

# ABSTRACT: PATIENT COMPRESSION COMPLIANCE: Winning the Battle

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**Table of content statement:** In patients with incompetent great saphenous veins, pelvic veins, accessory veins, refluxing perforators and venous malformations, and leg ulcers, CVI is often associated with **debilitating** symptoms and complications.

- Chronic venous disease (CVD) and (CVI) Chronic Venous Insufficiency is a **major public health issue** carrying a high prevalence.
- Despite this, CVD and CVI are largely under-diagnosed and limited choices of efficient, effective, cost effective care is being provided to patients.

**Anatomic/physiologic consideration:** CEAP CLASS, OVERALL HEALTH



- Improve venous return from the lower extremities with venous stasis
- Counter effects of ambulatory venous hypertension
- Help control the progression of venous and lymphatic disease by increased contact of skin and dermal tissues with capillaries

**General considerations for winning the battle of patient compliance with**

**compression:** Learn about compression. Compression Vendors, National and International Conferences; Use compression yourself; Research Trials with research grants; Smart fabrics, patient monitoring and pressure monitors: embedded and external use.

**Methods: Educate and Explain Clear benefit for compression therapy:**

- a) Heal or prevent "Active venous ulceration"
- b) Prevention of PTS after DVT

- c) Prevention of TE events after surgery when combined with anti- coagulant prophylaxis
- d) Reduction of edema and inflammation
- e) Better cosmetic outcome

## Technical Tips:

- There are many fabrics, styles and colors available, both in ready-to-wear and custom-measured garments.
- Two facts become clear at once: **Nothing “fits like skin,” and NO one fabric, style, brand, or type of compression is perfect for every patient**



**What did we learn after bandaging, velcro inelastic wraps, flat knit compression, elastic stocking compression?** “Adjustable **Velcro Compression Devices are More Effective than Inelastic Bandages in Reducing Venous Edema in the Initial Treatment Phase: A Randomized Controlled Trial** G. Mosti a,\*, A.Cavezzi b, H.Partschc, S.Urso d, F.Campana eEur J Vasc Endovasc Surg (2015) ,1e7 **Conclusion: Re-adjustable AVCDs with a resting pressure of around 40 mmHg are more effective in reducing chronic venous edema than IBs with a resting pressure of around 60 mmHg. AVCDs are effective and well**

tolerated, not only during maintenance therapy, and also in the initial decongestive treatment phase of patients with venous leg edema.



**What were the venous reflux or leg ulcer recurrences?**

**GRADE 1B: Strong compression hosiery (30-40 mmHg) is more effective than medium or low compression stockings**

**Grade 1A: 30-40 mmHg compression hosiery prevents recurrence of ulceration after healing**

**“Since long-term patient concordance with compression is relatively poor, it may prove more popular, effective and cost-effective to provide a single intervention to reduce recurrence, rather than life-long treatment with compression.” Samuel N, Carradice D, Wallace T, Smith GE, Chetter IC. Cochrane Database of Systematic Reviews 2013, Issue 10. Art. No.: CD009494. DOI:10.1002/14651858.CD009494.pub2. (Hull – UK)**

**What are the problems and modes of treatment?** Well-performed compression techniques don't guarantee technical success. More commonly, however, recurrent varicose veins can be from non-saphenous sources such as pelvic insufficiency, saphenous tributary incompetence, previously unknown abdominal or pelvic obstruction, patient non-compliance or simple disease progression.

**“WHATEVER THE CAUSE, IT IS IMPORTANT TO BEAR IN MIND THAT CONTROL OF LOWER EXTREMITY VENOUS INCOMPETENCE CAN BE ACHIEVED, BUT PERMANENT CURE IS AN UNREALISTIC GOAL. HUGO PARTSCH**

**Results:** No significant, procedure related, adverse events occurred using donning and doffing methods mentioned, nor from the use of Velcro devices, circular or round knit stockings, and 4-layer bandaging with inelastic wraps and layered padding options.

**The battle can be won if compression reduces patient complaints of cramping, restless legs, ankle or leg swelling, heaviness, inflammation, pain, or recurrent leg ulcers and DVT.**

**“Compression is not a punishment, if done correctly, with the patient’s involvement and cooperation.”**

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Adjustable Velcro Compression Devices are More Effective than Inelastic Bandages in Reducing Venous Edema in the Initial Treatment Phase: A Randomized Controlled Trial G. Mosti a,\* , A. Cavezzi b, H. Partsch c, S. Urso d, F. Campana e Eur J Vasc Endovasc Surg (2015) ,1e7