

Medicinal Plants with Anti-Obesity Effects: A Special Emphasis on Their Mode of Action

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ABSTRACT

Objective: Obesity is a major public health issue in developed and developing countries. An individual with a body mass index equal to or higher than 30 is considered obese. The pathophysiology of obesity included alterations in neuropeptides, hormones, and adipokines in the brain, gut, and adipose tissue. This review was designed to investigate the plants with anti-obesity effects as alternative weight loss remedies with minimal adverse effects.

Materials and Methods: PubMed, Science Direct, Web Science, and Scopus were searched to investigate the plants which possessed anti-obesity effects.

Results: Many medicinal plants possess anti-obesity activity via different mechanisms, including pancreatic lipase activity inhibition, thermogenesis enhancement, adipocyte differentiation prevention, boosting lipid metabolism, and lowering appetite.

Conclusion: Plants contain many pharmacologically active ingredients that possess anti-obesity by many mechanisms. Further investigations were required to determine the molecular mechanism and the clinical efficacy of the natural anti-obesity agents.

Keywords: Obesity, Anti-obesity, Medicinal Plants, Bodyweight, Appetite, Lipase activity, Thermogenesis Anti-obesity

Bahrain Med Bull 2023; 45 (2): 1421 - 1427

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