



# Is the use of surgical honey greater at healing venous leg ulcers compared to the use of hydrogel?



## Introduction:

The purpose of this literature review is determine what is the best treatment option available for the treatment of venous leg ulcers in clinical settings, often in client's personal homes. Literature on both the use of Honey and Hydrogel in the healing of venous leg ulcers was researched.

## Positives and Negatives of surgical honey use in the treatment in Venous leg ulcer healing

### Positives of Honey dressings

- Honey has antibacterial properties that kill bacteria whereby the wound become free of bacteria
- Lower level of infection
- High rates of slough removal
- Shown to kill MRSA bacteria (1)
- Low pH, balances wound environment (1)

### Negatives of Honey dressings

- Acidity of the honey causes pain in some patients wounds
- Expensive
- Not widely used in practice



## Venus Leg ulcers:

Venus leg ulcers arise when there is venous insufficiency. This refers to improper functioning of the one-way valves in the veins. Veins drain blood from the feet and lower legs uphill to the heart. If these valves malfunction then blood pools, forming an ulcer this is both extremely painful and makes the person prone to infection (2).

Venus leg ulcers affect 2% of the population.

The diagram below shows the way that blood is forced into the extracellular space causing ulceration of the tissue.



## Postives and Negatives of hydrogel use in Venous leg ulcer healing

'Hydrogel is 90% water in gel base'

### Postives of hydrogel dressings

- Cost effective
- No pain associated with the use of hydrogel
- Widely used in practice

### Negatives of hydrogel dressing

- Higher level of infection (1)
- Has no antibacterial activlty so antibiotics have to be chartered to help clear infection if this arises
- Low rates of slough removal



## Reference list:

- (1) Cowman, S., & Gethin, G. (2008) (1). Manuka honey vs. hydrogel a prospective, open label, multicentre, randomised controlled trial to compare desloughing efficacy and healing outcomes in venous ulcers. *Journal of Clinical Nursing*, 18(3), 466-474. doi:10.1111/j.1365-2702.2008.02558.x.
- (2) DermanetNZ. (2014). *What are leg ulcers*. Retrieved from: <http://dermnetnz.org/site-age-specific/leg-ulcers.html>.

## Image References

- Image (1) retrieved from:  
<http://dxline.info/diseases/venous-leg-ulcers>
- Image (2) & (3) retrieved from:  
<http://raphavascular.com/patient-education/leg-foot-ulcers/>
- Image (4) retrieved from:  
<http://www.veinexperts.org/veins/venous-ulcers.asp>
- Image (5) retrieved from:  
<http://careers.theguardian.com/careers-blog>

## Conclusion

While both of the above options still require compression bandage therapy (5) there is increasing evidence that the use of honey is the most effective and the fastest way of healing venous ulcers. Its honey universal antibacterial properties that make it a viable and effective way to treat venous leg ulcers in future practice.





Search Question and PICOT model:

PICOT Category	Information relating to question	Explanation
Patient/ Problem	Patient with venous leg ulcers and the use of manuka honey in the process of healing these ulcers.	Do ulcers heal faster with the use of manuka honey or are other options a better choice in the healing of ulcers. The purpose is to look for a more effective option
Intervention of interest	Patients without the use of manuka honey compared the healing process of ulcers using manuka honey. Compression therapy to be maintained throughout the process	Is there evidence to suggest there is differing changes to the healing if honey is used, there is one study that does not support the rapid healing of honey in ulcers while the others state there is marked improvement in the healing of ulcers when manuka honey is used
Comparison	The speed of healing without and with the use of manuka honey with comparison to other dressing available for the treatment of ulcers with hydrogel bases	Some of the studies found that the ulcers healed faster while there was one that found no real improvement and found that the honey dressing caused a lot of pain to the patients. Differencing results proved that different situations have different bearings on the process of healing
Outcome	The use of manuka honey showed increased healing times due to that of the common venous leg ulcer healing option of pressure stockings, with just the one study contradicting this outcome stating no real changes where observed	This is due to the effects the manuka honey has on a cellular level on the leg tissue. This then promote the faster healing of the ulcers by working on a tissue level clearing up the slough by working the tissue deep down due to honey large sugar content
Timeframe	Most of the ulcer healing in the studies where done over four weeks- 12 weeks	This was sufficient time in the studies to see if any progress was made in the ulcers healing process. There was also the inclusion by some that this was not long enough time for the ulcers to show significant change to the size of the ulcers.

(Whitehead, 2013)

Reference List

Whitehead, D. Searching and reviewing the research literature in Schneider, Z, & Whitehead, D. (2013). *Nursing and midwifery research methods and appraisal for evidence-based practice*. (4th ed.). Chatswood, Australia: Mosby Elsevier.