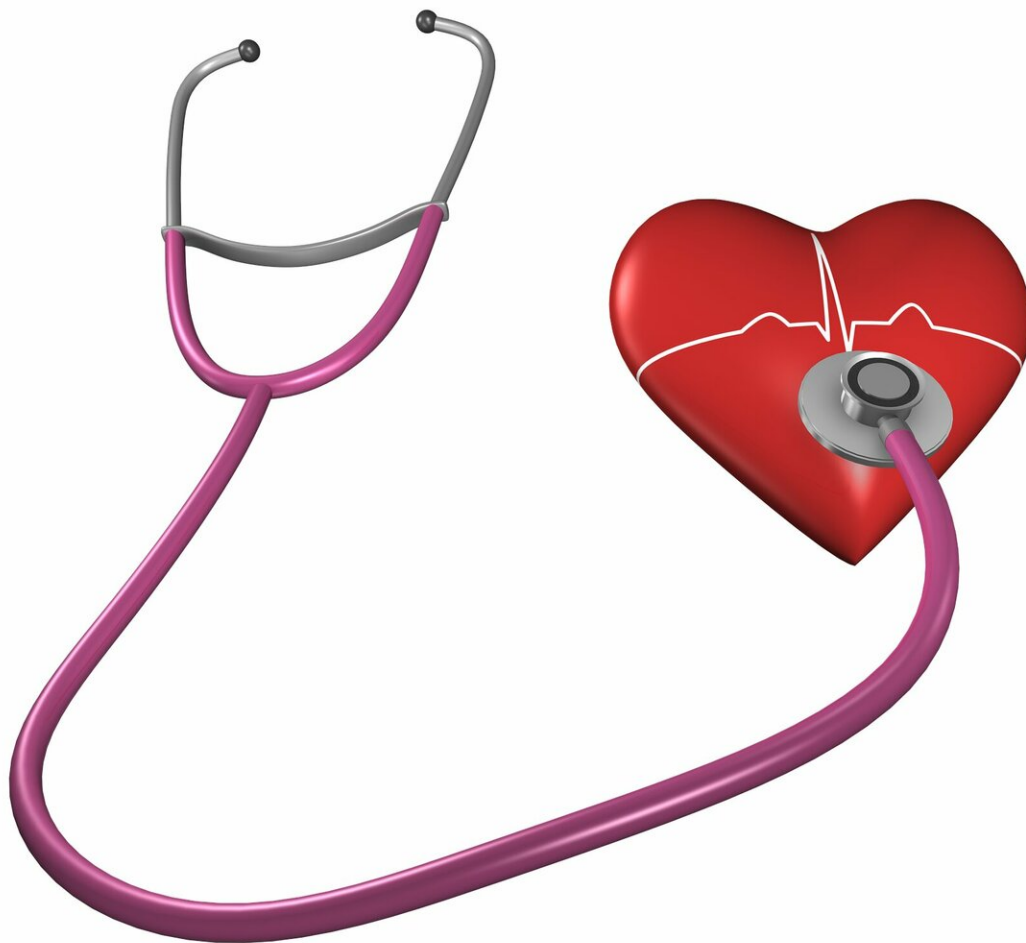


# Cholesterol levels in American adults declining since 2013 guideline release

November 11 2019

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The implementation of the 2013 American College of Cardiology/American Heart Association Guideline on the Treatment of Blood Cholesterol has led to improved overall cholesterol levels for American adults, especially those on cholesterol lowering medications, according to a study published today in the *Journal of the American College of Cardiology* that examined the impact of the highly anticipated guideline several years after release.

When released in 2013, the ACC/AHA Cholesterol Guideline changed the approach to [cholesterol](#) management for people at high risk of cardiovascular diseases by recommending a risk-based approach over a target LDL cholesterol, or bad cholesterol, approach. The guideline identified four major groups of patients for whom statins would have the greatest benefit for preventing stroke and heart attacks, while also emphasizing the importance of adopting a heart healthy lifestyle. A new cholesterol guideline was published in 2018, but the risk-based approach did not change.

Researchers examined how the 2013 guidance for cholesterol management impacted patients in the long run by examining nationwide trends in total cholesterol, triglycerides and LDL-C, as well as high cholesterol awareness and statin usage. The Centers for Disease Control and Prevention National Health and Nutrition Examination Survey (NHANES) was used to assess trends in lipid levels between 2005-2006, 2011-2014 and 2015-2016 (before, during and after the guideline release). Since there were less than 50 people in each NHANES cycle with an LDL-C of greater than or equal to 190 mg/dL, this group was excluded, along with people who were under the age of 20, pregnant or breastfeeding.

A total of 32,278 patients were assessed, and among Americans taking lipid-lowering medication, the age-adjusted total cholesterol declined from 206 mg/dL in 2005-2006 to 191 mg/dL in 2013-2014, with an additional drop to 187 mg/dl in 2015-2016. Average LDL cholesterol among adults taking lipid-lowering medication decreased from 122 mg/dL in 2005-2006 to 107 mg/dL in 2013-2014 to 101 mg/dL in 2015-2016.

Researchers found that the number of people being told they had high cholesterol increased from 63.6% in 2005-2006 to 69.4% in 2011-2012. The percentage remained unchanged through 2015-2016. The proportion of adults eligible for [statin use](#) that were actually taking a statin increased from 41.3% in 2005-2006 to 49.2% in 2015-2016. This percentage was higher among American adults with diabetes, which increased from 48.3% in 2005-2006 to 60.2% in 2015-2016.

Statin use among the subgroup of patients with a 10-year predicted ASCVD risk of greater than or equal to 7.5%, which is a group designated in the guideline for whom statins would have the most benefit, remained at approximately 30% with a modest decrease of 4% in 2015-2016. Researchers said this decrease in statin use could have stemmed from the recommendations in the guideline to have a risk-benefit discussion with shared decision-making when deciding on a statin prescription.

"From a public health perspective, the 2013 guidelines have seemingly improved overall cholesterol levels among American adults on statins," said Pankaj Arora, MD, senior author of the study and physician scientist in the Division of Cardiovascular Disease, University of Alabama at Birmingham. "The areas that are unchanged or have decreased since guideline implementation are awareness of high cholesterol and statin use within the highest risk groups. Targeting gaps in clinician guideline education and in patients' perception on [statin](#)

safety may improve guideline dissemination further."

Provided by American College of Cardiology

Citation: Cholesterol levels in American adults declining since 2013 guideline release (2019, November 11) retrieved 15 April 2023 from

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