

Elevated lipoprotein(a) found to increase the risk of recurrent coronary heart disease

June 13 2023



Space-filling model of the Cholesterol molecule. Credit: RedAndr/Wikipedia

Increased levels of lipoprotein(a), a variant of "bad cholesterol" in the bloodstream, are a risk factor for recurrent coronary heart disease (CHD) in people aged 60 or over, according to the results of a new study

which tracked the issue over the course of 16 years.

The results, published today in *Current Medical Research & Opinion*, suggest that current cholesterol-lowering medications may not be effective at reducing the risk of recurrent CHD—such as a heart attack—due to elevated Lp(a).

"This finding adds to growing evidence of a relationship between increased Lp(a) and the risk of recurrent CHD," says lead author Associate Professor Leon Simons, from the School of Clinical Medicine, at the University of New South Wales Sydney. "It is well-established that people who have already experienced CHD are at very high risk of another event. Our new results indicate that new therapeutics in development that aim to reduce elevated Lp(a) might help prevent recurrent disease. However, the potential clinical benefit of therapy to reduce elevated Lp(a) is yet to be confirmed."

CHD is the most common type of heart disease. It occurs when the [arteries](#) that supply the heart with oxygen-rich blood become narrowed by a build-up of fatty material within their walls. It is the most common cause of heart attack and was the single biggest killer of both men and women worldwide in 2019.

High levels of cholesterol in the blood can increase the risk of CHD. Cholesterol travels through the blood on lipoproteins, which are made of protein and fat. Lipoproteins include low-density lipoprotein (LDL), high-density lipoprotein (HDL) and Lp(a). LDL cholesterol is often called "bad cholesterol" because it collects in blood vessel walls, increasing the chances of cardiovascular disease. Lifestyle changes and/or medications, like [statins](#), may help to get a person's cholesterol numbers into the healthy range.

While previous research has indicated that high levels of Lp(a) are also

an important risk factor in the development of CHD, most of these studies have looked at Lp(a) levels and the risk of a first CHD event. The current study looked at whether elevated Lp(a) is predictive of a second or recurrent CHD event. It involved 607 Australians aged 60 years and over, all with prevalent CHD, who were followed for 16 years as part of the Dubbo study. There were 399 incident CHD cases.

The researchers found that:

- The median Lp(a) in people who had a recurrent CHD event was 130 mg/L, compared to 105 mg/L in those who did not.
- 26% of people who had a recurrent CHD event—and 19% of those who did not—had Lp(a) levels of >300 mg/L.
- 18% of people who had a recurrent CHD event—and 8% of those who did not—had Lp(a) levels of >500 mg/L.

In senior citizens with prior CHD, elevated Lp(a) in the top 20% of the population distribution (>355 mg/L) predicted a 53% excess risk of a recurrent CHD event, compared with those in the lowest 20% of the population distribution (

Citation: Elevated lipoprotein(a) found to increase the risk of recurrent coronary heart disease (2023, June 13) retrieved 15 May 2024 from <https://medicalxpress.com/news/2023-06-elevated-lipoproteina-recurrent-coronary-heart.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.