

Healing Heel Ulcers: the less is more approach to casting

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Neuroischaemic heel ulcers in people with diabetes may have devastating consequences, potentially resulting in loss of limb, increased morbidity (including severe pain) and mortality. This type of ulceration is notoriously difficult to heal and represents major burdens on health service resources. Traditionally clinicians have avoided casting ischaemic feet for fear of creating new problems. We report 15 cases for whom a pioneering, lightweight total contact device was successfully used to offload pressure and promote healing in both hospital and community acquired neuroischaemic diabetic heel ulcers.

Our technique utilises one 3 inch Soft Cast (3M) bandage which is applied concentrically around the ankle and heel providing firm protection around the ulcer and vulnerable areas whilst allowing flexibility and comfort elsewhere. The outer perimeter of the cast is one layer thick and remains soft and accommodating whilst cast rigidity is focused on the ulcerated area. It is crucial that the cast is worn constantly whether in bed, chair or in a dressing sandal when weight bearing. Such a design allows the cast to be applied to ischaemic fragile areas regardless of the level of ischaemia.

Out of 15 patients with hospital or community acquired heel ulcers, (4F/11M, aged between 53 and 83 years, all with an ankle brachial pressure of $<.8$), 10 have successfully healed; the remaining 5 showing a marked improvement in heel ulcer status since initial cast application. Heel casts are easily applied at the chair or bedside in primary and secondary care, on hospital wards and in the community. Minimal equipment is required. The cast presents an adaptable, inexpensive ($<€10$), lightweight and highly patient friendly method of offloading ischaemic heel pressure and promoting healing. This technique has revolutionised our heel ulcer management.