

Review of Antidiabetic Gummies Formulation using Herbal Drugs: Efficacy, Formulation Techniques, and Future Prospects

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Abstract: Antidiabetic gummies formulated with herbal drugs have emerged as a promising alternative for managing diabetes mellitus. This review comprehensively evaluates the efficacy, formulation techniques, and future prospects of such formulations. Herbal drugs possess inherent bioactive compounds with antidiabetic properties, offering a natural approach to glycemic control. Various studies have demonstrated the effectiveness of herbal extracts, such as bitter melon, fenugreek, and cinnamon, in lowering blood glucose levels. Formulation techniques, including solvent extraction, encapsulation, and incorporation into gummy matrices, are pivotal in preserving the bioactivity of herbal compounds and enhancing their stability.

Moreover, the incorporation of natural sweeteners and flavoring agents enhances palatability and consumer acceptance. Despite promising advancements, challenges persist in standardizing herbal extracts, ensuring batch-to-batch consistency, and addressing regulatory concerns. Additionally, future prospects lie in the exploration of novel herbal sources, synergistic formulations, and controlled-release strategies to optimize therapeutic outcomes. Overall, antidiabetic gummies formulated with herbal drugs offer a convenient, palatable, and potentially effective approach for diabetes management, warranting further research and development in this burgeoning field

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