

Avocado Consumption and LDL-Cholesterol Reduction: An Umbrella Review of Systematic Reviews and Meta-Analyses

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RESUMO

Dyslipidaemia is one of the main modifiable risk factors for cardiovascular disease, and dietary interventions have been widely investigated as non-pharmacological strategies for cardiometabolic risk management. Avocado, due to its high content of monounsaturated fatty acids, fibre, and bioactive compounds, has been associated with potential beneficial effects on lipid profile. This study aimed to synthesise high-level evidence on the effects of avocado consumption on LDL-cholesterol reduction in adults. An umbrella review of systematic reviews and meta-analyses was conducted in accordance with Cochrane methodological recommendations and registered in PROSPERO. Searches were performed in EMBASE, MEDLINE/PubMed, Scopus, Web of Science, LILACS, CINAHL, and the Cochrane Library for studies published up to June 2024. Systematic reviews and meta-analyses evaluating avocado consumption and its effects on lipid markers in adults were eligible. Methodological quality and certainty of evidence were assessed using PRISMA 2020, AMSTAR 2, and GRADE. Eight reviews met the eligibility criteria. Overall, the main findings consistently indicated reductions in LDL-cholesterol among individuals with dyslipidaemia or hypercholesterolaemia, with effect magnitudes ranging from approximately 9.4 to 17 mg/dL, alongside reductions in total cholesterol in part of the included reviews. In contrast, findings for HDL-cholesterol and triglycerides were inconsistent across studies. Methodological appraisal revealed important variability in review quality, with predominantly low to very low certainty of evidence for several lipid outcomes. In conclusion, avocado consumption may contribute to lowering LDL-cholesterol, particularly in individuals with pre-existing lipid abnormalities, suggesting a potential benefit in the prevention and management of chronic cardiometabolic diseases. However, methodological heterogeneity and limitations in the quality of evidence indicate the need for more standardised and longer-term clinical trials.

Palavras-chave: Avocado; LDL-cholesterol; Dyslipidaemia; Cardiovascular Risk; Umbrella Review.