

Lipoprotein(a) (Lp(a))

Lipoprotein(a) (Lp(a)) is one of the lipoprotein types, which is associated with a higher risk of cardiovascular diseases [1].

Lp(a) molecule consists of two components: apolipoprotein(a) and apoB100 [2].

Epidemiological and genetic research studies have shown that high levels of Lp(a) can cause atherosclerotic cardiovascular disease [2–4]. Moreover, elevated Lp(a) level is also a risk factor for calcific aortic valvular disease [2, 3].

Lp(a) level itself is mainly determined by genetic factors and it is much less influenced or not influenced at all by other factors, for example, diet or physical activity [1–4].

Because of the above mentioned reasons, this test may be recommended for patients with a family history of either atherosclerotic cardiovascular disease or high levels of Lp(a) [1, 3, 4].

In 2022, the European Atherosclerosis Society published an updated consensus statement regarding Lp(a) [5]. They recommend measuring Lp(a) level at least once in adults. Based on their data, high level of Lp(a) is associated with atherosclerotic cardiovascular disease and aortic valve stenosis. It should be also noted that according to the European Atherosclerosis Society, there is not enough evidence of Lp(a) increasing the risk for venous thromboembolism.

The test is performed by taking a blood sample from a vein. Fasting is usually recommended before taking the blood sample [6].

In general, the test results should be interpreted by a doctor and, among other factors, the characteristics of a specific population need to be considered as well.

Still, based on the data from some of the scientific sources, patients with Lp(a) level >50 mg/dL have a high risk of cardiovascular diseases [1, 4–6]. According to the European Atherosclerosis Society consensus statement, it is recommended to consider Lp(a) level of 30–50 mg/dL as a “grey zone” [5].

References:

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