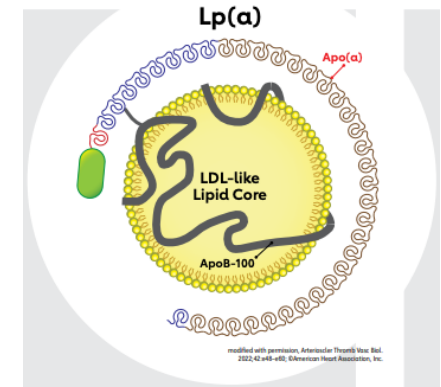


# Information on Lipoprotein a



## What is Lipoprotein a, also known as Lp(a) ?

Lipoprotein(a) is a protein in your blood that carries cholesterol. It looks similar to low-density lipoprotein (LDL, often called the “lousy” cholesterol) but has an extra protein called apolipoprotein(a). High Lp(a) levels affect about 1 in 5 people worldwide.

## Why do we measure Lp(a)?

IA high Lp(a) level can cause plaque buildup, narrowing arteries and reducing blood flow. It also increases inflammation and blood clotting, which can cause plaque rupture. Both plaque buildup and rupture can end up blocking blood flow to vital organs like the heart, brain, kidneys, and lungs.

## Who should get tested for Lp(a)?

If a close family member has high Lp(a), it’s important to get tested and encourage other family members like parents, siblings, and children to do the same. **The latest Canadian cardiovascular society guidelines recommend “Everyone should have Lp(a) checked once in their lifetime”. We recommend testing this after the age of 30.**

## What is an elevated Lp(a) level?

A Lp(a) of 50 mg/dL (or  $\geq 125$  nmol/L) or more increases your risk linearly of heart attack, stroke, peripheral artery disease (PAD), aortic stenosis and other heart conditions. Risk increases as your level increases.

## What changes my Lp(a) level?

Lp(a) is a genetic lipoprotein and 90% of it is determined by your genetic structure. It is not changed by diet and lifestyle. You could have high Lp(a) even with a healthy lifestyle. Lp(a) levels are set by age 5 and generally stay the same from then on.

## Can Lp(a) be treated?

Although lifestyle changes can’t lower Lp(a) levels, it’s important to lower your overall risk of heart disease by lowering your cholesterol and following heart healthy habits like regular exercise, avoiding smoking and maintaining a healthy body weight and blood pressure. Large clinical trials, confirm that for patients with high Lp(a), driving LDL cholesterol down to very low levels significantly reduces the chance of heart attack or stroke. Think of Lp(a) as a weight on the "Risk" side of a scale. Since we cannot easily remove that weight yet, we must lighten the load elsewhere. New treatments to lower Lp(a) levels are being developed. Stay in touch with your healthcare team to know when these options become available.

## Is there a role of Aspirin in very high lpa?

High Lp(a) may increase the risk of clot formation in our body. Because of this "pro-clotting" effect, evidence suggests that patients with levels above 175 nmol/L may benefit from low-dose aspirin therapy and some patients are put on a baby aspirin if their bleeding risk is low.

Lp(a) nmol/L	Δ Lp(a) compared to median	Lp(a) percentile	Increased lifetime risk of major cardiac event from high Lp(a)
320	300	99	x2.56
270	250	97.5	x2.19
220	200	93.5	x1.87
170	150	90	x1.60
120	100	82.5	x1.37
70	50	75	x1.17
20	ref.	50	ref.

Modified from Kronenberg, F., Mora, S., Stroes, E.S., Ference, B.A., Arsenault, B.J., Berglund, L., Dweck, M.R., Koschinsky, M., Lambert, G., Mach, F. and McNeal, C.J., 2022. Lipoprotein (a) in atherosclerotic cardiovascular disease and aortic stenosis: a European Atherosclerosis Society consensus statement. *European heart journal*, 43(39), pp.3925-3946.



<https://www.lpaclinicalguidance.com/>

Scan to Check Your Heart Risk

What is this? A quick tool to estimate your 10-year risk of heart disease or stroke.

Why do it? Knowing your baseline risk helps you and your doctor decide how aggressively to treat your Lp(a).

Have these ready:

- Current Blood Pressure
- Lpa, total & HDL Cholesterol numbers
- your current weight and height

**If your lp a is increased  
we recommend cholesterol lowering medication to lower risk.**