

Clinical Manifestations of Friction and Shear
Related Skin Breakdown.

Resolution of Oedema and Inflammation
Measured by Ultrasound on Heels Treated
with Low Friction Fabric Bootees

Cathie Bree-Aslan

Clinical Manifestations of Friction-Related Damage



Why Bother about Friction?



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**What are we trying to
achieve?**

Comfort

Maintaining skin integrity

Prevention of harm

How do we achieve it?

Ensuring good positioning

Careful repositioning

Specialist friction-reducing equipment



Positioning and Repositioning

Bringing the knee break up first on the bed

Using slide sheets to aid repositioning

Correct/appropriate seating

**Ensuring patient is comfortable before
walking away**

**Checking back regularly
(Comfort Rounds/SKIN Bundles)**

Know Your Patient

**Conditions that might increase risk of
friction-related damage**

e.g.

**Neurological Disorders (Parkinson's
Disease/tremors)**

Brain Injuries (increased agitation)

Dementia (repetitive movements)

Spinal Injured (e.g. transfer techniques)

Mobile patients??

Know Your Patient

**The patient that is able to push
themselves up in the bed
is at great risk of friction
and related shear injury**

**Check their skin regularly
(sacral area, elbows, heels)**

Why Bother about Friction?

EPUAP – NPUAP Guidelines (2014)

Recommend we consider the potential impact of contributory factors in pressure ulcer etiology including Friction

Consider using silk-like fabrics rather than cotton or cotton-blend fabrics to reduce shear and friction

Parafricta low friction fabric

**Designed to reduce friction and shear stress
associated with movement**

Has a low friction co-efficient = 0.2
(compared with other textiles = typical range 0.3 - 0.7)

Reduced “Stiction”

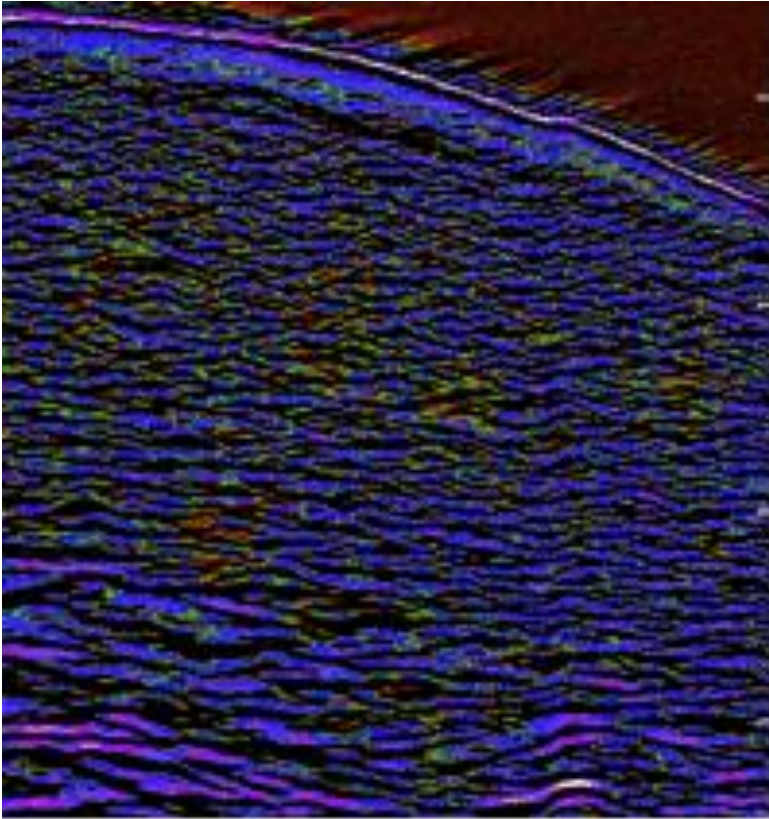
**(additional force needed to overcome
skin sticking to surface before sliding)**

Results with Parafricta bootees

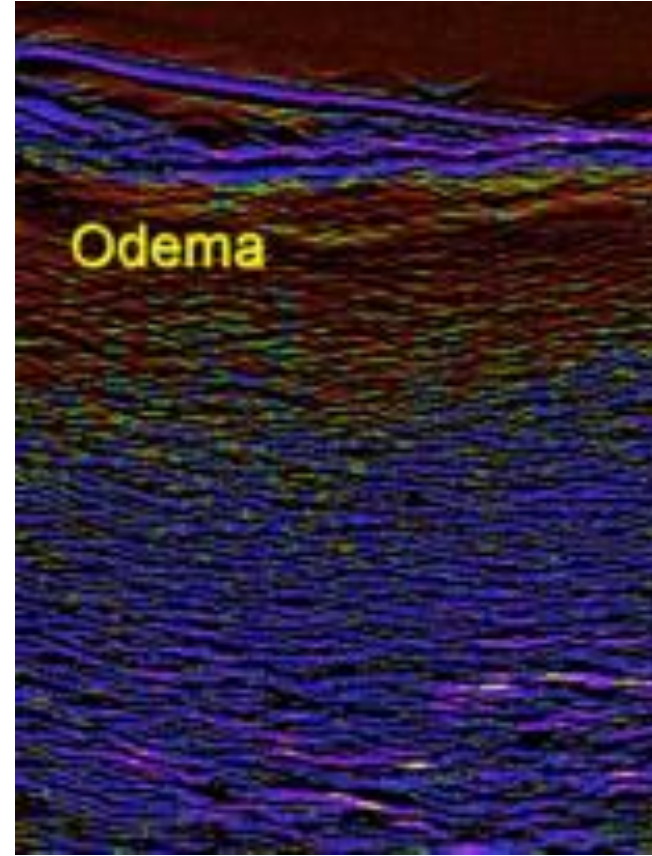


Patient as their own “control”

High Frequency Ultrasound Scanning

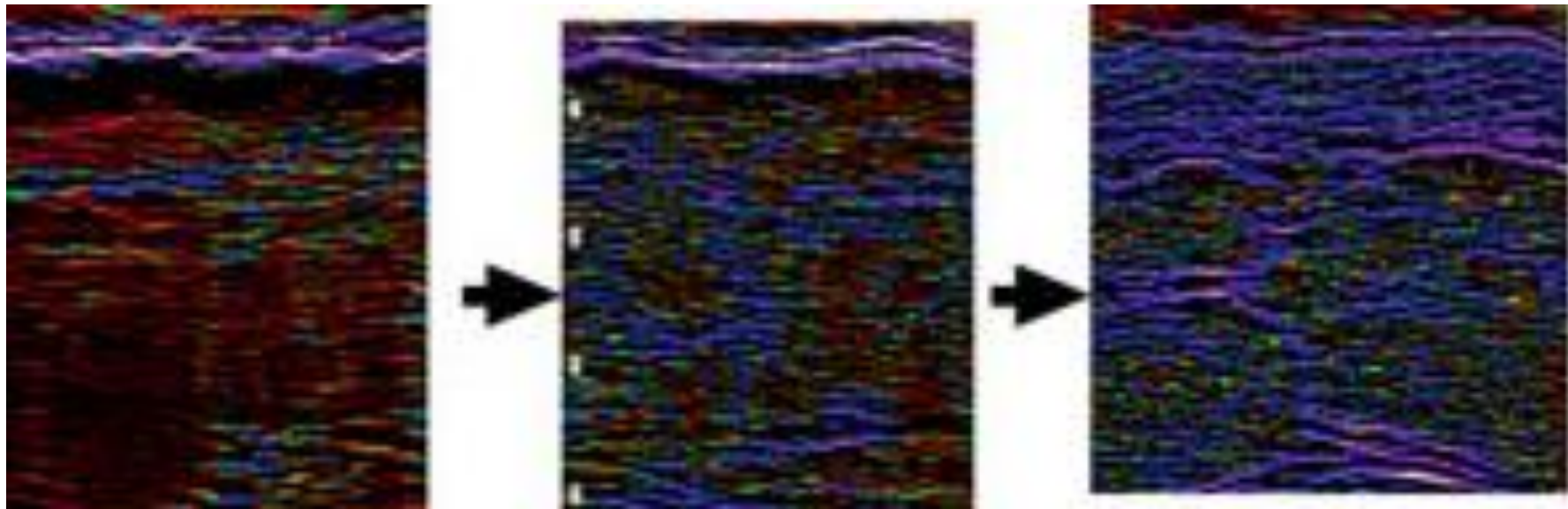


Normal skin



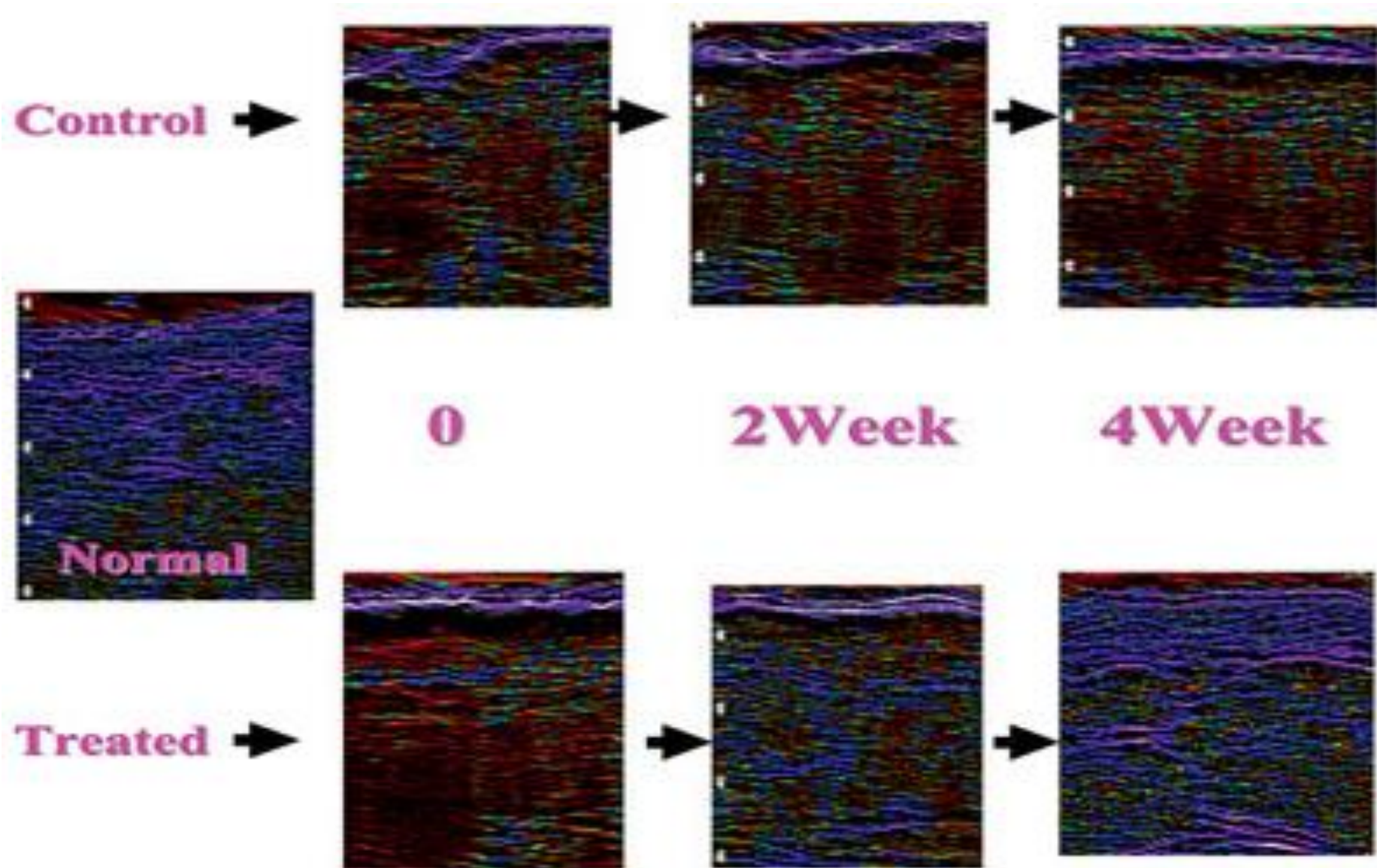
Sub-dermal oedema

High Frequency Ultrasound Scanning

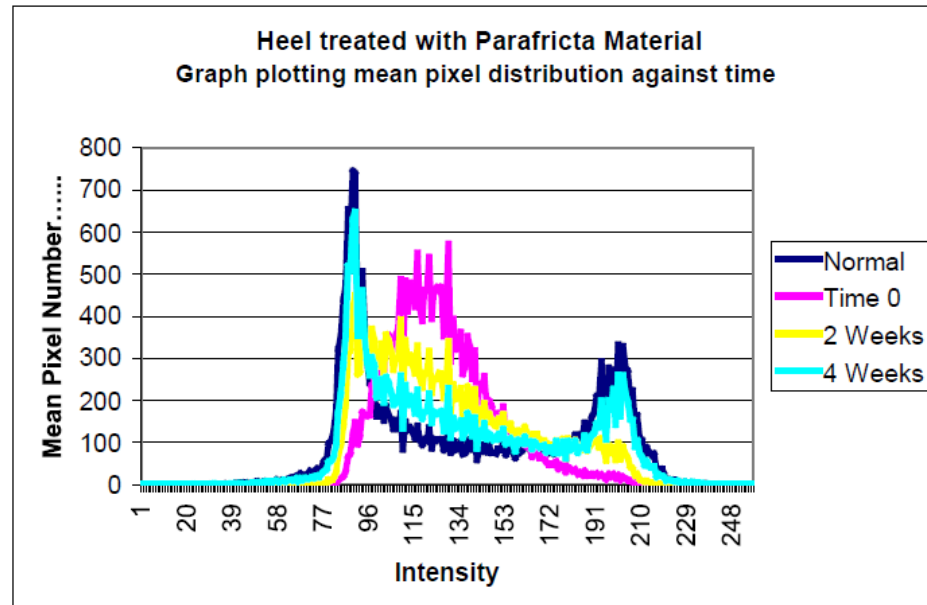
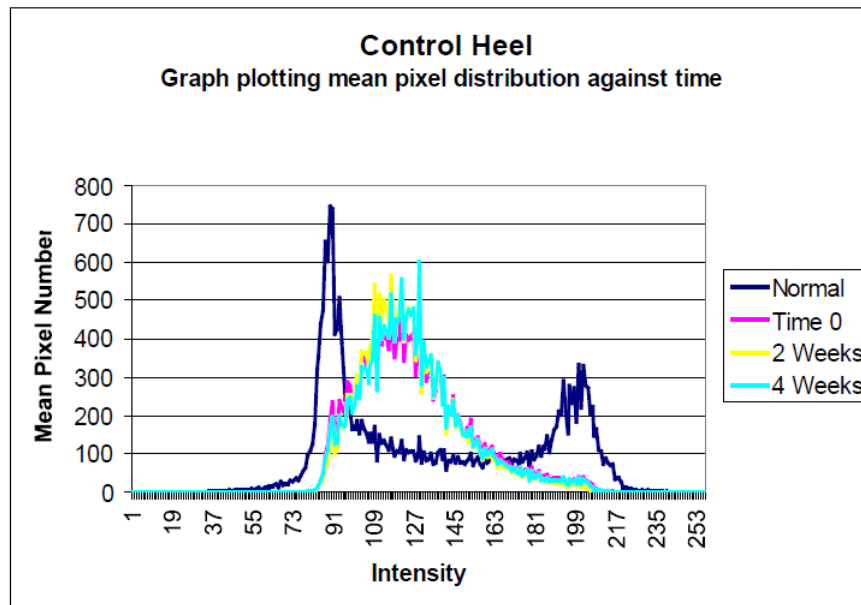


High Frequency Ultrasound scans before and
after using Parafricta bootee

High Frequency Ultrasound Scanning



High Frequency Ultrasound Scanning



Hampton, S et al, "Parafricta material, can it reduce the potential for pressure damage?" Journal of Community Nursing 23(4) (2009) 28-31

Oedema and Redness

SUMMARY:

**Can be reversed by low friction fabric
bootees**

**Leaving tissues less vulnerable to effects
of shearing**

**Reducing risk of progression to open
ulceration**

Managing Friction

**Should be part of a pressure ulcer/friction
lesion prevention strategy**

Can be avoided by:

Good positioning

Careful repositioning

Specialist equipment

Thank you!



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