# 5 Things You Should Know About Elevated Lipoprotein(a)

1) **Elevated Lp(a) is a strong, independent risk factor for cardiovascular disease (CVD) and every adult patient should be screened once in their lifetime**. Elevated Lp(a) represents a major, often unrecognized, cause of premature CVD. Lp(a) levels typically reach a steady state after 5 years of age and remain relatively constant in the face of increasing age and changing lifestyle factors. Lp(a) screening can be done with a simple, non-fasting blood test that is covered in Ontario.[1-2]

2) **Lp(a) levels are >90% genetically determined and first-degree relatives of affected individuals should be screened**.[1] The gene encoding Lp(a) inheritance is transmitted in an autosomal codominant pattern: one allele from each parent. Cascade testing of affected individuals is therefore important to identify individuals at risk: in one study of 182 relatives of patients with elevated Lp(a), 68.1% had elevated levels themselves.[3]

3) **Lifestyle interventions are generally ineffective for reducing Lp(a) levels but are still recommended first-line in primary prevention cases to lower global CVD risk**. As per CCS guidelines, primary prevention for those with Lp(a) levels ≥50mg/dL (≥100nmol/L) consists of "intensive health behaviour modification counselling and management of other ASCVD risk factors."[1] A low carbohydrate diet high in saturated fat may reduce Lp(a) by approximately 15%. Fasting and physical activity have no significant impact on Lp(a).[4]

4) **Currently available pharmacotherapy for elevated Lp(a) is limited.** Statin therapy is ineffective in lowering Lp(a) levels but should still be used as otherwise indicated, for example when addressing concomitant elevation in LDL-C or in secondary prevention cases.[1,4] PCKS9 inhibitors have been shown to reduce Lp(a) levels to a modest degree, up to 27%, and may be considered in secondary prevention.[5] Lipoprotein apheresis can serve as a rescue therapy for severe Lp(a) elevation but is not a readily available, scalable option.

5) **Promising new targeted therapies are being tested that appear to lower Lp(a) levels dramatically**. Antisense and small interfering RNA (siRNA) agents such as Pelacarsen and Olpasiran are currently under evaluation, with results from phase 2 trials showing notable reductions in Lp(a): 35-80% with Pelacarsen and 75-110.5% with Olpasiran.[6-7] The results of larger phase 3 trials are eagerly anticipated in coming years.

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