

# IS MEDICAL HONEY AN EFFECT TREATMENT FOR CHRONIC WOUNDS?

## OVERVIEW

The prevalence of chronic wounds in the elderly is a significant issue in New Zealand, not only in general practices, but also in nursing homes and hospitals. Many forms of treatment are expensive, time consuming and sometimes ineffective. Honey is now making a comeback as a treatment option as more reports of the effectiveness are being published. The purpose of this review was to explore the efficacy of medical honey when used as treatment on chronic wounds

## OBJECTIVE

To investigate the efficacy of medical honey on chronic wounds..

FIGURE 1

Wound dehiscence following removal of sutures



FIGURE 2

Granulation and epithelialisation after 35 days of treatment



FIGURE 3

Wound is functionally healed after three months



## 5 ACTIONS OF HONEY

**Anti-inflammatory:** Inflammation is the body's natural response to injury or infection and begins the healing process. However prolonged inflammation can cause damage to tissues and prevent healing. Honey has been reported to have anti-inflammatory properties due to the high antioxidant levels (Evans & Flavin, 2008).

**Antimicrobial:** The antimicrobial action of honey is due to the low acidity and high osmolarity (Evans & Flavin, 2008). Because of the supersaturated sugar solution of honey, the high sugar, low water content means that bacteria within a wound dressed with honey has insufficient levels of water to stimulate growth. The low pH of honey (3.5-4.5) also creates an environment that is inhospitable to micro-organisms (Sharp, 2009). The additional antimicrobial effect of honey comes from the hydrogen peroxide, which is a result of the dilution of honey in the wound exudate (Belcher, 2012).

**Reduction in wound malodor:** Malodor is common in many wounds and is caused by bacteria metabolizing amino acids; producing ammonia, amines, and sulphur compounds (Molan, 1998). The antibacterial and debriding action of honey destroys bacteria that produce malodor (Sharp, 2009).

**Debridement of slough and necrotic tissue:** The moist environment created when using honey aids in autolytic debridement. It has been suggested that there is enzymatic action when honey is applied to wounds. Inactive plasminogen in the wound matrix is converted to plasmin, which then breaks down fibrin clots attached to slough, thus removing necrotic tissue from the wound bed (Action & Dunwoody, 2008). Evans & Flavin (2008) stated that autolytic debridement is a characteristic of many wound dressings however the debriding action of honey has been recognized to be faster than alternate dressings.

**Moist wound environment:** The high sugar concentration results in osmosis at the wound bed and draws out exudate, debris and reduces edema therefore maintain a moist wound environment (Belcher, 2012).

## RECOMMENDATIONS FOR NURSES

- Undertake comprehensive and accurate wound assessment to see if honey is an appropriate treatment for the wound.
- Give patients the option to use medical honey.
- Fully inform patients of the effects, consequences and alternatives of proposed treatment options.
- Always use medical grade sterilized honey.

## CONCLUSION

In conclusion there was positive literature and research to support the use of medical honey in the treatment of chronic wounds but in numerous reports it was stated that there a need for mores specific research and that further study is required to examine the effect on medical honey on chronic wounds. There is evidence surrounding the promotion of wound healing and the antimicrobial effects of honey though this evidence is limited. However in clinical practice today affordability, clinical efficacy and ease of use are principal. Medical honey fulfills all of these criteria's and overall is a recommended form of treatment for all nurses involved in wound care.

Bailey Henderson

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