

Is a low carbohydrate diet better than a balanced-carbohydrate diet for reducing weight and cardiovascular risk?

Clinical Question	How do low-carbohydrate weight-reducing diets compare to weight-reducing diets with balanced ranges of carbohydrates, in relation to changes in weight and cardiovascular risk, in overweight and obese adults?
Bottom Line	<p>This systematic review failed to show that low-carbohydrate weight-reducing diets are superior to balanced-carbohydrate weight-reducing diets, with little or no difference in weight reduction and cardiovascular risk factors over the short (three to 8.5 months) and long term (one to two years).</p> <p>The small pooled mean differences in weight reduction between the diets (about 1 to 2 kg), while statistically significant in the short term, were not clinically important in the short or long term in an overweight and obese adult, without or with type 2 diabetes mellitus (low-to moderate-certainty evidence).</p> <p>Most trials included participants without diagnosed cardiovascular disease or events at baseline, and average baseline LDL cholesterol concentrations and DBP across the trials were within the normal ranges defined for people without coronary artery disease. In people with lipid disorders and variability with atherogenic lipoprotein response, caution in recommending low-carbohydrate and consequent high-fat diets is warranted. Evidence on participant-reported adverse effects over two years was limited and we could not draw any conclusions about these.</p>
Caveat	The interpretation of most weight reduction trials is constrained by small samples, a lack of blinding, and large loss to follow-up, which were also observed across the trials in this review. None of the trials in the review were judged as having low risk of bias overall. The overall risk of bias of outcomes across trials in participants without and with T2DM was predominantly high, largely due to high proportions of missing outcome data in many trials.
Context	Debates on effective and safe diets for managing obesity in adults are ongoing. Low-carbohydrate weight-reducing diets (also known as 'low-carb diets') continue to be widely promoted, marketed and commercialised as being more effective for weight loss, and healthier, than 'balanced'-carbohydrate weight-reducing diets.
Cochrane Systematic Review	Naude CE, Brand A, Schoonees A, Nguyen KA, Chaplin M, Volmink J. Low-carbohydrate versus balanced-carbohydrate diets for reducing weight and cardiovascular risk. Cochrane Database of Systematic Reviews 2022, Issue 1. Art. No.: CD013334. DOI:

10.1002/14651858.CD013334.pub2. This review contains 61 trials with a total of 6,925 participants.

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Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013334.pub2/full>