

Egg Nutrition Center



Protein Research

Layman DK, Clifton P, Gannon MC, Krauss RM, Nuttall FQ. Protein in optimal health: heart disease and type 2 diabetes. *Am J Clin Nutr* 2008;87:1571S-5S.

Diets with increased protein and reduced carbohydrates have been shown to improve body composition, lipid and lipoprotein profiles, and glycemic regulations associated with treatment of obesity and weight loss. Derived from these outcomes, high-protein, low-carbohydrate diets are also being examined for treatment of heart disease, metabolic syndrome, and type 2 diabetes. High-protein, low-carbohydrate diets have been found to have positive effects on reducing risk factors for heart disease, including reducing serum triacylglycerol, increasing HDL cholesterol, increasing LDL particle size, and reducing blood pressure. These diets appear particularly attractive for use with individuals exhibiting the atherogenic dyslipidemia of metabolic syndrome. High-protein, low-carbohydrate diets have also been investigated for treatment of type 2 diabetes with positive effects on glycemic regulation, including reducing fasting blood glucose, postprandial glucose and insulin responses, and the percentage of glycated hemoglobin. Specific effects of increasing protein compared with reducing carbohydrates have not been extensively investigated. Additional research is needed to determine specific levels of protein, carbohydrate, and fat for optimum health of individuals who differ in age, physical activity, and metabolic phenotypes.