

# Use of a unique Carbon based textile dressing Zorflex® to promote healing and prevent amputation

## A case series

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### Problem Statement

As chronic wounds are treated and re-enter the active healing phase, increased inflammation associated with increased drainage can occur. Depending on a myriad of factors, the associated wound odour can create significant issues regarding social acceptability and concerns over infection.

### Case Presentations/Results

**CASE 1** - A 55 year-old male with Type I Diabetes Mellitus and polyneuropathy presented with a large plantar ulcer. Poor hygiene, hyperhidrosis and copious wound drainage produced a noxious odour which precluded him from any social interaction. Prior treatments included only topical dressing with no offloading.



CASE 1

Treatment commenced using Total Contact Casting and Zorflex® to the ulcer changed weekly. Excellent odour control was achieved as his healing progressed.

**CASE 2** - A 48 year-old male with Type 2 Diabetes Mellitus and neuropathy presented at the strong recommendation of his primary care doctor the day before a scheduled below-knee amputation. Significant wound odour and lack of healing had led his podiatrist to recommend amputation despite no offloading, dry gauze dressings and multiple courses of antibiotics.



CASE 2

Treatment commenced using Total Contact Casting and Zorflex® changed weekly. Excellent odour control was achieved as healing progressed and the planned amputation was avoided.

**CASE 3** - A 77 year-old male with a 3 year history of Chronic Venous Hypertension, and multiple non-healing ulcers presented looking for a second opinion regarding copious drainage and a noxious odour from the wounds. Prior treatments included multiple course of antibiotics, gauze wraps and tubular compression with no improvement.



CASE 3

He was started on 4 layer compression (Comprifore® - BSN) and Zorflex® applied to his wounds changed twice a week initially. Excellent odour control was achieved as his healing progressed.

### Conclusion

Zorflex® activated carbon cloth adsorbs a large volume of organic or inorganic molecules from various gases and liquids and acts as a high purity filter. The microporous structure and strong electrostatic Van der Waals forces within the cloth results in bacteria being drawn to the cloth and destroyed. Odour molecules are drawn into the cloth and inactivated. Zorflex®, unlike granular activated carbons, is also suitable for use in applications where there is increased moisture as its adsorption capacity is less adversely affected by moisture. The effect of Zorflex® on wound bacteria contributes to improved healing through the inactivation of bacteria present as well as reducing associated wound odour.