

Honey and the Treatment of Wounds and Burns by Maureen Williams, ND

http://www.beekeeping.com/articles/us/honey_treatment.htm



Healthnotes Newswire - Topical application of honey is beneficial in the treatment of wounds and burns, according to a review article in the *Journal of Wound, Ostomy, and Continence Nursing* (2002;29:295–300).

Honey is a highly concentrated sugar solution produced by honey bees, primarily from the nectar of plants. It is composed of carbohydrates (sugars), water, enzymes, amino acids, pigments, pollen, wax, and other trace constituents from both bees and plants. Honey has been used in the treatment of burns and wounds for many centuries, with documents describing this use dating back to 1700 BC.

A number of properties inherent to honey might contribute to its ability to fight infection and promote healing. Its high sugar content allows it to draw infection and fluid from wounds by a process called “osmosis.” Honey prevents bacterial growth through its acidic pH and through the work of an enzyme that produces small amounts of hydrogen peroxide. Its ability to keep the area around a wound moist and protected promotes fast healing and prevents scarring.

Honeys also contain components from the specific plants used by the bees in their production, and it is speculated that some of these components might further add to the antibacterial and wound-healing effects of certain honeys. The process of pasteurization, used to sterilize commercial honeys, destroys the enzyme involved in the production of hydrogen peroxide, rendering these honeys less antibacterial. Raw honeys maintain their enzymes, and honeys produced for therapeutic use are sterilized through an irradiation process that does not damage their constituents. There are currently two therapeutic honeys available: Medihoney of Australia and Active Manuka Honey of New Zealand. Both are derived from bees using the flowers of tea trees (*Leptospermum* spp.) as their source.

A number of studies have confirmed the antibacterial effects of honey in test tubes. One study found that different honeys had different levels of activity against specific bacteria. Studies on humans have reported that honey used as a wound dressing reduced infection, inflammation, pain, and odor, and promoted easy removal of dead tissue and rapid healing with little scarring.

Fifty-nine people with chronic wounds and ulcers participated in one preliminary study described in this review. The group included people with diabetic ulcers, burns, traumatic ulcers, gangrene, and other types of wounds. All had been treated with commercial wound dressings and antibiotics for periods of between one month and two years without results. Although 51 of the 59 wounds had been infected prior to honey treatment, all were free of infection within one week of starting honey dressing applications. In addition, inflammation and odor were markedly reduced and healing rapidly ensued.

Other studies have compared honey with other wound treatments. In one such study, honey was found to be as effective as, or more effective than, silver sulfadiazine (SSD), one of the most common topical treatments for burns. Fifty participants with superficial burns were randomly assigned to have their burns dressed with honey or SSD. Those treated with honey experienced faster reduction in inflammation and better infection control. Eighty-four percent of those treated with honey had satisfactory healing within 7 days and 100% by day 21, whereas 72% of those treated with SSD had satisfactory healing after 7 days and 84% by day 21. In another controlled trial, 900 participants with partial-thickness burns were randomly assigned to receive either honey dressings or other dressings. Honey was applied directly to the burns and covered with sterile dressings on alternate days. Those whose burns were treated with honey had faster healing and less scarring than those treated with other dressings. In the case of full-thickness burns, however, honey has been found to be inferior to other treatments.

This comprehensive review describes the enormous potential for honey as a therapeutic tool in the treatment of wounds and burns. It is nontoxic and inexpensive, and, despite theoretical concerns about introducing infection through the application of honey, no infections or other negative side effects have been noted. Further studies may help elucidate which specific honeys are most effective for the various types of wounds and burns.

Maureen Williams, ND, received her bachelor's degree from the University of Pennsylvania and her Doctorate of Naturopathic Medicine from Bastyr University in Seattle, WA. She has a private practice in Quechee, Vermont, and does extensive work with traditional herbal medicine in Guatemala and Honduras. Dr. Williams is a regular contributor to Healthnotes Newswire.