MAYO CLINIC LABORATORIES

Test Definition: TRIGC

Triglycerides, CDC, Serum (Non-Orderable)

Overview

Useful For

Only orderable as part of a profile. For more information see LMPP / Lipoprotein Metabolism Profile, Serum.

Measurement of triglycerides as part of lipoprotein profiling

Method Name

Only orderable as part of a profile. For more information see LMPP / Lipoprotein Metabolism Profile, Serum.

Enzymatic Colorimetric

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required

Only orderable as part of a profile. For more information see LMPP / Lipoprotein Metabolism Profile, Serum.

Patient Preparation:
1. **Fasting: 12 hours, required**
2. Patient **must not** consume any alcohol for 24 hours before specimen collection.
Supplies: Sarstedt Aliquot Tube, 5 mL (T914)
Collection Container/Tube:
Preferred: Serum gel
Acceptable: Red top
Submission Container/Tube: Plastic vial
Specimen Volume: 5 mL
Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume

0.25 mL

Reject Due To

Gross hemolysis	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	
	Frozen	60 days	

Clinical & Interpretive

Clinical Information

Triglycerides are esters of the trihydric alcohol, glycerol, with 3 long-chain fatty acids. They are partly synthesized in the liver and partly derived from the diet.

Reference Values

Only orderable as part of a profile. For more information see LMPP / Lipoprotein Metabolism Profile, Serum.

Triglycerides
2-9 years:
Acceptable: <75 mg/dL
Borderline high: 75-99 mg/dL
High: > or =100 mg/dL

10-17 years:
Acceptable: <90 mg/dL
Borderline high: 90-129 mg/dL
High: > or =130 mg/dL

> or =18 years:
Normal: <150 mg/dL
Borderline high: 150-199 mg/dL
High: 200-499 mg/dL
Very high: > or =500 mg/dL

Reference values have not been established for patients younger than 2 years.

Interpretation

Increased plasma triglyceride levels are indicative of a metabolic abnormality and, along with elevated cholesterol, are considered a risk factor for atherosclerotic disease. Hyperlipidemia may be inherited or be associated with biliary obstruction, diabetes mellitus, nephrotic syndrome, kidney failure, or metabolic disorders related to endocrinopathies. Increased triglycerides may also be associated with alcohol consumption, sedentarism or medication-induced (eg, prednisone).

Since cholesterol and triglycerides can vary independently, measurement of both is more meaningful than the measurement of cholesterol only.

Cautions

Triglyceride result can be falsely decreased in patients with elevated levels of N-acetyl-p-benzoquinone imine (a metabolite of acetaminophen), N-acetylcysteine, and metamizole.

Clinical Reference

1. Grundy SM, Stone NJ, Bailey AL, et al: 2018 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;139(25):e1082-e1143. doi:10.1016/j.jacc.2018.11.002
2. 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;128 Suppl5(Suppl 5):S213-S256
3. Rosenson RS, Najera SD, Hegele RA. Heterozygous familial hypercholesterolemia presenting as chylomicronemia syndrome. J Clin Lipidol. 2017;11(1):294-296. doi:10.1016/j.jacl.2016.12.005
4. Hopkins PN, Brinton EA, Nanjee MN. Hyperlipoproteinemia type 3: the forgotten phenotype. Curr Atheroscler Rep. 2014;16(9):440. doi:10.1007/s11883-014-0440-2
5. Gotoda T, Shirai K, Ohta T, et al. Diagnosis and management of type I and type V hyperlipoproteinemia. J Atheroscler Thromb. 2012;19(1):1-12
6. Gonzales KM, Donato LJ, Shah P, Simha V. Measurement of apolipoprotein B levels helps in the identification of patients at risk for hypertriglyceridemic pancreatitis. J Clin Lipidol. 2021;15(1):97-103. doi:10.1016/j.jacl.2020.11.010

Performance

Method Description

Samples analyzed for triglycerides are measured by an automated enzymatic method. The chemistry includes hydrolysis of the triglycerides and phosphorylation of the resulting glycerol.(Package insert: Triglycerides Reagent. Roche Diagnostics; V13.0, 03/2022)

PDF Report

No

Day(s) Performed

Monday through Thursday, Sunday

Report Available

2 to 4 days

Specimen Retention Time

14 days

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

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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 account representative. 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.

CPT Code Information

84478

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
TRIGC	Triglycerides, CDC, S	2571-8

Result ID	Test Result Name	Result LOINC® Value
TRIGC	Triglycerides, CDC, S	2571-8