



WOUND CARE: UTILIZING MANGO LEAVES AS A WOUND HEALING CREAM

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ABSTRACT

This study explores the potential of *Mangifera indica* (mango leaves) in wound healing by formulating a topical cream with its bioactive compounds. Mango leaves are rich in polyphenols, flavonoids, and antioxidants, which exhibit anti-inflammatory and antimicrobial properties beneficial for wound recovery. The research focuses on specific wound types, including cuts, lacerations, and incisions, while excluding others such as abrasions and crush injuries. Conducted at Balayan Senior High School during the academic year 2024-2025, the study tested the efficacy of the mango leaf-based cream on three Wistar rats, using two concentrations of ethanol extracts—15% and 20%.

Findings indicated that the cream with a higher ethanol concentration accelerated wound healing, reduced inflammation, and enhanced collagen deposition. The wounds treated with the 20% concentration demonstrated a faster recovery rate compared to those treated with the 15% concentration and the untreated control. Additional ingredients such as honey and beeswax were incorporated to enhance the wound healing process. The testing period

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spanned four days, showing minor differences in healing rates but supporting the potential of mango leaf extract as a natural wound treatment.

While the results show promising wound-healing benefits, this study has its limitations. With only a small sample size and no clinical trials yet, more research is needed to fully understand its effectiveness. Testing on a larger group and eventually on humans will help confirm whether mango leaf-based wound healing creams are truly safe and effective for medical use.



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