Evidence Based Compression Recommendations For Lymphedema

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Disclosures
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Elastic (ACE) Bandages
Illustration of the difference in stretch between elastic and inelastic bandages. The more stretch that is present, the weaker the effect on reduction of leg edema.

Edema Management
The Use Of Elastic Bandages, Kerlex, Stockinette, TED Hose, Or Tube Gauze For Leg Swelling, Venous Stasis Ulcers, Or Venous Insufficiency-induced Lymphedema Is Suboptimal At Best

Elastic (Long Stretch) Compression
- High resting pressure
  - Uncomfortable over time
- Low ambulatory pressure
  - Bandage "gives way" walking
  - Edema increases
- SSI <10mmHg*
**Inelastic (Short-Stretch) Compression**

- Low resting pressure
  - Comfortable at rest
- High walking pressure
  - Edema decreases
  - SSI > 10mm*
- Modalities include Unna’s boot, short stretch bandages, and velcro devices

*Standing stiffness index

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**Short-Stretch Bandage System**

Layered bandage 4-7 rolls

Coban overlayer stabilizes wrap

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**The Challenge Of Lymphedema**

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**Lymphedema**

Prescribing 30-40mm Hg Elastic Hose In These Patients Frequently Is Unsuccessful And Counter-productive

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**Flat-knit Stockings May Be Useful In Some Of These Patients**

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Patients With Severe Lymphedema Benefit From The Use Of Velcro Compression Systems As Part Of A Long-term Strategy To Control Edema And Improve Functionality

Most people are unaware that giraffes have venous pressures of more than 250 mmHg at their ankles. That is three times more than humans. However, giraffes do not suffer from lymphedema or venous disorders. Physiologists have discovered the answer, it is in the skin. Giraffe skin is inelastic, so it does not stretch. As their leg muscles contract the veins in the legs are squeezed forcing the blood toward the heart. Thus, giraffes are not susceptible to problems like lymphedema and venous disease, even though they may be on their feet 24 hours a day.

Velcro Compression

• Short-stretch
  – Low resting pressure-comfortable
  – High working pressure
• Decreases venous volume and edema
• Adjustable as edema decreases
• Ideal for those unable to don/doff stockings
• Stocking failures
• Postoperative leg swelling
• Lymphedema

Venous Insufficiency Induced Lymphedema

Venous Insufficiency-induced Lymphedema After Treatment With Velcro Devices And Lace Shoes
Portable Inflatable Stocking + Sequential Pneumatic Compression

- Lymphedema
- Donning and doffing issues
- Wheelchair bound patients
- Work involving standing/sitting all day
- Airline travel
- Major cancer surgery
- Prolonged postoperative courses

Lymphedema Pump To Treat Leg Swelling

THE END