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Pecan nuts: A review of reported bioactivities and health effects

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Abstract

Background: Food choices represent a highly significant approach to combat human obesity. Dietary intake of lipids, especially polyunsaturated and monounsaturated fatty acids, is gaining popularity in the effort to reduce or eliminate the occurrence of obesity. Pecan (*Carya illinoinensis*) nuts are an abundant source of these dietary fatty acids. Moreover, they are a rich source of epigallocatechin-3-gallate (EGCG), a polyphenol with a variety of health-beneficial properties.

Scope and Approach: In this review, we summarize the literature reports examining physiological effects associated with pecan nuts consumption and described effects of their bioactive constituents.

Key Findings and Conclusions: The growing body of evidence suggests including pecan nuts into obesity management strategies. The consumption of pecan nuts can mitigate inflammation by reducing the extent of the synthesis of inflammatory mediator molecules. Pecan nuts can also counteract the pro-inflammatory effects of a diet rich in commonly overconsumed saturated fatty acids, characteristic of the Western diet. Additionally, consumption of pecans and other nuts has been linked to reduced risk of physiological parameters associated with cardiovascular disease or metabolic disorders. Diets enriched with tree nuts and peanuts can modulate the blood level of cholesterol, adiposity, and insulin resistance. Almonds and walnuts have been so far the most studied nuts, and studies with them have led to a greater understanding of the protective effects of diverse tree nuts on human physiology. In this review, we summarize the available data indicating that pecan nuts exert similar health-promoting benefits.