

Lp(a) Testing and Case Scenarios

QUICK REFERENCE FOR HEALTH CARE PROFESSIONALS



PRACTICAL STEPS FOR ORDERING, INTERPRETING, AND APPLYING LP(A) RESULTS IN PRACTICE.

This resource outlines how to test for Lp(a), preferred units, risk thresholds, and two patient case scenarios that highlight when testing is most valuable.



HOW TO TEST FOR LP(A)

Accurate testing ensures reliable results and appropriate interpretation.

- **Sample type:** Standard blood sample.
- **Preferred unit:** nmol/L (more accurate and standardized compared to mg/dL).
- **Conversion caution:** mg/dL cannot be reliably converted to nmol/L because of Lp(a) particle size variability.
- **Repeat testing:** Not usually necessary, since Lp(a) remains stable throughout life.

RESULTS SHOULD BE INTERPRETED IN COMBINATION WITH OTHER RISK FACTORS (LDL-C, DIABETES, HYPERTENSION, SMOKING, FAMILY HISTORY).

INTERPRETING RESULTS

Risk thresholds and what they mean in practice.

- **Normal range:** <75 nmol/L (<30 mg/dL)
- **Borderline risk:** 75–125 nmol/L (30–50 mg/dL)
- **High risk:** >125 nmol/L (>50 mg/dL)
- **Very high risk:** >250 nmol/L (>100 mg/dL)



COMMUNICATING RESULTS TO PATIENTS

How to explain elevated Lp(a) in plain language.

- Lp(a) is something you inherit, not caused by diet or lifestyle.
- Having high Lp(a) means your blood vessels may build plaque faster, raising your risk for heart disease or stroke.
- We can't yet lower Lp(a) directly in routine care, but we can control other risks aggressively (LDL cholesterol, blood pressure, diabetes, smoking).
- New therapies are in development that specifically target Lp(a).

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CASE 1: PREMATURE HEART ATTACK

- **Patient:** 45-year-old man, non-smoker, on statin with LDL-C at target.
- **Event:** Presents with STEMI.
- **Work-up:** Lp(a) measured at 180 nmol/L.
- **Interpretation:** Elevated Lp(a) explains risk beyond LDL-C. Intensify prevention (PCSK9 inhibitor, lifestyle, family cascade screening).



RED FLAG CHECKLIST

- Strong family history of early heart disease or stroke
- Recurrent cardiovascular events despite good LDL-C control
- Familial hypercholesterolemia (FH)
- Premature or unexplained aortic valve stenosis
- High-risk ethnic background (South Asian, African, Indigenous)

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CASE 2: FAMILY HISTORY AND STROKE

- **Patient:** 38-year-old woman with mother who had a stroke at 50.
- **Work-up:** Lp(a) measured at 210 nmol/L, LDL-C borderline.
- **Interpretation:** Elevated Lp(a) confirms genetic risk. Aggressive risk factor management indicated, counseling for family members.



EARLY DETECTION OF LP(A) PROVIDES AN OPPORTUNITY TO PREVENT LIFE-ALTERING CARDIOVASCULAR EVENTS AND IMPROVE LONG-TERM OUTCOMES.

Take Action Today!

Screen for Lp(a) at least once in adulthood. Identify patients at higher risk and interpret results using standardized nmol/L units. Act early—optimize LDL-C, manage lifestyle factors, and refer complex cases to a lipid specialist. Early detection saves lives and prevents avoidable cardiovascular events.



HEARTLIFE ACADEMY

For more information and education on Lp(a) please visit us at heartlife.ca/academy/



HeartLife FOUNDATION

Canada's patient-led heart disease charity
"It's About Life, Not Failure™"



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Our Mission

The HeartLife Foundation is a patient-driven charity whose mission is to transform the quality of life for people living with cardiovascular diseases by engaging, educating, and empowering a global community. We aim to create lasting solutions, drive innovation, and build healthier lives for patients, caregivers, and families worldwide.