

## **Venous Leg Ulcer**

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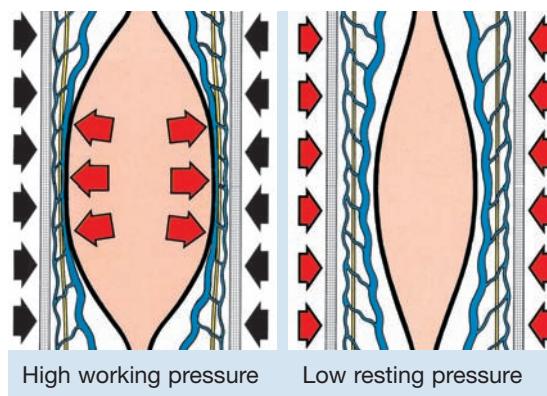
## Introduction

The etiology of venous leg ulcers is venous hypertension secondary to an insufficiency of the leg veins or more precisely of the valves of these veins. The leg veins are divided into the superficial veins, the deep veins and their communicating veins. The insufficiency of the valves can be in any of these. The therapy of venous leg ulcers includes treating the etiology, i.e. the venous insufficiency by compression of the lower legs, treatment of the wound with the appropriate type of dressings and any complicating factors such as infections.

## Therapy Elements

### 1) Continuous Compression

Short stretch bandages or compression stockings help to restore venous flow and prevent venous reflux.



- ▶ If oedema is present:  
Adequate compression may include short stretch bandages in the initial phase as long as an oedema is present.
- ▶ If no oedema is present:  
Once the oedema is almost reduced, compression stockings are recommended as an effective and convenient solution.

## History and findings on admission

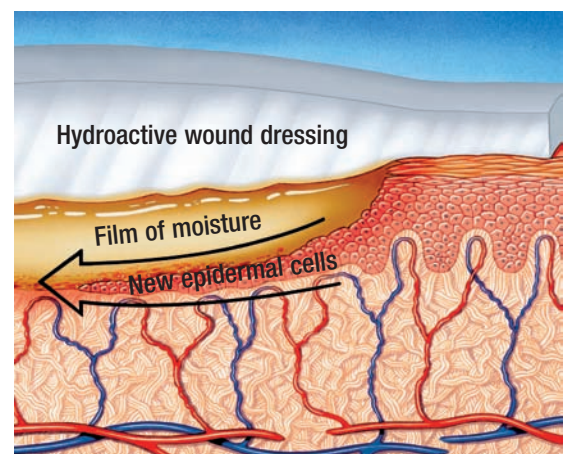
A 75 year old woman living in a fishing community a 3 hr drive from the university clinic. Early in her life operated for superficial venous insufficiency leaving a linear scar on the medial aspect of the lower leg. A more frequent cause of such a scar today is the harvesting of a venous graft for a coronary bypass operation.

## Diagnosis

A minor trauma to the medial aspect of the lower leg led to the formation of a black eschar.

### 2) Advanced wound care

The moist wound environment ensures best possible healing conditions.



## Treatment



### Day 1 after debridement

The wound after the debridement of the necrosis. Note that the operation scar has broken down and a linear ulcer formed above the original one.

The wound was treated with an atraumatic superabsorbent silicone dressing, Cutimed® Siltec. The venous insufficiency was treated with Comprilan® short stretch compression bandages.



### Day 29

The ulcer is partially on its way to autodebridement that seems to be facilitated by the dressing. Additional necrotic tissue was removed by scalpel and forceps. Note the exuberant granulations in the bottom of the wound. The treatment with Cutimed® Siltec dressings and short stretch bandages was continued.



### Day 62

The granulation tissue has filled the ulcer, and where it reaches the wound margins, epidermal cells are covering the wound as can be seen on a closeup photograph. At this stage the atraumatic properties of the dressing are of utmost importance, allowing the fragile epidermal cells to migrate onto the granulation tissue to ultimately cover them.

A less atraumatic dressing might stick to the superficial layers of the ulcer and strip the epidermal cells off, delaying the healing of the ulcer. A less absorbing dressing might allow the presence of excessive exudate in the wound that might be detrimental to the healing process as well as to the surrounding skin (risk of maceration).



### Day 106

The Photo shows an almost healed wound. In a few places the necroses are not fully detached. Wound contraction, an extremely important part of wound healing, is developing nicely. Not to risk this fine course, treatment with Cutimed® Siltec and compression is continued. At this stage a compression stocking was fitted.

Generally, when the leg has been treated with compression bandages and most of the edema is removed, a compression stocking can be fitted. The ulcer dressings must, however, not be too bulky, must be firmly fixed to the skin and there must be no leakage of exudate.



### Day 176

The wound is healed and the scar is fully contracted. After this the scar will be remodelled and get thinner and more flexible. When the photo was taken the patient was using compression hoisery to prevent recurrences and was determined to do so in the future.

**Summary**

The photos and text describe a fairly typical venous leg ulcer that is healed by conservative treatment including adequate compression and the use of an atraumatic superabsorbent wound dressing. In our

opinion there is no doubt that the dressing played a major part in the „un-eventful“ healing of this ulcer. It is also interesting to see the significance of wound contraction on the wound healing process.

**Author**

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