

Headline: Is LDL Really the Bad Cholesterol?

Over the past few decades, strong claims and arguments have been made about how to avoid the leading cause of death, heart disease. But could the rush to find definitive answers backfire?

I, along with a growing number of doctors and researchers, believe that higher LDL levels alone do not directly cause heart disease.

From middle school to medical school, one of the first "facts" taught about heart disease is that high LDL levels contribute to plaque buildup in the arteries. Consequently, when a patient presents with elevated LDL levels, alarm bells ring, and doctors often resort to prescribing cholesterol-lowering medications, regardless of other variables.

However, with more health-conscious individuals undergoing rigorous blood testing, researchers have identified a population known as "Lean Mass Hyper-Responders" (LMHR). These individuals, who often follow a low-carbohydrate diet, typically exhibit higher levels of LDL, higher levels of HDL, and lower levels of triglycerides. Most importantly, they are lean and metabolically healthy, with normal blood sugar levels, blood pressure, and waist circumference.

Recent research has highlighted two significant findings: lean, physically active individuals may experience higher LDL levels on a low-carbohydrate diet, and when these levels are paired with high HDL and low triglycerides, they tend to exhibit low cardiometabolic risk (Norwitz et al., 2022).

To address past research that has concluded a causative link between LDL and cardiovascular risk, it is crucial to scrutinize the samples and details of those studies. In nearly all cases, participants were already at a higher risk for heart disease, with unhealthy HDL, triglycerides, blood sugar, blood pressure, and body fat levels.

Ultimately, while it is reasonable to assume that unhealthy individuals are more likely to have high LDL levels, this does not mean that elevated LDL levels alone signify risk or poor health.

Further research should be conducted on the LMHR population to better understand the true relationship between LDL and cardiovascular risk. Prescribing statins or other LDL-lowering medications indiscriminately to every patient with high LDL—without considering other health factors—may cause unnecessary harm to otherwise healthy individuals.