

# Strayer Release Procedure Protocol

Mr Pillai, Consultant Orthopaedic Surgeon, recommends the use of the geko™ device for DVT Prophylaxis where pharmacological prophylaxis is contraindicated due to the patient's severe needle phobia<sup>1</sup>.

## Clinical Presentation

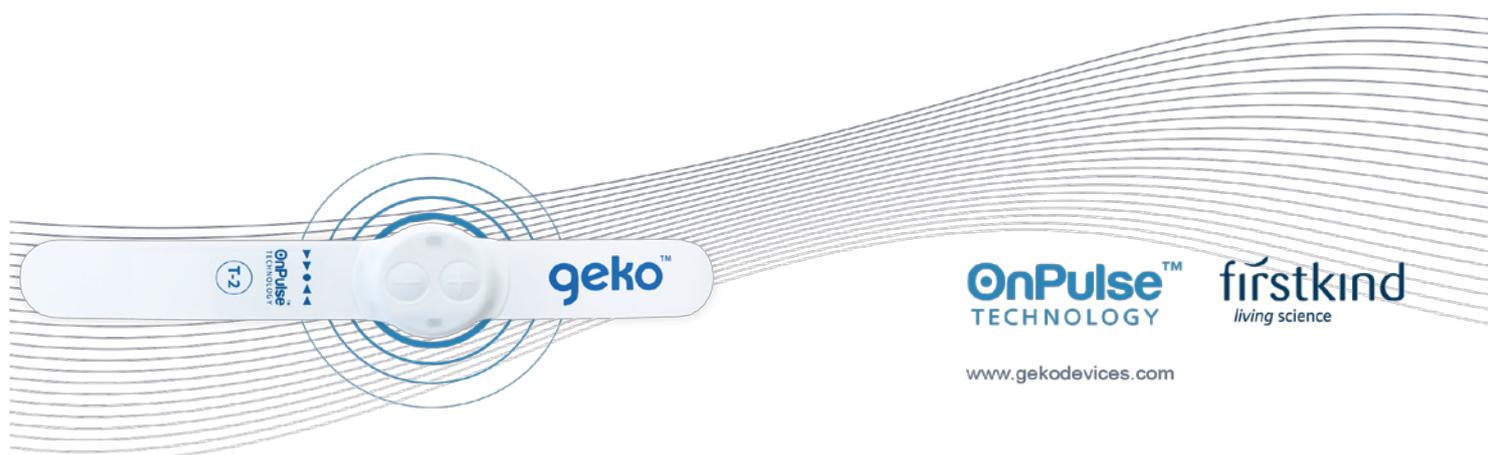
Gastrocnemius lengthening using the Strayer's technique is an effective surgical option for patients presenting symptoms such as, discomfort over the calf attachment of the gastrocnemius (behind the knee), tight hamstrings, knee extension difficulties and tightness of the gastrocnemius, demonstrating a positive Silfverskiöld test. The procedure carries a number of risks including:

- Infection
- Damage to sural nerve
- Numbness behind the leg
- Painful scar formation
- Chronic regional pain syndrome
- High risk of clot formation and clot embolism<sup>2</sup>

In my experience, the use of the geko™ device post - operatively reduces swelling significantly, improves wound healing, reduces wound infection, in many cases reduces post-operative pain and more importantly protects against the formation of a clot.

## Strayer Release Procedure

After surgery, the leg is placed in a neutral position and a below the knee light weight cast is applied from day 1 for 4 weeks. The geko™ device is applied immediately post-surgery to the operated leg. Following the manufacturers IFU, I look for a minor visible movement of the muscles in the lower leg, moving the foot slightly outwards and upwards. The Ward staff monitor the devices every 2 hours and changed the geko™ devices every 24 hours until discharge.



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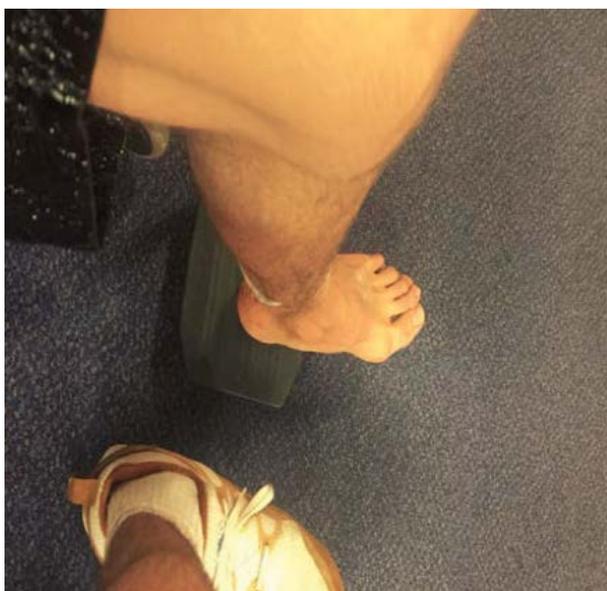
When the patient is ready to go home, they are trained to self-apply the geko™ and are provided with sufficient devices for up to 4 weeks stimulation, and a protocol reducing wear time to just 12 hours a day towards the end of their treatment. In my experience the patients have been happy to self-apply in the home environment and have reported positive feedback during its use.

## Clinical Outcomes

Patient observations since using the geko™ device:

- Prevention of oedema formation
- Reduction in post-operative pain reported during use
- Wound closure

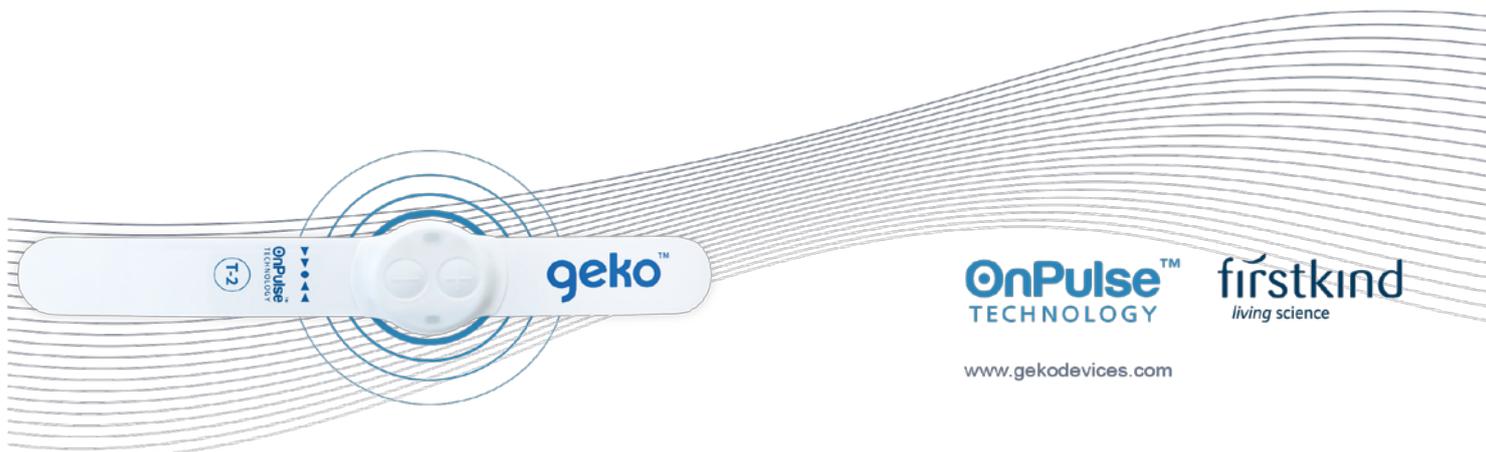
## Images from the patient Case Study<sup>3</sup>



**Picture 1 - Day 7-** shows operated leg



**Picture 2-** shows geko™ device being used for DVT prophylaxis



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## Clinical Endorsement

The geko™ device is the most suitable form of prophylaxis following surgery for patients suffering from severe needle phobia. The geko™ device is a simple and easy to use, non-invasive adhesive strap. I use the device to offer my patients the latest innovation for the prevention of VTE and oedema formation following Strayer release of the gastrocnemius, to enhance wound healing, and ensure overall compliance and enhanced patient recovery.

## Case study references

1. NICE medical technologies guidance (MTG19). Published date: June 20 2014.
2. <http://www.oamkg.com/patient-education/gastrocnemius-slide-surgery.html>
3. Pillai, using the geko™ device to prevent dvt and oedema and promote functional activity following Strayer release of the gastrocnemius, case study on file, Firstkind Limited, 2013.

The authors have no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

