

Interpreting an Lp(a) Laboratory Report



A Quick Reference to Ordering, Reading, and Understanding Lp(a) Results



Who should be tested for Lp(a)? Every adult at least once in a lifetime¹

Why measure Lp(a)? To more accurately characterize ASCVD risk and to identify individuals who may benefit from earlier, more intensive management of modifiable cardiovascular risk factors¹

It is important to measure and report Lp(a) accurately.¹



When should Lp(a) testing be ordered?

- Lp(a) concentrations are mostly genetically determined and relatively stable over a lifetime; one measurement is typically sufficient for risk assessment¹
- Test in adulthood; consider earlier testing with familial hypercholesterolemia and in those with a personal or family history of premature ASCVD^{1,2}



How is Lp(a) testing ordered?

- Some health systems embed Lp(a) in standard lipid-panel or procedure-specific order sets, although it is generally ordered as a separate assay^{3,4}
- Electronic health record workflows may help increase Lp(a) ordering in practice⁴
- 2026 US CMS Clinical Laboratory Fee Schedule amount for Lp(a) testing: \$14.32⁵



How can accurate Lp(a) results be ensured?

- Lp(a) concentration can be measured by mass (mg/dL) or molar concentration (nmol/L)¹
- Variation in apo(a) size across individuals can influence mass-based Lp(a) results (mg/dL)^{6,7}
- nmol/L is the preferred unit because it reflects particle concentration rather than mass and supports more consistent interpretation across apo(a) isoform sizes^{1,4,6,7}
- Any Lp(a) measurement is better than no measurement^{1,4}
 - Interpret mg/dL results using the reporting laboratory's thresholds. Do not apply nmol/L cutoffs directly, because a fixed conversion cannot be made^{4,6,7}

Recommended best practices for an Lp(a) lab report – use this list to ensure your laboratory is giving the best results^{1,4,6-8}*

What should appear on the report

- ☐ Numeric result
- ☐ Unit of measure (nmol/L or mg/dL)
- ☐ Risk tier
- ☐ Elevated result identified
- ☐ Assay name

Additional lab details

- ☐ Calibration units
- ☐ Isoform-insensitive assay
- ☐ Traceable reference standard[†]

See reverse side for a sample lab report

^{*}Some recommended elements may not appear on all Lp(a) reports. When possible, use laboratories that routinely provide these details.

[†]When possible, use a laboratory with assays traceable to recognized reference standards to improve comparability across testing sites^{1,7}

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Sample Lp(a) Lab Report

For illustrative purposes only

Report Status: **Final**

Patient Information	Specimen Information	Client Information
SAMPLE, REPORT DOB: 03/16/1985 Age: 40 Gender: M Fasting: N Phone: NG Patient ID: XX000000 Lp(a) testing does not require fasting¹	Specimen: XX000000 Requisition: 0012345 Lab Ref #: 0012345 Collected: 04/01/2026 Received: 04/01/2026 Reported: 04/02/2026	Client #: 99999999 SMITH, JOHN SAMPLE CLIENT 1 Main Street City, State 12345

Comments:

Test Name	Result	Flag	Reference Range	Units
Lipoprotein(a)	140	High	<75	nmol/L

Lp(a) levels ≥ 125 nmol/L (50 mg/dL) are considered high. Elevated Lp(a) results should be clearly identified using the same risk cutoffs for all ethnicities and both sexes^{1,8*}

Risk^{1,9}:

Optimal
Moderate
High

<75 nmol/L
75-124 nmol/L
 ≥ 125 nmol/L

Lp(a) may be reported in nmol/L or mg/dL, but **nmol/L is preferred** because it reflects particle concentration and aligns with reference-standardized measurement.

Do not convert between nmol/L and mg/dL using a fixed factor, because conversion is assay- and isoform-dependent^{1,4,6-8}

Method: Immunoturbidimetric assay (isoform-insensitive)

The testing method, assay name, and platform may be included on the report. Multiple Lp(a) assays are currently in use, and **results may vary across methods** and laboratories because standardization is still evolving^{1,6,7}

Interpretive thresholds support risk assessment based on current guidelines, but **cutoff points may vary across laboratories^{1,4,6}**

If Lp(a) is reported in mg/dL, a practical interpretation framework is^{4,9}:
Optimal <30 mg/dL
Moderate 30-49 mg/dL
High ≥ 50 mg/dL

*Lp(a) levels vary by ancestry and sex, but current guidelines recommend the same risk cutoffs for all groups.^{1,8}

Apo(a)=apolipoprotein(a); ASCVD=atherosclerotic cardiovascular disease; CMS=Centers for Medicare & Medicaid Services; Lp(a)=lipoprotein(a).

1. Blumenthal RS, et al. *J Am Coll Cardiol.* 2026;87(19):2624-2757. 2. Wilson D, et al. *J Clin Lipidol.* 2022;16:e77-e95. 3. Bhatia HS, et al. *Atherosclerosis.* 2022;349:144-150.

4. Koschinsky ML, et al. *J Clin Lipidol.* 2024;18(3):e308-e319. 5. Centers for Medicare & Medicaid Services. Clinical Laboratory Fee Schedule, 2026 Q2. Accessed April 16, 2026.

<https://www.cms.gov/medicare/payment/fee-schedules/clinical-laboratory-fee-schedule-clfs> 6. Velilla TA, et al. *Adv Lab Med.* 2025;6(1):7-16. 7. Cegla J, et al. *Ann Clin Biochem.* 2021;58(1):16-21. 8. Nordestgaard BG, Langsted A. *Lancet.* 2024;404(10459):1255-1264. 9. Reyes-Soffer G, et al. *Am J Prev Cardiol.* 2024;18:100651.

