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The Incredible Edible Egg?

One large egg contains approximately 186 mg of cholesterol and seemingly enough controversy to last a lifetime. Historically, dietary cholesterol, and therefore egg intake, was restricted to reduce cardiovascular disease (CVD) risk. More recent evidence, however, suggests a more nuanced relationship between eggs, dietary cholesterol, blood lipids, and CVD.[1]

The 2015–2020 and 2020–2025 Dietary Guidelines for Americans eliminated the longstanding limit of 300 mg/day of dietary cholesterol, although they continued to recommend minimizing its intake.[2,3] The 2025–2030 guidelines do not specify a quantitative dietary cholesterol limit and explicitly include eggs among recommended protein foods, while maintaining the recommendation that saturated fat should not exceed 10% of total daily calories.[4] Similarly, the 2026 ACC/AHA multisociety dyslipidemia guideline emphasizes dietary patterns that limit saturated fat and replace it with unsaturated fat.[5]

This distinction is important. In a 2025 randomized crossover trial, 61 adults were assigned to three 5-week isocaloric diets differing in egg consumption, dietary cholesterol, and saturated fat content. Saturated fat intake was positively associated with LDL-C across all dietary patterns, yet dietary cholesterol intake was not associated with LDL-C.[6] Although the egg-containing, low-saturated-fat diet reduced LDL-C compared with the high-saturated-fat control diet, it also increased small LDL particle concentrations and decreased large LDL particle concentrations.[6] The clinical implications of these changes remain uncertain.

Moreover, the type of fat replacing saturated fat matters. Replacing saturated fat with unsaturated fat, particularly polyunsaturated fat, is associated with reduced CVD risk, whereas replacement with refined carbohydrates does not confer comparable benefits.[7]

Long-term randomized trials examining egg consumption and cardiovascular events are lacking, leaving outcome evidence largely observational.[8] Several large prospective studies and meta-analyses have found no significant association between consumption of approximately one egg daily and overall CVD risk.[9–11] Conversely, other analyses have associated greater egg consumption with incident CVD or CVD mortality, particularly in U.S. cohorts.[12,13]

Substitution may also matter. Observational research has shown that replacing animal protein with plant protein is associated with lower overall and cardiovascular mortality.[14] These findings reinforce the importance of considering the foods that eggs replace within an individual's overall dietary pattern.

Why the conflicting results? Eggs are not consumed in isolation. Their associations with CVD may depend on what they replace and what accompanies them. Eggs consumed with vegetables and whole grains represent a different dietary pattern from eggs routinely accompanied by bacon, sausage, butter, and refined carbohydrates. Moreover, individual LDL-C responses to dietary cholesterol vary, warranting individualized counseling, particularly for patients with dyslipidemia or elevated CVD risk.[1,5]

Accordingly, the 2026 American Heart Association dietary guidance emphasizes overall dietary patterns and no longer identifies dietary cholesterol as a primary cardiovascular risk-reduction target for most individuals.[15] However, this does not establish that eggs are cardioprotective nor that unrestricted consumption is advisable.

Rather than focusing exclusively on eggs or milligrams of cholesterol, cardiovascular nutrition counseling should emphasize the entire plate: saturated fat, food substitutions, overall dietary quality, and the individual patient.

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