The Link Between ASCVD and LDL-C (Bad Cholesterol)

Cardiovascular disease (CVD) remains the world's leading cause of death, killing 17.3 million people a year globally.[1] In the United States, CVD claims more lives each year than all forms of cancer combined, and more than accidents, chronic lower respiratory disease, Alzheimer's disease or diabetes.[2]

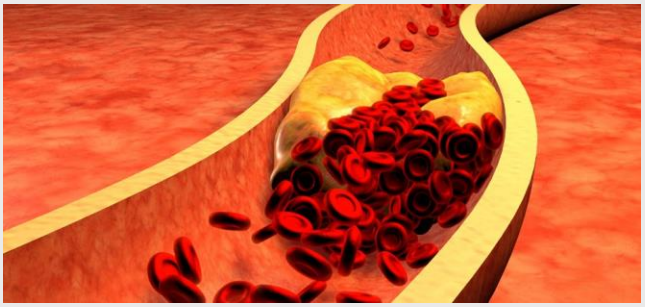
1 in 3 DEATHS
in the United States is a result of cardiovascular disease[9]

1 in 4
heart attacks and strokes are recurrent events[3]

2X THE RISK
for heart disease can be attributed to high cholesterol[10]

ATHEROSCLEROSIS

… is defined as the fatty buildup in the inner lining of the artery, also referred to as "atherosclerotic plaques." Atherosclerosis can lead to reduced blood flow to vital organs.



Source: American Heart Association.

Atherosclerotic plaques result from an accumulation of low-density lipoprotein cholesterol (LDL-C). In the early stages of atherosclerotic cardiovascular disease (ASCVD), this process occurs silently without people experiencing any symptoms. Over time, as the disease progresses, people may develop symptoms as a result of reduced blood flow. However, symptoms are often not experienced until the atherosclerotic plaque unexpectedly ruptures and causes a heart attack or stroke, of which one in four cases are estimated to be recurrent events.[3]

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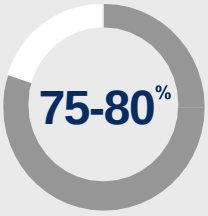
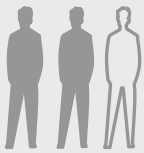


of patients do not reach LDL-C thresholds of <70 mg/dL with statins and/or ezetimibe[7,8]



UP TO TWO THIRDS

of patients are not adhering to statins one year after starting treatment[11]

Impact of Cumulative Exposure to Elevated LDL Cholesterol

Cumulative exposure to LDL-C is understood to be causal to ASCVD, and is the most readily modifiable risk factor.[4] The 2018 American College of Cardiology/American Heart Association (ACC/AHA) Guideline on the Management of Blood Cholesterol supports the principle that the risk of ASCVD events is proportional to LDL-C and recommends therapies to reduce LDL-C to very low levels across a spectrum of cardiovascular risk.[5] This guidance is based on large studies that consistently showed that lower LDL-C is better and that a sustained low-level LDL-C is needed to reduce the risk of ASCVD.[4]

Significant Unmet Need

Approximately 15.1 million people in the United States are currently treated with lipid-lowering therapies to manage cardiovascular risk.[6] Despite the widespread use of therapies to reduce LDL-C, the majority of patients do not reach LDL-C thresholds with statins and/or ezetimibe, leaving them at continued risk.[7,8]

Multiple factors may impact overall clinical outcomes.

- Many people do not receive appropriate or sufficient treatment. Not knowing their LDL-C levels is a contributing factor.
- Others do not take prescribed therapies as directed.
- Poor adherence to therapies that require frequent administration often undermines treatment success.
- Even when people take their oral therapies as prescribed, not all reach their LDL-C goals.[7]

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2. CDC National Vital Statistics Reports (2018): Deaths: Leading Causes for 2016.
3. Benjamin EJ, et al. Circulation. 2019;139:e56–e528.
4. Goldstein, Cell 2015; Skalen, Nature 2002; Tabas, Circ 2007; Nordestgaard, Eur Heart J 2013; Cuchel, Eur Heart J 2014. Ference, JACC 2018.
5. Grundy SM, et al. Circulation. 2019;139:e1082–e1143.
6. US National Health and Nutrition Examination Survey (CDC); NHANES FH definition includes all patients with baseline LDL-C> 190 mg/dl.
7. Lansberg et al, Vasc Health Risk Manag. 2018;14:91-102.
8. Cannon C, et al. JAMA Cardiol. 2017;2(9):959-966.
9. Benjamin EJ, et al. Circulation. 2019;139(10):e56-e528.
10. CDC Cholesterol Fact Sheet (2011): Prevalence of Cholesterol Screening in the Past 5 Years.
11. Turin A, et al. J Cardiovasc Pharmacol Ther. 2015;20:447-56.