

# Patient Comfort and Ease of Use of a New Two-layer Compression System for Venous Leg Ulcers: A Multi-centre Case Study Analysis.

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## Introduction

Venous leg ulcers are chronic wounds with high reoccurrence rates<sup>1</sup>. Besides the physical limitations, a leg ulcer also causes psychological and quality of life issues, such as pain, the inability to walk freely and problems in finding shoes that fit<sup>2</sup>. The quality of life issues often do not get enough attention<sup>3</sup> and lead to high costs<sup>4</sup>. Compression therapy is considered the most effective treatment for venous leg ulcers<sup>5</sup>. A generally accepted conclusion is that a higher pressure is more effective for ulcer healing than a lower pressure<sup>6,7,8,9</sup>. Recently a new compression system, 3M™ Coban™ 2 Layer Compression System (hereafter Coban 2 Layer) was introduced in the Netherlands. The aim of this study was to assess whether Coban 2 Layer offers advantages in terms of patients comfort and ease of use.

## Methods

A multi-centre study was conducted with 32 patients suffering from venous leg ulcers and an ABPI >0.8. All patients included had previously experienced other types of compression systems. For a six week period, patients were assessed weekly. At each visit their leg ulcers were photographed and measured to record wound healing rate. Circumference of the ankle and calf were measured to record oedema reduction. The bandage height from floor to the top of the bandage was measured and recorded at arrival before bandage change and after application of a new bandage, to assess slippage. The patients' experiences of Coban 2 Layer were recorded after the six week period.

## Results

Coban 2 Layer was found to be very comfortable by the majority of the patients, compared to other bandage systems, like Short Stretch and Multilayer Systems. Shoe fitment and improved mobility was seen in 60% of the cases. As a result of this, an improved adherence level could be observed. Clinicians found the Coban 2 Layer easier to apply than other bandage systems in 45.5% of cases. In 44.8% of cases they found it as easy to apply as other bandage systems. The bandages had stayed in place for one week in 85% of cases. In addition, a high level of patient concordance, with over 90% of patients leaving their bandages in place, as well as a fast oedema reduction was observed.

## Conclusion

Compared to other compression bandages, such as Short Stretch and Multilayer systems, the Coban 2 Layer application technique was easy to learn and faster to apply. Compared to previously used systems, patients reported a high level of comfort and reduced pain. It was easier to wear own shoes and the ability to walk was improved. The case studies showed a high patient concordance as a result of this.

## Case study 1

- Mrs. L, aged 83, suffering from severe arthritis
- Ulcer duration: 6 months
- Previous compression therapy: Zinc bandages
- Ulcer is infected and sloughy
- Wound size: 3 cm long x 0.8 cm wide
- Ankle circumference 19 cm and calf circumference 23 cm



day 1



day 7: before removal



day 49: wound is closed

## Patient's perspective

- Very comfortable
- Much easier to walk
- Mrs. L. did not want to stop using Coban™ 2 Layer
- Complete healing after 7 weeks
- Ankle circumference 18 cm and calf circumference 20 cm

## Case study 2

- Mrs. B, aged 79, an active lady
- Ulcer duration: 6 weeks
- Previous compression therapy: Short Stretch
- Ulcer contains slough
- Skin is macerated: combination of eczema and wound fluid
- Local treatment: combination of hydrocortisone and Zinc
- Wound size: 13 cm long x 7 cm wide
- Ankle circumference 24 cm and calf circumference 40 cm



day 1



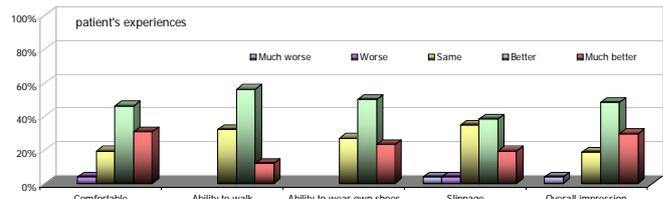
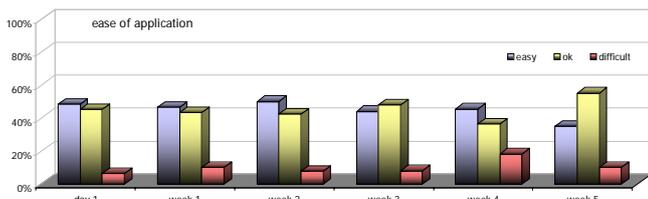
day 18: after 7 day wear



day 49

## Patient's perspective

- Easier to walk with
- Very comfortable
- No slippage of bandage
- Wound size after 7 weeks 1.5 cm long x 2 cm wide
- Ankle circumference 22.5 cm and calf circumference 31 cm



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