

ELON UNIVERSITY RESEARCH STUDY

CHANGES IN DISTAL PERFUSION WITH THE USE OF ROOKE BOOTS

SUMMARY

Elon University did a pilot project regarding changes in blood flow in people who had diabetes and chronic, non-healing neuropathic ulcers.

APPROACH

The flow in the popliteal artery, posterior Tibial artery and cutaneous vessels surrounding the ulcer was measured on six patients. Duplex Doppler and Laser Doppler Flow Meter (LDFM) were used to measure the blood flow and measurements were taken pre- and post-boot use.

OUTCOMES



Out of all patients, the popliteal and the LDFM had a **50% or greater increase** in their blood flow at the dorsum of the foot.

Changes in temperature measured at the dorsum and plantar surface of the foot post-Boot saw an **increase from .5C up to 3.6C**, supporting **Poiseuille's Law**.



[Read full letter here.](#)

"The data further reinforces the original work from the Mayo Clinic that indicated wearing Rooke Boots on ischemic limbs give a 5.3 mm/Hg increase in TCPO₂."

- Daryl Lawson, PT, MPT, Dsc, Associate Professor, Department of Physical Therapy