

# Two Cases of Transcutaneous Electrical Nerve Stimulation of the Common Peroneal Nerve Successfully Treating Refractory, Multifactorial Leg Edema

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## Abstract

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The treatment of leg edema often involves promoting venous blood flow but can be difficult in patients with comorbidities that prevent traditional management strategies such as limb elevation or mechanical compression devices. The geko device is a self-contained neuromuscular stimulation device that adheres to skin over the common peroneal nerve and delivers a low-voltage stimulus that activates the lower-leg musculature resulting in enhanced superficial femoral vein blood flow and velocity. Here we report 2 cases of multifactorial and refractory leg edema successfully treated with the geko device over a period of 4 to 16 weeks. The device also improved pain and chronic wound healing. Although the geko device is costly, it was well tolerated and may provide another treatment strategy for resistant leg swelling.