Living with *LP(a)*

A DISCUSSION GUIDE FOR PATIENTS AND FAMILIES

WHAT IS LP(A)?

Lipoprotein(a), also known as Lp(a) and pronounced "lipoprotein little a" or "L-P little a", is a cholesterol-like substance produced in the liver and found in the blood. It is made up of two smaller lipoproteins joined together.

Everyone has some Lp(a) in their body – that is completely normal. But when levels are too high, it can become harmful. Elevated Lp(a) can irritate and inflame the inner walls of the arteries, leading to the buildup of fatty deposits, called plaque (made of fat, cholesterol, calcium, and other substances). Plaque can narrow the arteries and reduce blood flow. Lp(a) also makes it more likely that a plaque will rupture, which can trigger a blood clot to form and completely block the artery. Additionally, Lp(a) can interfere with the body's natural ability to break down blood clots, making clots harder to dissolve. All of this, increases the risk of serious problems like a heart attack, ischemic stroke, or peripheral artery disease.

Lp(a) levels are **inherited** from one or both parents and can vary widely from person to person and across different populations.

While many people know that high LDL-C (the "bad" cholesterol) can increase the risk of heart disease, fewer are aware of Lp(a). **Knowing your Lp(a) level is an important step in understanding your overall risk for cardiovascular disease.**

HIGH LP(A) IS *more common* THAN MANY REALIZE – AFFECTING ABOUT *1 in 5 people globally*

HIGH LEVELS OF LP(A) CAN *double or triple* THE RISK OF CARDIOVASCULAR DISEASE.

THE RISK IS EVEN HIGHER IN PEOPLE LIVING WITH *diabetes*

YOU ONLY NEED TO CHECK YOUR LP(A) *once in your lifetime*

KNOW YOUR LP(A) LEVEL

High Lp(a) levels are mostly determined by **genetics** and **usually stay stable throughout adult life,** therefore you only need to check it **once in your lifetime.**

Lp(a) is not included in routine cholesterol checks — but a simple blood test can measure it. It is especially important to be aware of your levels if you have certain cardiovascular conditions such as premature atherosclerotic cardiovascular disease, or familial hypercholesterolemia.

Cardiovascular disease risk, according to Lp(a) levels:

LOW RISK	INTERMEDIATE RISK	HIGH RISK
<30 mg/dL (or <75 nmol/L)	30-50 mg/dL (or 75-125 nmol/L)	>50 mg/dL (or >125 nmol/L)

If your levels of Lp(a) are in the intermediate or high-risk category, it is important to talk to your healthcare provider. They can assess your overall cardiovascular risk and help you explore ways to manage it.

ELEVATED LP(A) AND CARDIOVASCULAR DISEASE

High Lp(a) levels increase the risk of developing a range of cardiovascular problems, even when other cholesterol numbers are normal. These may include:

- ♡ **ATHEROSCLEROTIC CARDIOVASCULAR DISEASE (ASCVD):** Buildup of fatty deposits in the artery walls
- ♡ **HEART ATTACK:** Caused by blockages in the coronary arteries
- ♡ **AORTIC VALVE DAMAGE OR NARROWING** (aortic stenosis)
- ♡ **STROKE:** Often due to blockages in the neck arteries supplying the brain
- ♡ **PERIPHERAL ARTERIAL DISEASE:** Reduced blood flow in the extremities, most commonly the legs, due to blocked arteries
- ♡ **BLOOD CLOTS (THROMBOSIS):** Lp(a) can interfere with the body's ability to break down clots

LP(A) AND OTHER CONDITIONS

While the **genes** are the main factor in determining Lp(a) levels, certain health conditions have been associated with higher Lp(a) levels in some people. These include:

- ♡ **HORMONAL CHANGES, SUCH AS LOW ESTROGEN**
- ♡ **KIDNEY DISEASE AND NEPHROTIC SYNDROME**
- ♡ **INFLAMMATORY CONDITIONS SUCH AS RHEUMATOID ARTHRITIS OR INFECTIONS**
- ♡ **HYPOTHYROIDISM (AN UNDERACTIVE THYROID)**
- ♡ **UNCONTROLLED DIABETES**

TREATING AND MANAGING HIGH LP(A)

HEALTHY LIFESTYLE: While lifestyle changes cannot significantly reduce Lp(a) levels, making heart-healthy choices can go a long way in lowering your overall risk of cardiovascular disease and improving your well-being and longevity. These include: engaging in **regular physical activity,** eating **nutritious foods, not smoking, limiting alcohol use, reducing stress,** maintaining a **healthy weight** and **managing other risk factors** (especially LDL – bad – cholesterol).

HEALTHCARE GUIDANCE: Consult with a healthcare provider to assess your overall cardiovascular risk and develop a personalized plan, especially if you have elevated Lp(a) levels or a family history of heart disease.

LOOKING AHEAD: There is currently no approved treatment specifically to lower high Lp(a) levels, but this is an active area of research. The field is rapidly evolving, with new therapies and clinical trials on the horizon. Ask your healthcare provider to keep you informed about emerging treatment options and whether they may be suitable for you in the future.

WHEN TO ASK YOUR DOCTOR ABOUT LP(A) TESTING

Many people with elevated Lp(a) have no symptoms, which is why testing can be an important step in understanding your heart health. Consider talking to your healthcare provider about an Lp(a) test if you have:

- ✓ A **family history of high Lp(a)**
- ✓ A **personal or family history of premature cardiovascular disease** (before age 45 for men, or 55 in women)
- ✓ **Familial hypercholesterolemia (FH)** – a genetic condition causing high LDL cholesterol from birth
- ✓ **High LDL cholesterol levels** on your recent lipid panel test
- ✓ A diagnosis of **aortic valve stenosis**
- ✓ **Peripheral arterial disease (PAD)** – a condition that causes reduced blood flow to the extremities, often described as poor circulation in the legs and feet

ABOUT
one-third
OF PEOPLE WITH
Hypercholesterolemia (FH)
ALSO HAVE
ELEVATED LP(A) LEVELS

FURTHER INCREASING
THEIR RISK OF
cardiovascular disease

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SUPPORTED BY AN EDUCATIONAL GRANT FROM
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