Lower Leg Ulcers

Chronic wounds represent a silent epidemic that affects a large percentage of the world population and poses a major and gathering threat to the public’s health and the global economy.¹
What is the geko™ device?

The geko™ device is a Health Canada-registered muscle pump activator which is:

- Small (10g) and discreet, easy to use, self-contained, self-adhesive, battery-operated and completely recyclable
- Worn at the fibular head to stimulate the common peroneal nerve, gently and effectively activating the lower leg and foot muscle pumps
- With 10 settings it can be adjusted for patient comfort and optimal response
- Worn 6 hours per day, 6 days per week, each device lasts two days
How does the geko™ device impact blood flow and wound healing?

**When activated geko™ significantly increases:**

- Healing rates in lower limb and foot wounds of various etiologies when used as an adjunctive therapy in combination with evidence-based wound care\(^6\)-\(^{10}\)

- Venous and arterial volume and microcirculatory flow in the lower limbs in healthy individuals and those with peripheral arterial disease (ABPI 0.45 - 0.68)\(^2\)-\(^3\)

- Venous peak velocity with chronic venous insufficiency (CVI)\(^4\)

- Microcirculatory red blood cell flux:
  - by 1000% in healthy individuals (upper image below)\(^5\)
  - by 225% to the wound bed and 67% to the peri-wound skin in an infected venous ulcer (lower image below)\(^5\)

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**Images:**
- Baseline - The geko™ device turned off
- Infected ulcer
- The geko™ device activated but no foot twitch – 100% - 200% increase in microcirculatory flux
- Increase with heart systole - The geko™ device not activated
- Increase with the geko™ device activated
- The geko™ device at a higher setting to elicit foot twitch – 1,000% increase in microcirculatory flux
What benefits can the patient and healthcare professional expect?

In a series of case studies and trials:

Clinicians reported:
- Improved wound appearance\(^6-7,9\)
- Accelerated weekly healing rates and time-to-healing in patients who were adherent to the geko\(^\text{TM}\) and best practices\(^6-10\)
- Reduction in chronic edema\(^11-12\)
- Improved tolerance to therapeutic levels of compression therapy where required\(^6-7\)

Patients reported:
- Decreased nociceptive & neuropathic pain\(^6-7,9\)

Patients and Clinicians reported:
- Increased mobility and level of activity\(^6-7\)
- Improved quality of life\(^6-9,13\)
- Increased patient engagement with self-care\(^6-7\)

Breaking the cycle of chronic wounds
What are the benefits to the health care system?

- Potential for shorter length of stay with associated decreased utilization of wound care products and fewer nursing visits\textsuperscript{6-7,9}
- Improved patient satisfaction\textsuperscript{6-9,13}
- Estimated cost-savings of $2,500.00 per patient if used as a first-line adjunctive therapy\textsuperscript{10}

Where can I find more information?

Go to www.gekowound.ca to find the:

- How to use the geko™ wound therapy device “fitting” video
- Annotated bibliography - contains reference citations with brief summaries (found under “Other Wound Therapy Collateral”)
- Links to hemodynamic videos, published papers, testimonials, webinars and case studies
- Online learning courses www.gekolearning.ca
References


