

Aloe Vera (*Aloe Barbadensis* Miller) is A Medicinal Plant

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Abstract

Aloe vera (*Aloe barbadensis* Miller) is a widely recognized medicinal plant belonging to the family Asphodelaceae and has been used in traditional systems of medicine for centuries. The plant is characterized by its succulent, fleshy leaves containing a transparent inner gel and a yellowish latex layer. Aloe vera gel contains various biologically active constituents, including polysaccharides, vitamins, minerals, enzymes, amino acids, and phenolic compounds, which contribute to its medicinal and pharmaceutical importance. Traditionally, Aloe vera has been used for the management of minor skin injuries, burns, irritation, and various digestive complaints. Its moisturizing, soothing, and antioxidant properties have also contributed to its extensive use in cosmetic and personal-care products. Recent scientific research has investigated its potential antimicrobial, anti-inflammatory, antioxidant, wound-healing, and other biological activities. The composition and biological effects of Aloe vera may vary depending on cultivation conditions, plant maturity, processing methods, and the part of the plant used. Therefore, appropriate processing and quality control are important for obtaining consistent and safe preparations. Although Aloe vera has considerable therapeutic and commercial potential, its medicinal applications should be supported by appropriate scientific evidence, particularly regarding dosage, formulation, long-term use, and possible adverse effects. Overall, Aloe vera represents an important medicinal plant with significant traditional, pharmaceutical, nutritional, and cosmetic value. Continued research may further clarify its active constituents and help establish evidence-based applications of this versatile plant.

Keywords: Aloe vera, *Aloe barbadensis* Miller, Medicinal Plant, Herbal Medicine, Aloe Vera Gel, Phytochemicals, Antioxidant Activity, Anti-inflammatory Activity, Wound Healing, Traditional Medicine.

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