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### Low-carbohydrate diets, weight loss and cardiovascular disease

Low-carbohydrate (LC) diets have gained in popularity due to reports of increased weight loss compared with other more conventional diets when consumed either *ad libitum* or during energy restriction. However, while greater weight loss does occur over the short term, over the longer term weight loss on a LC diet is similar to that achieved with other dietary patterns. LC diets have consistently been shown to reduce circulating triglyceride concentrations and increase HDL, thus potentially reducing cardiovascular disease (CVD) risk. Nevertheless, there is also evidence that LC diets increase LDL and impair brachial artery flow mediated dilatation (FMD), and thus may increase CVD risk. However, a recent meta-analysis of randomized controlled trials indicated that LC diets only increase LDL over the short term, and actually decrease LDL over the longer term. Furthermore, a recent meta-analysis of cross sectional studies reported no association between LC intake and the risk of developing CVD, or CVD mortality. Thus, LC diets do not appear to increase CVD risk and reflect a dietary pattern that might assist people with a preference for LC style foods to achieve a healthy body weight.

#### Biography

Jonathan Buckley completed his Ph.D. in Exercise Physiology in 1997 from the University of Adelaide, South Australia. He is Director of the Nutritional Physiology Research Centre, one of Australia's leading research centres evaluating the health effects of diet and physical activity. He is Deputy Editor-in-Chief of the journal *Nutrients*. His work has resulted in more than 100 publications, as well as contributing to changes in international food policy and underpinning 10 patents for novel foods and exercise technologies.

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