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Compression delivered by EdemaWear:

EdemaWear competes with Tubigrip/Elastigrip-type compression stockinet in the "mild compression" space. Mild compression being a compression level of ~ 15- 20 mm Hg.

Compared to Jobst-type stockings, ACE wraps and Tubigrip type textiles EdemaWear is:

- More effective in reducing edema. A clinical study at Paradise Valley AZ Wound Clinic and Lymphedema Center by Matthew Livingston, RN author of the *Scottsdale Wound Care Handbook*, and Sara Ross, PT compared the limb circumference decrease in 10 patients wearing either EdemaWear or Tubigrip for 14 days. EdemaWear performance in moving water out of the subcutaneous fat was dramatic.
- Always used in a single layer, versus the double layer of Tubigrip
- Less expensive
- Latex-free
- More comfortable in hot environments
- Easier to don and doff
- Revered by patients because it is comfortable to wear which is demonstrated by high compliance

Fuzzy Wales

We developed EdemaWear at the University of Nebraska Medical Center to move water out of the subcutaneous fat to heal Venous Leg Ulcers. EdemaWear textile stockinet is composed of fuzzy longitudinal wales (a wale is the fuzzy part of knitted corduroy cloth) that are connected by Lycra spandex elastic yarns. See photo below.)



Fuzzy Wale elastic compression textile, EdemaWear, at 40 power, shows the knitted wale suspended by Lycra spandex elastic yarns. “Wale” is a knitting term that describes the fuzzy surface of corduroy cloth.

Fuzzy wales create a unique compression stockinet that compresses just 20 percent of the skin surface. The non-compressed skin between wales allows water to evaporate, and heat to radiate from 80% of the skin surface. The non-compressed subcutaneous fat between wales has open veins and lymphatics that return edema fluid to the heart.

The route that the fluid in subcutaneous fat takes is into veins and lymphatics that accompany the arteries that supply the skin. These vessels perforate the fascia of the thigh and calf. Skin gets its blood from and returns venous blood and lymphatic fluid from the adjacent muscle. EdemaWear is engineered to move water through the perforating vessels to the deep limb muscle veins and lymphatic.



*Fuzzy wales of EdemaWear have created furrows (see blue arrow) in periwound skin, around a chronic R venous leg ulcer (VLU). Furrows form in the subcutaneous fat as water moves out of the limb. We are Cornhuskers at the University of Nebraska, hence the term **cornrow furrows**.*



Figure 1 - Fuzzy wales of EdemaWear have created cornrow furrows in peri-wound skin around a chronic L venous leg ulcer, same patient as Figure 2. This patient, a draftsman who sits at work and sleeps sitting up, had pitting edema due to congestive heart failure (CHF). With diuretics and EdemaWear, he lost 22 pounds in 14 days before this photograph was taken.



Figure 2 - Size small EdemaWear LITE (purple strip) is applied to the limb of the patient in above photos. A contact dressing will be placed over the wound and then a three layer Profore-type dressing will be applied to compress the limb and heal the VLU. EdemaWear adds considerable horse power to a Profore-type layered compression dressing.