National Lipid Association Releases Comprehensive Scientific Review of the Effects of Low-Carb and Very-Low-Carb Diets on Body Weight, Dyslipidemia, and other Cardiometabolic Risk Factors

MINNEAPOLIS, MN – A comprehensive review of scientific evidence that analyzes the impact of low-carbohydrate and very-low-carbohydrate diets (including ketogenic diets) on cardiometabolic risk factors and body weight was released today by the National Lipid Association (NLA).

Presented at the organization’s 2019 Fall Clinical Update (Sept. 13-15) in Minneapolis, the statement offers conclusions regarding the potential benefits, risks, and evidence gaps regarding low-carbohydrate and very-low-carbohydrate diets and emphasizes the importance of an evidence-based cardioprotective dietary pattern and active lifestyle to promote cardiovascular health. While the statement acknowledges evidence supporting short-term benefits of low- and very-low-carbohydrate diets, including appetite suppression, triglyceride reduction, and improved glycemic control in patients with pre-diabetes and type 2 diabetes, an examination of the effect of such diets also revealed potential disadvantages, including an increase in low-density lipoprotein cholesterol in some individuals and difficulty with long-term adherence.

“I believe this NLA Scientific Statement is the first to examine the effect of low-carbohydrate and very-low-carbohydrate diets on cardiometabolic risk factors (lipids/lipoproteins, glycemic control, blood pressure), body weight and other variables with a comprehensive examination of systematic reviews and meta-analyses,” said lead author Carol Kirkpatrick, PhD, RDN, MPH, CLS, FNLA, Wellness Center Director and Clinical Associate Professor, Kasiska Division of Health Sciences, Idaho State University Wellness Center. “It is an important distinction.”

“The timing of the findings is particularly relevant with the resurgence in popularity of these diets as a weight-loss strategy, without a full understanding of their impact on long-term cardiovascular health,” she added.

“This analysis has produced important key recommendations for clinicians to share with patients who may be interested in following a low- or very-low-carbohydrate diet to make them aware of the potential risks that accompany the potential benefits of such diets. The key recommendations also emphasize the importance of lifestyle habits that promote long-term cardiovascular health, including a cardioprotective eating pattern that individuals can maintain longterm, and physical activity.”

Among the key takeaways included in the statement:

- Low- and very-low-carbohydrate diets, including ketogenic diets, are not superior to other weight loss diets and may severely restrict nutrient-dense foods that offer cardiovascular benefits.
- While they may have advantages on appetite and reducing triglyceride levels and diabetes medication use, current evidence showed mixed effects on low-density lipoprotein cholesterol levels.
- There is no clear evidence for advantages related to other cardiometabolic risk markers.
While some patients prefer a low-carbohydrate eating pattern, which may be reasonable for short periods of time (<6 months), long-term compliance is challenging, and long-term benefits and risks are not fully understood.

Regardless of the weight loss strategy chosen, a patient-clinician discussion about the risks and benefits and patient preference is of vital importance, since many patients follow the diets without medical supervision, which can increase the risk of adverse effects.

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The full scientific statement manuscript will be released in the Volume 13, Issue 4 Journal of Clinical Lipidology and will be accessible online at: www.lipidjournal.com. To review the uncorrected proof of the manuscript, visit: https://www.lipid.org/nla/review-current-evidence-and-clinical-recommendations-effects-low-carbohydrate-and-verylow.

ABOUT THE NATIONAL LIPID ASSOCIATION
The NLA is a multidisciplinary specialty society focused on prevention of cardiovascular disease and other lipid-related disorders. The NLA’s mission is to enhance the practice of lipid management in clinical medicine, and one of its goals is to enhance efforts to reduce death and disability related to disorders of lipid metabolism in patients. Members include physicians (MDs and DOs) and other health care professionals from an array of disciplines including PhDs researchers, nurses, nurse practitioners, physician assistants, pharmacists, exercise physiologists, and dietitians.

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