

White Paper

September 1, 2015
Mr. Keith Ware
Osborn Medical
7022 S Revere Parkway, Suite 240
Centennial, CO 80112

Dear Keith,

It was a pleasure to work with you on our pilot project regarding changes in blood flow in people who had diabetes and a chronic, non-healing neuropathic ulcers. Below are the results of flow in the popliteal artery, posterior Tibial artery and cutaneous vessels surrounding the ulcer. Duplex Doppler and Laser Doppler Flow Meter (LDFM) were used to measure the blood flow. Measurements were taken Pre and Post Boot (Rooke boot was on for 1-hour). Below are the results of 6 patients.

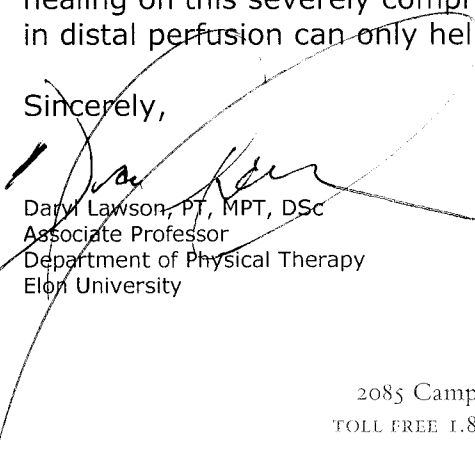
Patient 1	Pre Boot	Post Rooke Boot	Patient 4	Pre Boot	Post Rooke Boot
Popliteal	56 ML/min	94 ML/min	Popliteal	10 ML/min	63 ML/min
Post Tibial	17 ML/min	34 ML/min	Post Tibial	3.8 ML/min	6 ML/min
LDFM	91	184	LDFM	32	80
Patient 2	Pre Boot	Post Rooke Boot	Patient 5	Pre Boot	Post Rooke Boot
Popliteal	49 ML/min	87 ML/min	Popliteal	54 ML/min	87 ML/min
Post Tibial	5 ML/min	21 ML/min	Post Tibial	6 ML/min	21 ML/min
LDFM	79	119	LDFM	40	61
Patient 3	Pre Boot	Post Rooke Boot	Patient 6	Pre Boot	Post Rooke Boot
Popliteal	28 ML/min	101 ML/min	Popliteal	61 ML/min	140 ML/min
Post Tibial	16 ML/min	13 ML/min	Post Tibial	8 ML/min	25 ML/min
LDFM	27	101	LDFM	47	122

This data further reinforces the original work from Mayo Clinic that indicated wearing Rooke Boots on ischemic limbs gives a 5.3 ml/Hg increase in TcPO₂'s.

Changes in temperature measured at the dorsum and plantar surface of the foot post Boot ranged from an increase of 0.5C all the way up to a 3.6C increase in temperature supporting **Poiseuille's Law** that natural warmth creates a vasodilatory cascade for enhanced distal perfusion.

These results warrant further research on how Rooke Boots can augment wound healing on this severely compromised patient population. But the striking increases in distal perfusion can only help wound healing.

Sincerely,



Daryl Lawson, PT, MPT, DSc
Associate Professor
Department of Physical Therapy
Elon University