Quest Diagnostics™

A new LDL-C testing standard for cardiac risk assessment offering increased accuracy and convenience:

The **Martin-Hopkins Calculation** for LDL-C*

Quest Diagnostics is the first diagnostic laboratory to offer the Martin-Hopkins Calculation for LDL-C assessment†

A number of recent, large, well-controlled studies have found that LDL-C calculations using the Friedewald calculation underestimate LDL-C and may be inaccurate in up to 63% of patients with triglyceride (TG) values between 150 mg/dL and 400 mg/dL and in patients with LDL-C less than 70 mg/dL.

The advantages of Martin-Hopkins ensure identification of at-risk patients:

- Improved accuracy in assessing LDL-C levels in patients with very high or low LDL-C levels regardless of TG levels between 150 mg/dL and 400 mg/dL
- Comparable to a direct LDL-C measurement[1,2]
- Convenient for patients since fasting prior to blood draw is not required[2]

Key benefits for your patients include:

- Adjustable factor that allows for personalization of the LDL-C versus a one-size-fits all calculation
- Improved accuracy for nonfasting samples, which allows patients to skip the fast prior to their lipid panel blood draw[3]
    - Patient compliance and safety for patients who may have an issue with fasting (e.g., diabetics)[4]

*Developed by Seth Martin, MD, Johns Hopkins Ciccarone Center for the Prevention of Heart Disease, and colleagues.
†Quest Diagnostics has replaced the Friedewald calculation for all tests, including an LDL-C.

Nonfasting LDL-C calculation is appropriate for most patients

Consensus guidelines support nonfasting lipid panel testing in most patients, including:[4]

- Initial lipid profile testing in any patient
- For cardiovascular risk assessment
- In children
- If preferred by the patient
- In diabetic patients (due to hypoglycemic risk)
- In the elderly
- In patients on stable drug therapy

Fasting may be required in settings that include: triglycerides >440 mg/dL, as recommended by the European Atherosclerosis Society (EAS); hypertriglyceridemia; additional lab tests requested that require fasting or morning specimens.[4]

Test Names	Test Code(s)*	CPT Code(s)*
Lipid Panel†	7600	80061
Lipid Panel with Reflex to Direct LDL‡	14852	80061

*Test codes may vary by location. Please contact your laboratory for more information. 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.

†Lipid panel components may be ordered separately: Cholesterol Total (Test code 334/CPT 82465), Triglycerides (Test code 896/CPT 84478); HDL Cholesterol (Test code 608/CPT 83718).

‡ Lipid panel components may be ordered separately: Cholesterol Total (Test code 334/CPT 82465), Triglycerides (Test code 896/CPT 84478); HDL Cholesterol (Test code 608/CPT 83718). If triglyceride result is >400 mg/dL, Direct LDL Cholesterol (Test code 8293) will be performed at an additional charge (CPT 83721).

Greater accuracy for LDL-C assessment and no fasting.

Order the first lipid testing from a national commercial laboratory that uses the Martin-Hopkins calculation for LDL-C. For more information, contact your Quest Diagnostics sales representative or visit **Education.QuestDiagnostics.com/Martin-Hopkins**

References

1. Martin SS, Blaha MJ, Elshazly MB, *et al*. Comparison of a novel method vs the Friedewald Equation for estimating low-density lipoprotein cholesterol levels from the standard lipid profile. *JAMA*. 2013;310(19):2061–2068.
2. Whelton SP, Meeusen JW, Donato, LJ, *et al*. Evaluating the atherogenic burden of individuals with a Friedewald estimated LDL-C <70 mg/dL compared to a novel LDL-C estimation method, *Journal of Clinical Lipidology* (2017), doi: 10.1016/j.jacl.2017.05.005.
3. Martin SS, Blaha MJ, Elshazly MB, *et al*. Friedewald-estimated versus directly measured low-density lipoprotein cholesterol and treatment implications. *J Am Coll Cardiol*. 2013;62:732–739.
4. Nordestgaard BG, Langsted A, Mora S, *et al*. Fasting is not routinely required for determination of a lipid profile: clinical and laboratory implications including flagging at desirable concentration cut-points—a joint consensus statement from the European Atherosclerosis Society and European Federation of Clinical Chemistry and Laboratory Medicine. *Eur Heart J.* 2016 Jul 1;37(25):1944–1958.

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