

Wound therapy

Welsh Wound Innovation Centre
& The University of Cardiff,
School of Medicine

Breaking the cycle of chronic wounds



At the Welsh Wound Innovation Centre (WWIC) we are devoted to embracing new models of care to tackle the silent epidemic of wounds. In collaboration with Firstkind we have evaluated the therapeutic effect of the geko™ device on wound healing outcomes over an 8 week period.

Through a case series evaluation we have generated evidence that fills us with interest and excitement. All patients treated gained benefit from the geko™ device. Many saw a reduction in ulcer size after only a short period of therapy. Perhaps the most important observation was the notable improvement in patient quality of life and a reduction of pain¹. We had not been expecting to see such a dramatic improvement using the geko™ device.

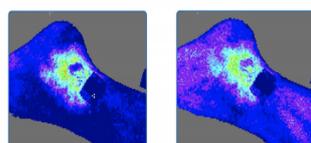
The results support use of geko™ in patients with hard-to-heal, painful venous and mixed leg ulceration, in conjunction with best practice standard care¹.

Results show¹:

- Reduction in wound surface area.
- An increased in granulation tissue formation.
- 7% of patients with wounds of venous aetiology (VLU) achieved complete re-epithelialisation over the 8-week evaluation period.
- **52%** reported a substantial reduction in wound pain.
- All patients reported a **100%** satisfaction with the geko™
- Patients reported the geko™ as easy to operate with minimal disruption to daily living.
- Patients were enabled to self-manage the device and take control over their symptoms whilst resuming their normal daily activities.



The geko™ device - Wound Therapy



Speckle contrast image of microcirculatory blood flow at baseline

Speckle contrast image of microcirculatory blood flow after activation of the geko™ device

[Professor Keith Harding –
Welsh Wound Innovation
Centre](#)

[Speckle imaging video
showing microcirculatory
blood flow at baseline and
with the geko™ device](#)

[switched on.](#)

Contrast speckle imaging data from a single WWIC case study (shown above) demonstrates a 225% increase in microcirculatory blood flow in the wound bed, and a 67% increase in microcirculatory blood flow surrounding the peri-wound area, after activation of the geko™ device. The increase in blood flow to the wound bed promotes conditions favourable to wound healing².

Benefits



Patient with venous leg ulcer (VLU).



Complete re-epithelialisation achieved in conjunction with compression therapy.

225%

225% increase in microcirculatory blood flow in the wound bed (p>0.001)

Downloads & Links

- [Paper – Prof. Keith Harding](#)
- [Abstract - Prof. Keith Harding](#)
- [The geko™ device Annotated Bibliography](#)
- [Brochure – geko™ wound therapy](#)
- [Other wound therapy collateral](#)

Related Studies & Guidance

- [Abstract - C. Harris – geko™ VLU case study series](#)
- [Paper - C. Harris – geko™ VLU case study series](#)
- [Abstract - C. Harris – geko™ VLU case study series](#)
- [Paper - C. Harris – geko™ VLU case study series](#)
- [Abstract – Harris – VLU long-term care residents](#)
- [Paper – Harris – VLU long-term care residents](#)
- [Poster - Das S - Microcirculatory changes VLU](#)
- [Canadian Wound Care Consensus Document](#)

References

1. N.J. Jones & Prof. Keith Harding et al. Abstract: A case series evaluating the geko™ neuromuscular electrostimulation device on lower limb wounds of differing aetiology.
2. Warwick D, et al. Microcirculation in the foot is augmented by neuromuscular stimulation via the common peroneal nerve in different lower limb postures: a potential treatment for leg ulcers. International Angiology 2015 April; 34(2):158-65.