

# Compression Therapy in Veno-Lymphatic Disorders



## BACKGROUND

### PREVALENCE OF VENO-LYMPHATIC DISORDERS

#### Venous disorders<sup>1</sup>:

- C1** (spider & reticular veins): 59.1%
- C2** (varicose veins): 14.3%
- C3** (chronic leg edema): 13.4%
- C4–C6** (skin changes, healed/open ulcer): 3.6%

#### Lymphatic disorders<sup>2</sup>:

- Lymphedema:** 1.8% (2% women; 1.5% men)
- Primary lymphedema:**  
1/3 of all lymphedema patients
- Secondary lymphedema:**  
2/3 of all lymphedema patients

#### Lipedema<sup>3</sup>:

Predominantly in women: 6–8%

### MANAGEMENT

#### The management of veno-lymphatic disorders is multi-factorial & includes:

- **Compression therapy,** a well-established treatment for veno-lymphatic conditions<sup>4</sup>
- Skin care
- Surgical techniques & other therapies
- Exercise / weight management
- Lymphatic drainage

This One-Pager focuses on **compression therapy mechanisms, benefits and types, and on how to choose the best garment** for an individual patient.

### COMPRESSION THERAPY

#### Mechanisms of action<sup>5</sup>:

- Improves venous return
- Decreases filtration
- Enhances lymph formation & lymphatic flow
- Reduces inflammation<sup>6</sup>

#### Beneficial effects<sup>5</sup>:

- Reduces signs & symptoms
- Reduces & prevents edema
- Accelerates wound healing
- Improves & prevents skin conditions
- Reduces mechanical impairment & pain
- Increases physical activity & tissue stabilization; enhances quality of life



## COMPRESSION THERAPY TYPES<sup>4,7</sup>

### CIRCULAR KNIT

#### CHARACTERISTICS

- Fine, discrete stockings; softer, more elastic & esthetic than flat knit; no seam
- Long-stretch properties; lower working pressure\* than flat knit
- Availability of made-to-measure garments
- Lower costs than flat knit or compression wraps



#### USAGE

- CVI (C0–C6; examples: heavy legs, varicose veins, early/mild edema; venous leg ulcers with the Ulcer X kit)
- Mild to moderate lymphedema, lipedema or lipolymphedema, if limb has a uniform shape; can be used for the decongestive, transition or maintenance phase

### FLAT KNIT

#### CHARACTERISTICS

- Thicker & stiffer materials compared to circular knit; highly resistant; with seam
- Short-stretch properties; higher working pressure\* than circular knit
- Flexible & versatile (custom-made)
- Comfortable with soft tissue or skin folds; comfortable at high compression classes



#### USAGE

- Moderate CVI (C3–C4)
- Mild to severe lymphedema, lipedema, lipolymphedema, with or without shape distortion (tissue containment); maintenance phase (can be used for the decongestive & transition phase); recommended after bandaging to prevent rebound

### COMPRESSION WRAPS

#### CHARACTERISTICS

- Allow self-management (self-application & -adjustment, self-hygiene & skin care); enhanced treatment efficacy & enhanced quality of life; cost-effective (washable, re-usable; time-saving); comfortable thanks to self-adjustment
- Short-stretch properties; high working pressure\* & low resting pressure\*



#### USAGE

- Moderate/severe CVI (C3–C6)
- Mild/moderate to severe lymphedema, lipedema or lipolymphedema, with or without shape distortion; maintenance phase (can be used for the decongestive & transition phase); also used to prevent rebound

Please turn for more information on compression therapy and for advice on how to choose the right garment.

# Adjustable Compression Wraps: Applications & Benefits



## WHAT ARE WRAPS?

Adjustable compression devices with inelastic properties.

## WHEN ARE THEY USED?

For the management of lymphedema, chronic venous insufficiency and lipedema.

## WHAT MAKES THEM SO SPECIAL?

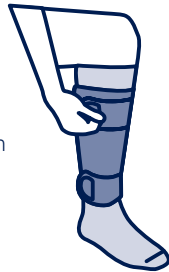
The combination of **material attributes** (high working pressure, low resting pressure) and **design properties** (self-adjustability) offers many benefits over conventional bandages:



## BENEFIT 1: SELF-MANAGEMENT

### SELF-APPLICATION

- Easy & quick self-application by patient or caregiver
- Ideal for patients with limited access to care centers



### SELF-ADJUSTMENT

- Patient can tighten wraps when they loosen due to edema reduction
- Possibility to loosen in case of discomfort
- Better pressure maintenance over time



### SELF-HYGIENE & SKIN CARE

- Wrap & liner can be easily removed & washed if needed
- Hygiene & skin care can be performed at home & more regularly



## BENEFIT 2: ENHANCED TREATMENT EFFICACY (UPPER & LOWER LIMBS)

### LYMPHEDEMA

- Effective edema reduction & maintenance
- Maintenance of appropriate compression level
- Reduced pain & heaviness
- Increased mobility
- Improved skin integrity
- Improved leg shape
- Greater limb volume reduction compared to bandages despite same initial pressure

### VENOUS LEG EDEMA & ULCERS

- Improved venous return (high static stiffness index)
- Effective edema reduction
- Reduced pain
- Fast ulcer healing rate, prevention of ulcer recurrence
- Improved skin integrity & density
- More effective than bandages in reducing edema & healing ulcers

### LIPEDEMA / LIPOLYMPHEDEMA

- Reduction in leg volume
- Tissue support
- Increased mobility, decrease in discomfort and pain (based on observational reports)

### LIPOSUCTION

- Effective volume reduction in the management of post-operative edema after liposuction



## BENEFIT 3: COST-EFFECTIVE

### DIRECT COST SAVINGS - MATERIAL SAVING:

- Wraps washable & re-usable
- Material costs for wraps versus bandages met after approximately one month = cost-effective despite initial outlay

### INDIRECT COST SAVINGS - TIME SAVING:

- Self-application: fewer clinic visits, more time available for the clinician to perform manual lymph drainage & skin care
- Application/handling quick & easy to learn by clinicians & caregivers



## BENEFIT 4: ENHANCED QUALITY OF LIFE

- Increased comfort (low resting pressure) while being effective
- Improved gait, stability & mobility
- Nicer cosmetic appearance & less bulky than bandages
- Normal clothes & shoes can be worn again
- Improved wound care
- Enhanced independence, confidence & satisfaction
- Improved psychosocial aspects
- Increased concordance & compliance

## TAKE-HOME MESSAGE

Wraps do not only improve the clinical outcome of lymphedema and CVI patients, but they also clearly increase their quality of life through autonomous handling and self-management while being comfortable, hygienic and cost-effective.