Elastic Compression of Bioengineered Human Skin Substitute Improves Chronic Ulcer Healing: Fuzzy Yarn Compression Controls Wound Bed Edema

**Problems**
- Diabetic, on insulin
- Lateral ankle ulcers
- Pedal pulses present
- Healing staʃed in a pile of community wound center therapy with use of honey for 5 months

**Rx**
- Bioengineered human skin substitute
- Hypochlorous acid solution
- Acoustic powered debridement
- HEMA nanoparticle power dressing
- Longitudinal yarn compression textile

**Outcome**
- Ulcers healed with 12 weeks of Longitudinal Yarn Compression and bidulation control
- Ulcers healed 9 weeks after Bioengineered Human Skin Substitute

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**Problems**
- Venous insufficiency
- Atherosclerosis
- On Prednisone for emphysema

**Rx**
- Compression with Longitudinal Yarn Compression textile for four months to control severe stasis dermatitis
- Two applications of Bioengineered Human Skin Substrate®

**Outcome**
- Compression with Longitudinal Yarn Compression textile for four months to control severe stasis dermatitis
- Two applications of Bioengineered Human Skin Substrate®

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**Problems**
- Recurrent leg ulcers
- Poorly controlled diabetes

**Rx**
- Longitudinal Yarn Compression as the first layer of a four layer dressing
- HEMA nanoparticle gel
- Bioengineered human skin substitute
- Weekly mechanical control of bio/film with Hypochlorous acid solution and 22.5 kHz ultrasound debridement

**Outcome**
- Ulcers healed 9 weeks after bio/film grafting
- 9 weeks post split thickness grafting
- Wounds heal seven weeks after human skin substitute

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**Problems**
- Chronic ulcer pain
- Venous insufficiency
- Stasis dermatitis

**Rx**
- Polyurethane graft
- Scalpel and curette
- HEMA nanoparticle powder

**Outcome**
- 17 Days of Longitudinal Yarn Compression.
- Ulcers Healing, at Time of Publication, After 17 Days of Longitudinal Yarn Compression.