laboratory Location

Rochester

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

Test Classification

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

Test Definition: NHDCH

Cholesterol, Non-High-Density Lipoprotein
(HDL), Calculated, Serum

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
NHDCH	Cholesterol, Non-HDL, Calculated, S	No LOINC Needed

Result ID	Test Result Name	Result LOINC® Value
NHDCH	Cholesterol, Non-HDL, Calculated, S	43396-1