

The geko[™] device

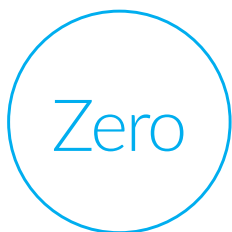
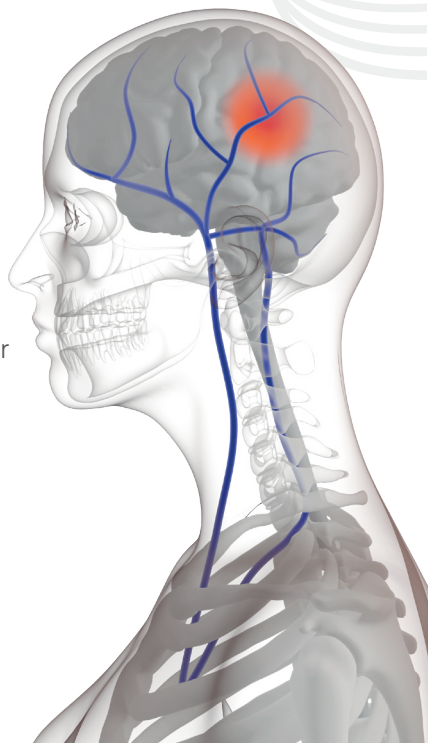
Providing increased blood flow
for better patient outcomes



VTE prophylaxis – Serving an unmet need in high-risk acute stroke patients⁵

A prospective comparative study assessed 1,000 acute stroke patients for VTE incidence at 90 days post discharge:

The study showed: 29.5% of patients were either contraindicated or unable to tolerate IPC*. 2.4% of patients prescribed IPC alone suffered a VTE event 0% of patients prescribed the geko™ device alone suffered a VTE event. Patients reported greater tolerance of the geko™ device compared to IPC.



No DVT or PE reported in patients in the geko™ device arm.



29.5% of patients were reported as either contraindicated or unable to tolerate IPC.

Health economics show the geko™ device is cost saving vs. the cost consequence of no VTE prophylaxis. Furthermore, the geko™ device provided an anti-stasis intervention where previously patients would have had no other intervention available to them, ensuring no immobile stroke patient, with a high risk of VTE, was without a mechanical VTE prophylactic intervention.

“The geko™ device is now in routine use and has marked significant change to our nursing practice. The audit has shown a need to use the geko™ when other VTE prophylaxis strategies are contraindicated or impractical, and provides an option where previously patients would have had no other intervention available to them.”

Dr. Indira Natarajan FRCP (UK) - Consultant Stroke Physician, Clinical Director Neurosciences, The Royal Stoke University Hospital



*Intermittent Pneumatic Compression

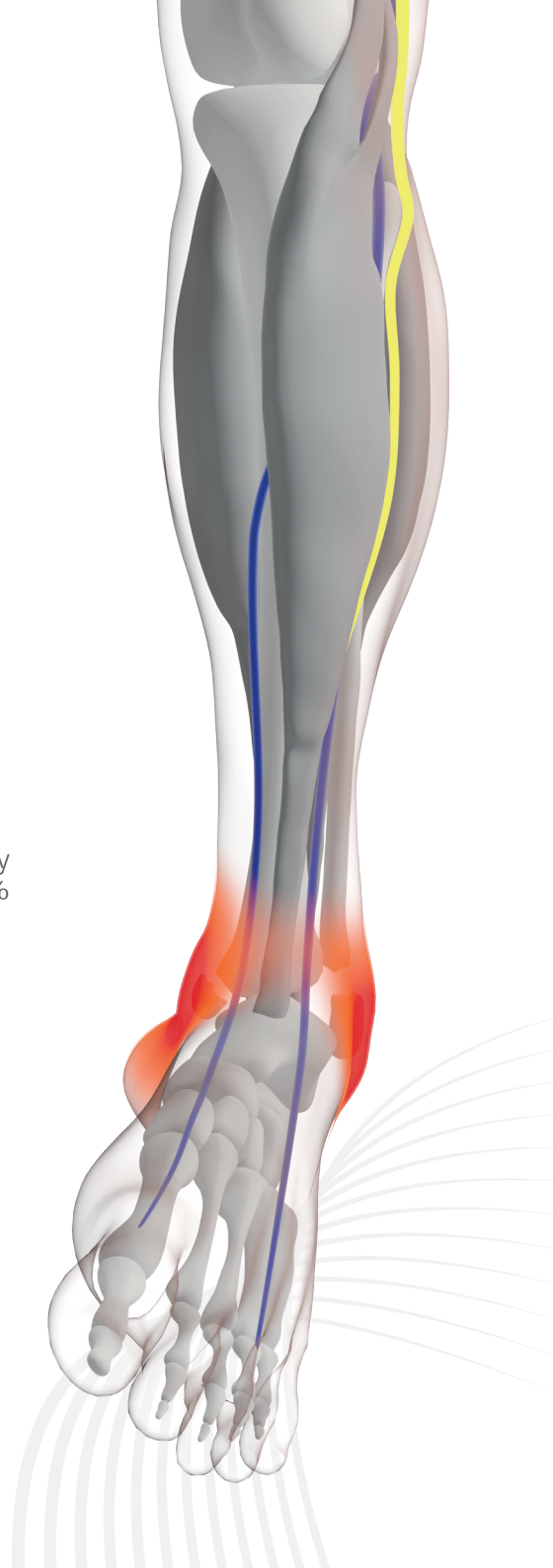
Pre-operative oedema reduction

Accelerating readiness for surgery in ankle fracture patients requiring Open Reduction Internal Fixation (ORIF).¹

A prospective and retrospective study investigated the use of the geko™ device to reduce pre-operative oedema in ankle fracture patients and compared the results to the current standards of care². The study data was statistically significant: $p=0.0016$. The geko™ device was well tolerated and easy to use.

Results show:

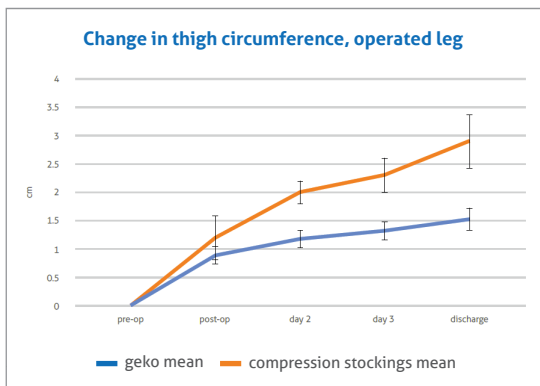
- 2 days improvement in readiness to surgery per patient (average)
- With geko™ use, 60% of patients ready for surgery in 2 days, compared to 27% in control arm, a 122% improvement
- Current treatment = 3.66 days readiness to surgery (average)
- The geko™ + plaster cast = 1.66 days readiness to surgery (average)
- The geko™ was well tolerated and easy to use
- Worn for 24 hours a day on the affected leg



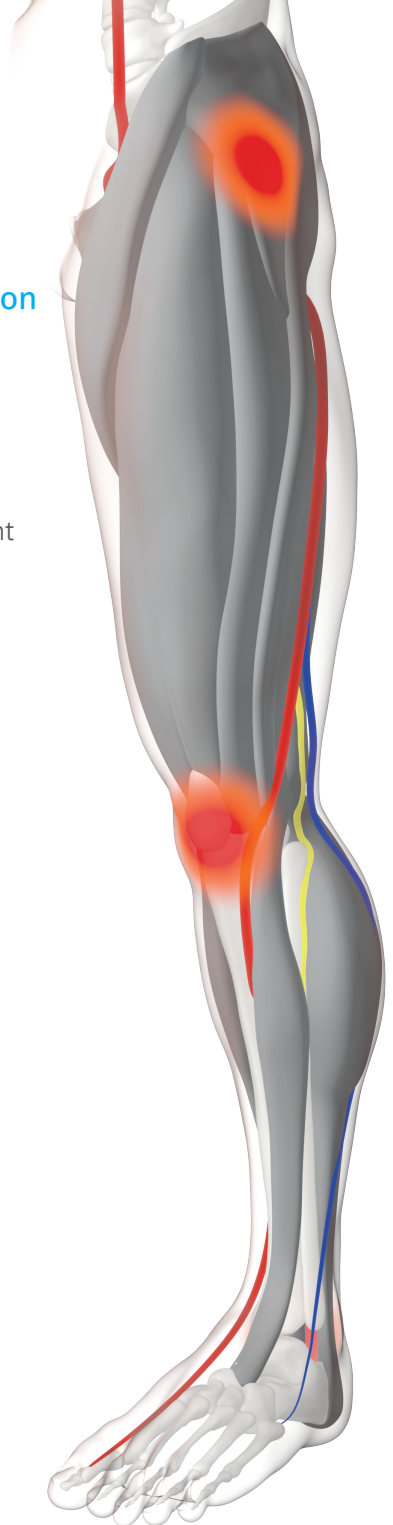
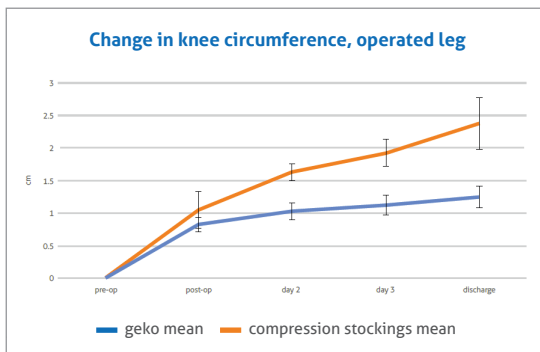
Post-operative oedema prevention – THA and TKA

Providing lower limb muscle pump activation to prevent the build-up of post-operative oedema following total or partial hip (THA) and knee arthroplasty (TKA).

An RCT comparing the effectiveness of the geko™ device to compression stockings in preventing the formation of oedema following total hip replacement surgery demonstrates the prevention of oedema build-up in operated leg³.



The same RCT measured change to knee circumference on the operated leg.



Post-operative oedema reduction – Foot & Ankle

Enhancing patient recovery following foot & ankle surgery. Case study: 40-year-old female right scarf lateral release akin osteotomy.⁴

The geko™ device was applied immediately post-surgery on day 2 for 22 hours, on day 3 for 24 hours and days 4-10 for 4 hours. The patient reported the geko™ device as well tolerated and the surgical wound healed with a lower level of bruising than expected.



Day 1 Post-operative (1 hour after surgery).



Day 4 The patient was partial weight bearing with a heel wedge shoe and walked with elbow crutches.



A new approach

Increasing blood flow to treat a range of acute medical conditions.

Easy-to-use, the geko™ is a battery powered, disposable neuromuscular electrostimulation device designed to increase blood flow in the deep veins of the leg.⁷

The geko™ device gently stimulates the common peroneal nerve contracting the calf and foot muscle pumps, increasing blood flow to a rate equal to 60%⁶ of walking, without a patient having to move.



60%

The increase in blood flow is equal to 60%⁶ of walking without a patient having to move.

Zero

No wires or leads.
Small, light and comfortable to wear.
Silent in operation.

10g

Weighs just 10g.
Quick and easy to fit.

References

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2. K. Kerchner et al. Lower extremity lymphedema: update: pathophysiology, diagnosis, and treatment guidelines. J. Am. Acad. Dermatol., 59 (2) (2008), pp. 324-331
3. Wainwright TW et al. A Feasibility Randomised Controlled Trial to Evaluate the Effectiveness of a Novel Neuromuscular Electro-stimulation Device in Preventing the Formation of Oedema Following Total Hip Replacement Surgery. Heliyon 18 Jul 2018- Volume 4, Issue 7.
4. Pillai, Case study: Using the geko™ device to prevent oedema and promote functional activity following foot surgery, case study 1, data on file, published online, 2019.
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6. Tucker A et al. Augmentation of Venous, Arterial and Microvascular Blood Supply in the Leg by Isometric Neuromuscular Stimulation via the Peroneal Nerve. Int J Angiol. 2010 Spring, 19(1): e31-e37.
7. A Nicolaidis, M Griffin. Measurement of blood flow in the deep veins of the lower limb using the geko™ device neuromuscular electro-stimulation device, Journal of International Angiology, August 2016-04

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