ADVANCING THE SCIENCE OF WOUND HEALING

drawtex®
A Hydroconductive Wound
Dressing with **Leva***Fiber*™ Technology

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drawtex®
A Hydroconductive Wound Dressing with LevaFiber™ Technology

A Beier Group company

Beier Drawtex Healthcare is a South African medical device company with a global footprint, combining 80 years of manufacturing expertise with an ambition to change the face of advanced wound care through unique technologies and clinical excellence.

The Beier Group is a forward-looking innovator and manufacturer in the technical textiles and personal protective equipment industries. The Group's manufacturing mix includes environmental filtration products, technical and industrial textiles, medical devices and advanced wound care, PVC- and PU-coated materials, as well as personal protective equipment and occupational health and safety services.

Beier believes that industrialisation is the best path to a transformed South Africa, championing local transformation through its various brands. As such, the Group is committed to supporting local SMMEs, driving industrialisation as a vehicle to stimulate economic growth, job creation and shared prosperity. This can be seen in Beier's dedication to local manufacturing, as well as their investment in new infrastructure and technological upgrades. Beier also focuses on uplifting local youth through education and skills development programmes, investing in the pioneers and innovators of the future.

Through these initiatives, the Group is playing its part in advancing our nation's economic growth and development.

BEIER GROUP

BEIER ENVIROTEC	A baghouse specialist & an experienced producer of technical textiles & environmental filtration products
BBF SAFETY GROUP	An integrated workplace safety solutions provider
BEIER DRAWTEX HEALTHCARE	A medical device company with a global footprint
Macbean Beier Plastics (Pty) Ltd t/a Neucoat success through quality	A manufacturer of a range of coated fabrics for various industrial applications

The Beier Drawtex Healthcare story

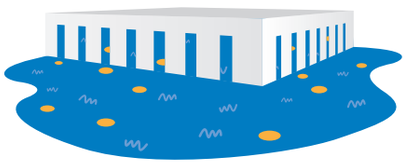
Beier Drawtex Healthcare was established in 2010. The manufacturing of Drawtex® is carried out in our state-of-the-art facility situated in Pinetown, South Africa and produced under ISO 13485:2016 and CE (European) mark registration, the guarantee of quality production to the highest European Standards and the Food and Drug Administration (FDA) of the United States.

Drawtex® wound dressing is the first and only hydroconductive wound dressing on the market. Drawtex® has a presence in South Africa, Europe, USA, China, Malaysia, Indonesia, the Middle East and Africa.

How Drawtex® wound dressings work

LevaFiber™ Technology provides three different types of action

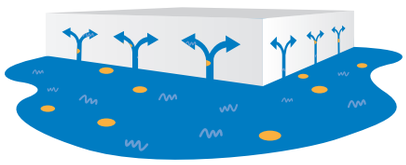
Capillary action



Capillary action gives Drawtex® its ability to move wound exudate and wound debris into the porous material of the dressing.

With the small pores acting as capillaries, intermolecular attractive forces between the exudate and solid surfaces of the wound dressing allow the exudate to be drawn upward against the force of gravity.

Hydroconductive action

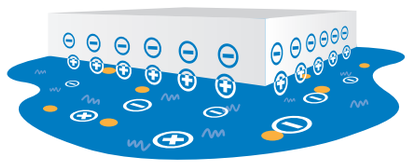


Hydroconductive action is controlled by Darcy's Law, which defines the ability of a fluid to flow through porous media.

Fluid can move from wetter to drier – even against gravity.

This explains how water can be transported from the roots of a tree to the leaves. The **LevaFiber™ technology of Drawtex® allows the dressing to lift, hold and transfer** the wound exudate both vertically and horizontally, through hydroconductive action.

Electrostatic action



Electrostatic action occurs when the negatively charged Drawtex® wound dressing comes into contact with the wound exudate. Ions from the exudate form a mobile layer of the opposite charge known as the electric double layer, effectively reversing the charge on the surface of the dressing to become positive. **This allows the dressing to draw out a relatively large amount of exudate, devitalised tissue, bacteria and deleterious chemical mediators.**

Drawtex® is indicated for wounds with moderate to high levels of exudate, including:

Chronic wounds

- Leg ulcers
- Diabetic foot ulcers
- Pressure ulcers (stage 2 – 4)

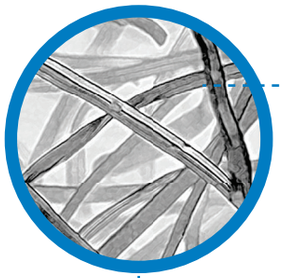
Acute wounds

- Complex surgical wounds
- Burns

Mechanisms of action

LevaFiber™ Technology

drawtex®
A Hydroconductive Wound Dressing with LevaFiber™ Technology

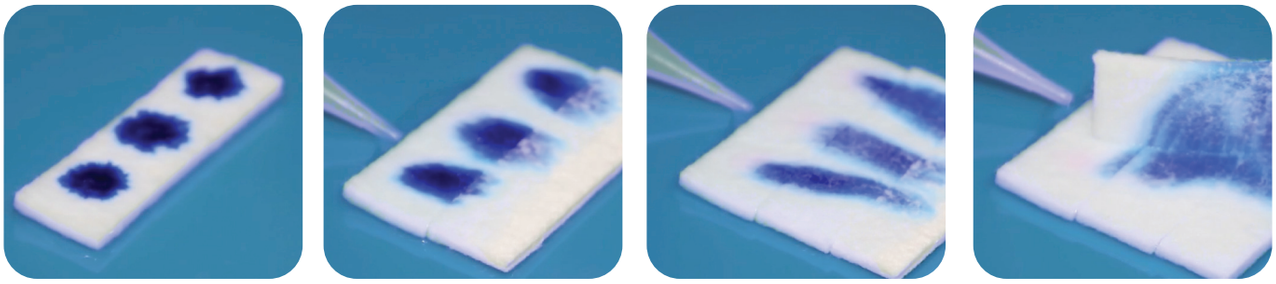


Drawtex® is a unique composite dressing with layers of viscose, polyester and cotton, the combination of which provides capillary action that lifts and moves exudate and debris away from the wound surface.

Drawtex® is a hydroconductive wound dressing with LevaFiber™ technology. In summary, we found the material to be extremely versatile and appropriate for multiple wound types and levels of exudate.

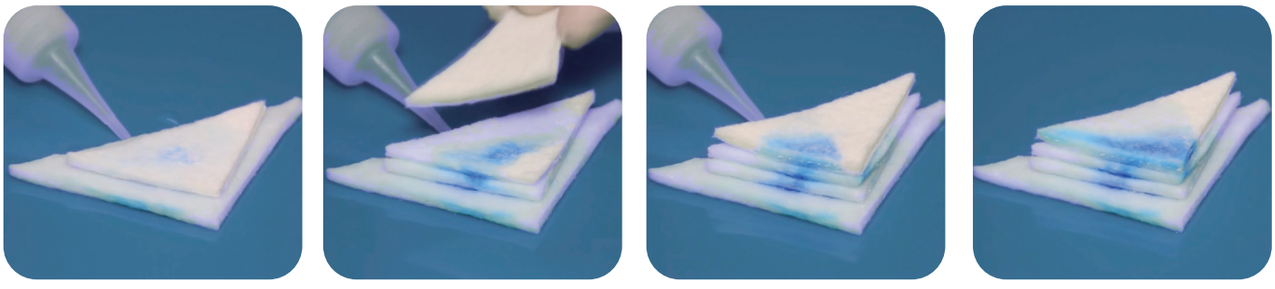
Mechanisms of action: Demonstration 1

- Coloured fluid is used to represent exudate present in the wound.
- Drawtex® pulls the exudate into the wound dressing, simulating what happens as the wound exudes.
- As more pieces of Drawtex® are added, the exudate moves towards the clean Drawtex®.
- Once the final piece is placed on top, it can be observed that the exudate is wicked away, both horizontally and vertically.
- This perfectly demonstrates how Drawtex® transfers exudate away from the wound bed.



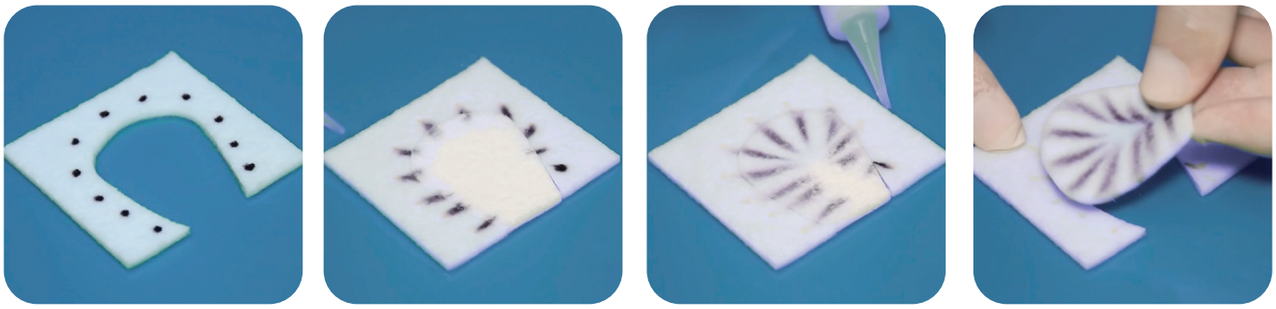
Mechanisms of action: Demonstration 2

- The dressing can be layered as required, with any of its surfaces in contact with the wound tissue.
- Drawtex® can be applied on either side and is also effective under compression therapy.



Mechanisms of action: Demonstration 3

- The dressing has been cut to represent the shape of a wound cavity – a major challenge is reaching the bacteria situated in deeper compartments of the wound bed.
- Drawtex® is inserted into the 'cavity' and, as the wound oozes, the bacteria is absorbed by the bandage, which is plugged inside the cavity of the wound.
- This helps to create a natural environment for the wound to heal.

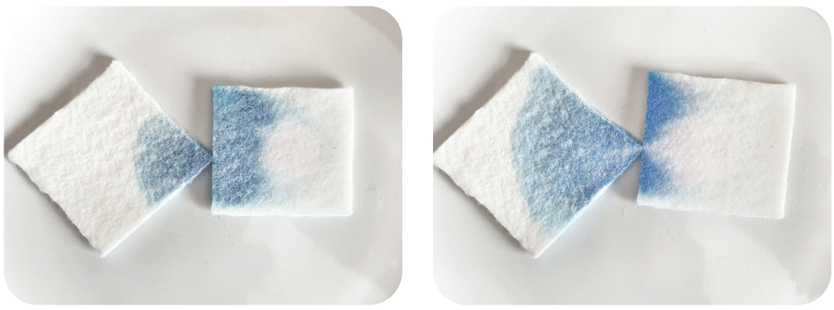


Mechanisms of action: Demonstration 4

- To demonstrate how Drawtex®'s LevaFiber™ Technology allows the dressing to lift, hold and transfer the wound / exudate both vertically and horizontally by hydroconductive action, coloured fluid is placed in a glass.
- A strip of Drawtex® is placed in the glass and the fluid can be seen to be drawn up the bandage, against gravity.

Mechanisms of action: Demonstration 5

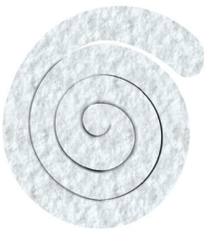
- Drawtex® also does not require a large surface area to come in contact with the exudate. A small contact area is enough to facilitate absorption into the rest of the dressing.



Drawtex® can be easily cut & shaped to fit any type of wound

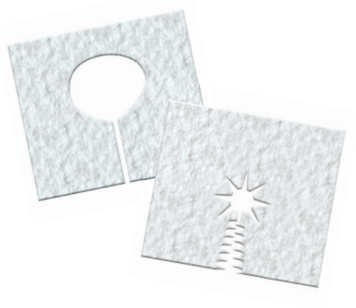
Sacral shape

To fold into heart-shaped wounds, with vertical cuts splaying slightly to fill the area.



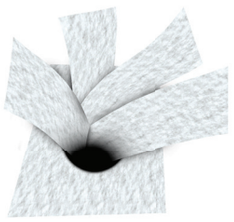
Spiral shape

To fill cavities or to cover amputations.



Stoma shape

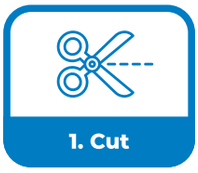
To fit around G-tubes and trach tubes. Drawtex® Tracheostomy dressing may also be used.



Drain shape

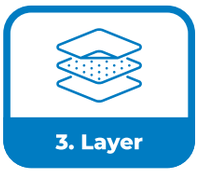
To drain by way of cutting strips, with the opposite end going into a colostomy bag.

Highly effective & easy to use



Drawtex® can be cut to conform to any wound shape. Any side of the dressing can be used against the wound bed.

For low exudating or dry wounds, apply a perforated, nonadherent dressing before applying Drawtex®. For best results, ensure the dressing has direct contact with the wound bed.



For moderate to highly exudating wounds, apply Drawtex® directly to the wound bed. For heavy exudate, apply additional layers as necessary.

Cover with a secondary dressing or bandage of your choice.

Change the Drawtex® dressing every one to three days, as necessary. Once exudate is under control, the dressing may be changed less frequently. If you're using the adherent Drawtex® dressings, irrigate with saline for easy removal.

Drawtex®: Uses in clinical practice

At Beier Drawtex Healthcare, we are passionate about, and dedicated to, the principle of evidence-based medicine. We strive to offer clinical proof of the efficacy of the Drawtex® product range, enhancing the quality of the life of every patient we treat.

To support this goal, Drawtex®:

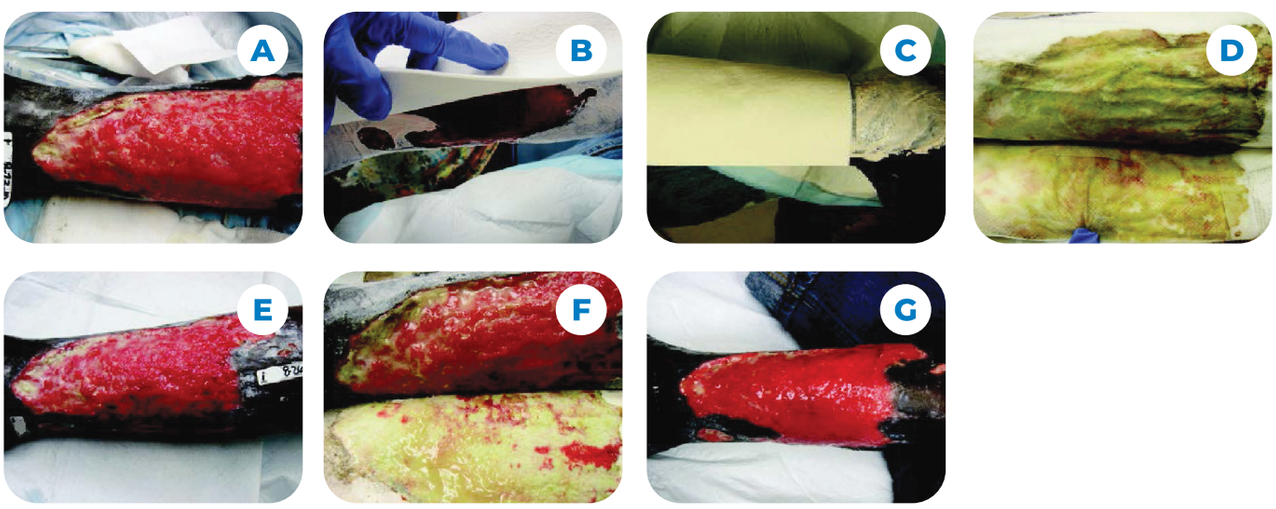
- ✔ Has a strong global clinic research and development programme
- ✔ Conducts ongoing clinical trials and evaluations
- ✔ Has published 50+ clinical publications and posters worldwide
- ✔ Backs up all our claims with clinical evidence

Clinical Practice Evaluation and Usage of a Novel Absorbent Dressing Dot Weir, RN, CWON, CWS, and Melodie Blakely,

The following cases illustrate 4 examples of selected uses from our evaluation.

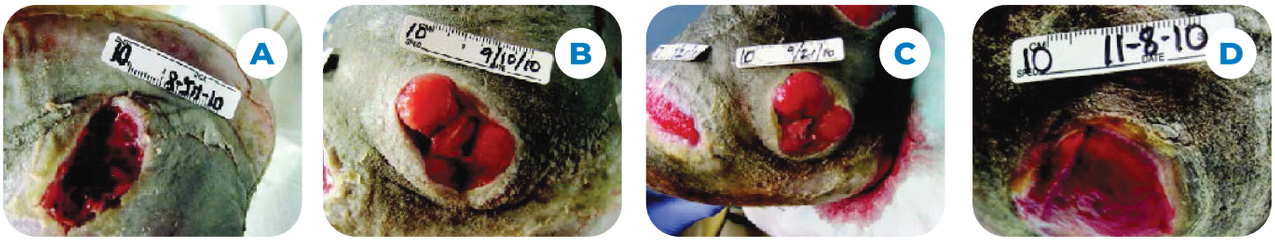
Case 1: Absorbency and wicking of exudate

79-year-old male with history of type 2 diabetes, gout, and 1-year history of LE ulcer increasing in size, diagnosed via biopsy at a previous point of care with vasculitis versus pyoderma gangrenosum. Patient had a history of pathergy with debridement. Patient was placed on oral steroid therapy. Initial 3 weeks of treatment while waiting for medical records from multiple sources was silver hydrofibre, absorbent dressings and multilayer compression. On August 23 (photo A), we began using Drawtex® with barrier ointment to protect skin from exudate, and a multilayer compression wrap, which was changed twice weekly. Subsequent photos (B–F) show dressing application and removal, clearly illustrating absorptive properties and vertical wicking of the dressing. At day 10 (photo G), wound was clean with less exudate.



Case 2: Unhealthy hypergranulation tissue

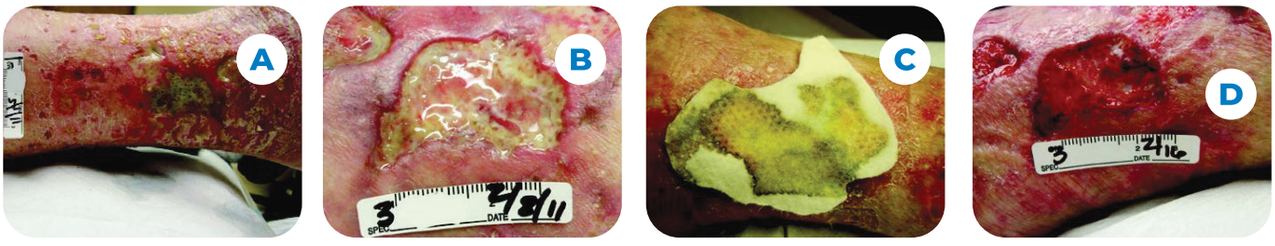
42-year-old female, type 1 diabetes, ESRD, history of BKA on right secondary to necrotising fasciitis, and severe Charcot deformity of the left, with total destruction of the ankle. This caused her to essentially bear her full weight on the distal head of the fibula when weight-bearing. Patient had a history of multiple long-standing ulcers to entire left foot. Photo A shows post-debridement and drainage of abscess to left lateral ankle. Patient primarily used wheelchair but used left foot when necessary to pivot out of chair. NPWT was used, bridging all the ulcers to improve tissue; however, the fact that the lateral ankle ulcer was over the primary weight-bearing area of the foot resulted in bulging tissue and tunnelling 1.6 cm in multiple directions (Photo B). Drawtex® was initiated under compression wraps to all ulcers. Remaining photos (C, D) illustrate reduction in bulging tissue and resolution of tunnelling after 7 weeks. On November 8, the wound bed was prepared for utilisation of bioengineered tissues, which ultimately resulted in healing.



Case 3: Debridement of adherent slough

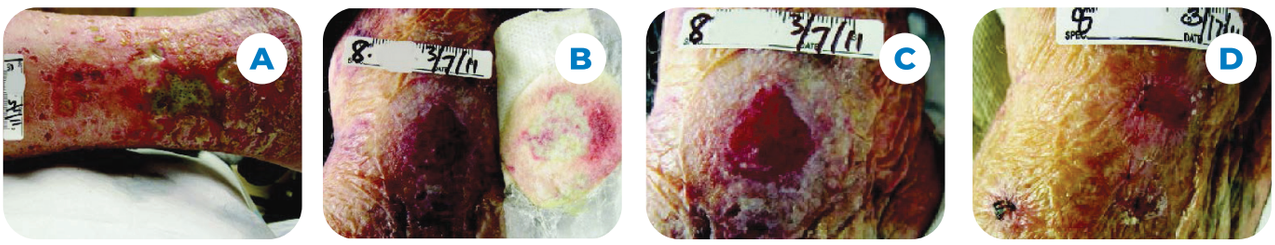
54-year-old female, heavy smoker with hypertension and otherwise unremarkable past medical history. History of painful venous ulcer greater than 1 year, has had intermittent care due to uninsured status. Initial presentation was on February 1, 2010 (photo A). Debriding with instruments was difficult due to extreme pain (10/10). An antimicrobial foam used under multilayer compression resulted in little improvement in Week 1.

Drawtex® was initiated in Week 2 (photo B). Photo C (taken in Week 3) shows the dressing before removal, illustrating vertical transmission of exudate, which resulted in loosening of adherent slough to the extent that ultrasonic debridement was able to be tolerated, ultimately resulting in a much cleaner wound bed.



Case 4: Avulsive skin tear

87-year-old male, severe rheumatoid arthritis, being seen primarily for abdominal wound with fistula. He sustained an avulsive skin tear to the left upper forearm and had been covering it with a plaster before discovery at clinic (photo A). Drawtex® was initiated and covered with a transparent film dressing to prevent drying. Photographs show weekly dressing changes, with no difficulties with removal or adherence (photos B–D)



Conclusion

- The dressings were easy to cut and custom-fit to the wound bed or tract.
- Our early experience began with highly exudating wounds, with and without undermining and tunnelling; here, we found it transferred the exudate into a secondary dressing remarkably well, and reduced exudate build-up on the surface and in the deeper compartments of the wounds.
- We also observed that it benefitted the wound by creating an autolytic environment that removed adherent slough, either as the primary method of debridement or as an adjunct to instrument debridement.
- Using this feature of the material, we also realised success in reducing hypergranulation tissue.
- As we expanded our usage, we approached lower exudating wounds with a bit of trepidation due to concern about potential adherence to the wound bed and the possibility of causing pain and trauma at the wound site. Our experience showed that, if the dressing appeared to have adhered to the wound bed, we could readily lift it off after moistening it for a short time with normal saline.
- We eventually settled on the combination of using the product with a transparent film or foam cover dressing. This created a humid atmosphere, which reduced the drying out that would occur when we used gauze as a secondary dressing.

References

Russell L, Evans A. Drawtex: a unique dressing that can be tailor-made to fit wounds. Br J Nurs. 1999;8(15):1022– 1026. Product information. Drawtex. Available at: www.drawtex.com (accessed 9 Dec, 2010).

Debridement ability

Hydroconductive Debridement: A New Perspective in Reducing Slough and Necrotic Tissue Matthew W. Livingston, RN, BSN, CWS, ACHRN | Tom A. Wolvos, MS, MD, FACS

Debridement is essential to optimally managing wounds with slough, necrotic tissue and infection. Successful debridement prepares the wound bed for granulation tissue and reduces bioburden and other toxic factors that can make the wound bed susceptible to infection.

This case study series was conducted to evaluate Drawtex®, which works by selectively debriding wounds, and proves that:

- The hydroconductive dressing debrides undesirable tissue, while leaving healthy tissue unchanged.
- Drawtex® improves wound healing by the rapid removal of wound exudate.
- Rapidly removing wound exudate suppresses wound biofilm by reducing the activity and number of bacteria.

Methods

- Patients with all wound types were included in this study if their wound beds consisted of adherent slough and necrotic tissue.
- Dressings were applied with or without compression. The dressings were changed every 1 to 7 days.
- Each case study lasted 3 weeks, with concurrent Drawtex® applications.

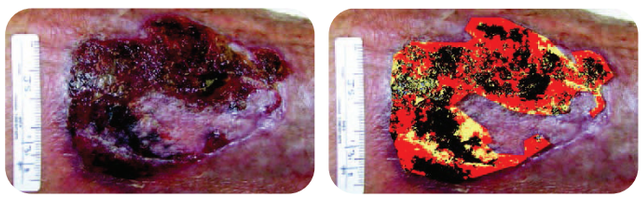
Drawtex® applications

- The use of sharps debridement, non-contact ultrasound systems, contact ultrasound systems, contact hydro surgery systems, and other forms of debridement were not employed while evaluating this dressing.

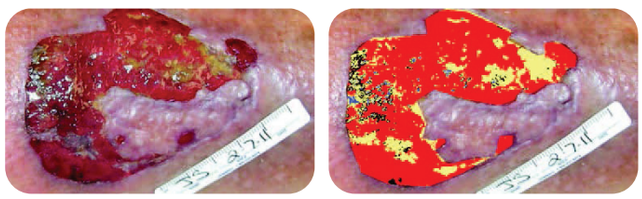
Dressing placement

- During application, the dressing was either cut to fit or overlapped the wound in one or two layers, ensuring that the dressing directly contacted the wound bed. A secondary dressing was employed as necessary.

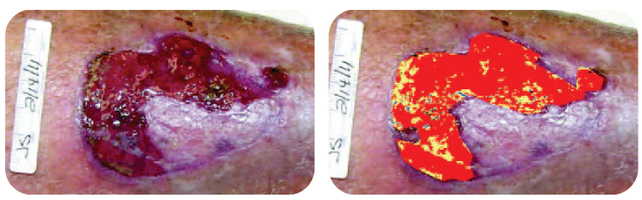
Case Study #7



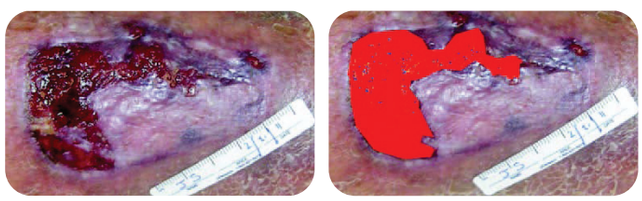
WEEK 0



WEEK 1



WEEK 2



WEEK 3

Dressing removal and wound bed preparation

- The wound bed and periwound areas were cleaned with a wound cleanser or soap and water. Lidocaine or EMLA cream was used on the wound bed for pain control as necessary.
- Wound bed slough was wiped away with gauze and gentle pressure.
- Bleeding was controlled prior to photo documentation.

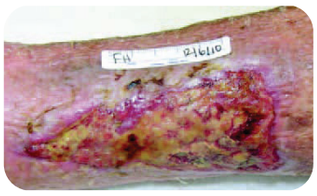
Documentation

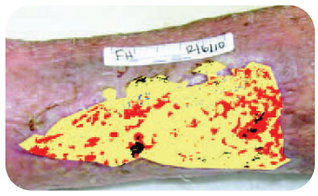
- The wound bed was photographed at dressing changes.
- Photographs were taken with a centimetre measurement tool in the image.
- No changes in image quality, such as colour enhancement, saturation or contrast was allowed; however, cropping of the image was considered appropriate.
- Images were taken at a high digital quality to ensure accurate wound bed-quality analysis. The images from the case studies were submitted for independent wound bed analysis (Imago Care Ltd., London, UK). The EliXr™ photo recognition programme provides accurate readings of the wound bed content (including granulation, slough and eschar) reported as a percentage of the total wound. EliXr™ is a statistical pattern-recognition algorithm that classifies each wound colour pixel in a wound image, providing a documented area measurement variance of only 1% (with flat wound images) to 5% (with rounded wound images).

Results

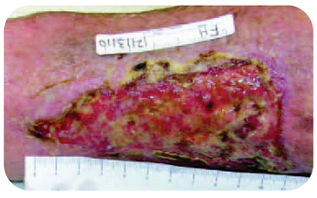
- The results of this eight-case series indicate that the hydroconductive dressing was able to remove adherent slough and eschar at an average rate of 36% by Week 1, 52% by Week 2, and 77% by Week 3. Case study #3 is an example of a wound with a 37.25cm² surface area that showed a 68% reduction in slough over the 3 weeks.
- There was a corresponding reduction in the average percentage reduction in wound area of 15% by Week 1, 35% by Week 2, and 47% by Week 3. Case Study #7 is an example of how hydroconductive debridement can occur with the hydroconductive dressing, while reducing the area of the wound bed. In this case, the wound area was reduced from 27.03cm² at week 0 to 10.40cm² at week 3 (a 62% reduction).

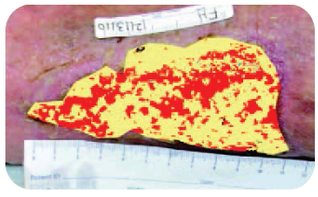
Case Study #3



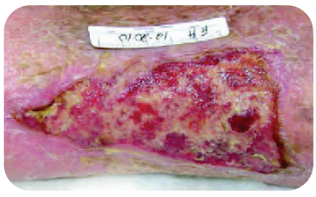


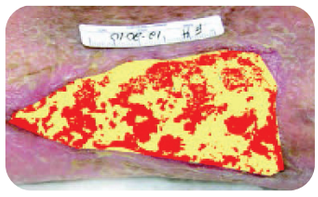
WEEK 0



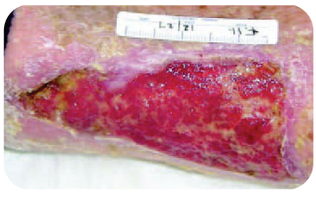


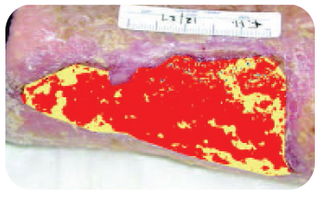
WEEK 1





WEEK 2





WEEK 3

Conclusions

- **Clinicians noted that the method of debridement of this hydroconductive dressing appears to differ from previously described classic methods (including autolytic, chemical or mechanical debridement).**
- **This unique hydroconductive dressing is able to provide selective debridement with an average reduction in slough and eschar of 77% over 3 weeks, while leaving viable tissue undamaged.**
- **This lets wound healing occur, as seen in an average wound area reduction of 47% over 3 weeks.**

References

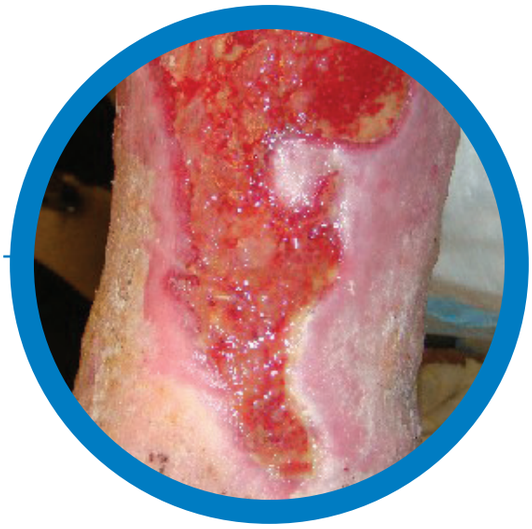
1. Brett, D. A Historic Review of Topical Enzymatic Debridement. New York, NY: The McMahon Publishing Group, 2003: 51. 2. Bryant R, Nix D. Acute & Chronic Wounds Current Management Concepts. Third Edition. St. Louis, MO: Mosby Elsevier, 2007: 176. 3. EliXr. White paper on fi le with Imago Care. 2010. 4. Livingston M, Wolvos T. Scottsdale Wound Management Guide. Malvern, PA: HMP Communications, 2009

Detoxification of venous leg ulcers

Detoxification of venous ulcers with a novel hydroconductive wound dressing that transfers chronic wound FLUID AWAY FROM THE WOUND Phillip Lichtenstein 1, Martin Wendelken, DPM, RN1, and Oscar M. Alvarez, PhD 1, 2
1 - Center for Curative and Palliative Wound Care, Calvary Hospital, Bronx, NY
2 - Department of Medicine, New York Medical College, Valhala, NY

The chronicity of venous ulcers (VUs) can be defined clinically by excessive granulation tissue, increased fibrosis, hyperkeratotic wound margins and increased lipodermatosclerosis.

Wound fluid (exudate) from chronic VUs contains excessive levels of MMP-9. Furthermore, it has been reported that these gelatinases need to be down-regulated to permit healing.



Objective:

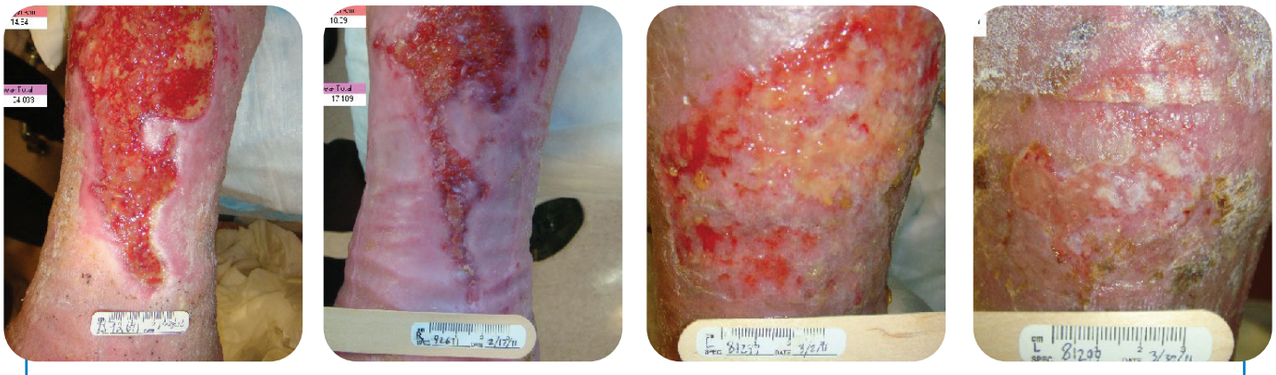
- To evaluate a viscose, polyester, cotton hydroconductive (natural vacuum) wound dressing (HWD) in patients with venous ulcers.

Study design

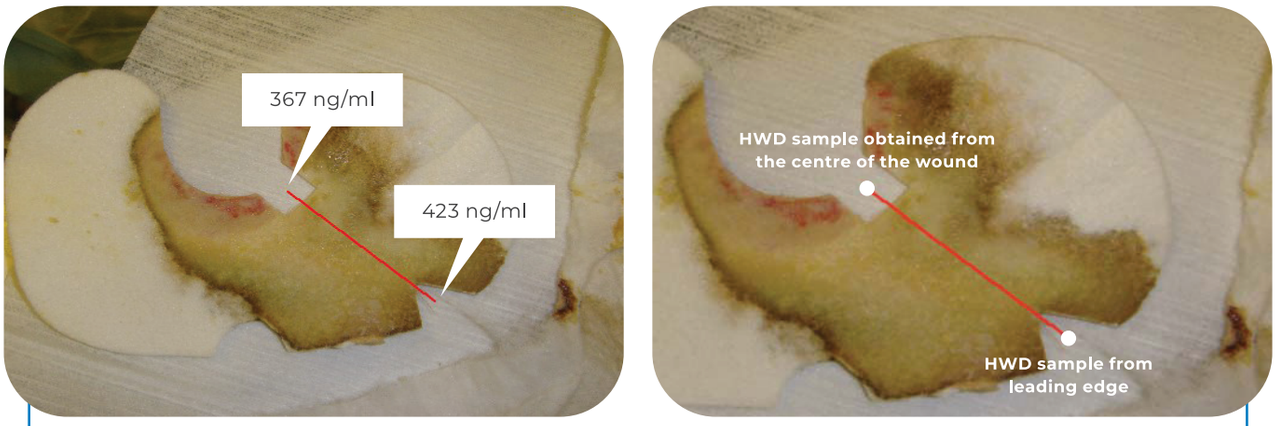
- Controlled, single centre pilot study involving 28 subjects (13 treated with HWD and compression, and 25 historical controls treated with compression alone).

Results

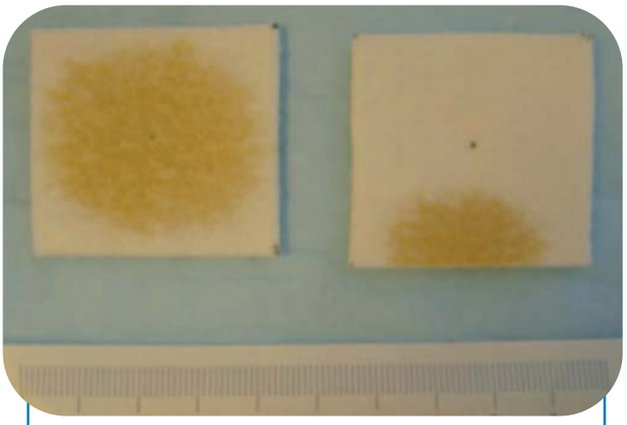
- In the HWD group, the mean wound score was 2.1, and in the standard care group the mean wound score was 1.5. Wound MMP-9 levels decreased throughout healing in the HWD.
- Upon MMP analysis of HWD, MMP-9 was detected in HWD at wound interface and distal (up to 7cm) away from the wound.



Before and after photographs of ulcers treated with HWD



Before and after photographs of ulcers treated with HWD



1ml of wound fluid applied to the centre or edge of HWD (note that HWD is more efficient when absorption takes place from the edge)

Method illustrating the use of a hydroconductive wound dressing (HWD). Note that, to maximise absorption from the edges, and to minimise contact of the HWD with the wound bed, the HWD was cut so that only the edges came in contact with the wound.

Conclusions

- **HWD was 29% more effective than standard care. HWD effectively transfers wound fluid away from wounds by a "natural vacuum" created by the hydroconductive viscose (LevaFiber™).**
- **More studies are needed in a variety of inflammatory chronic wounds to investigate the mechanism and effect of this.**

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Dehisced surgical wounds: A case series

Hydroconductive Dressings Used to Heal Dehisced Surgical Wounds: A Case Series

Kara S. Couch, MS, CRNP, CWS, Nurse Practitioner, and Leslie A. Cnossen, RN, BSN, CWOCN, Registered Nurse, Complex Wound Team, Walter Reed National Military Medical Center and Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, MD; and LTC Charlotte Hough, MSN, FNP, USA, NC, Nurse Practitioner, Wound Clinic, Fort Belvoir Community Hospital, Fort Belvoir, VA

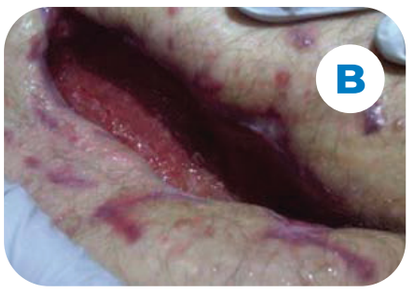
Drawtex® hydroconductive wound dressing draws wound exudate both horizontally and vertically into the dressing, (2,3) draws debris and slough from the wound, and draws bacteria and deleterious cytokines from the wounds. (4-6)

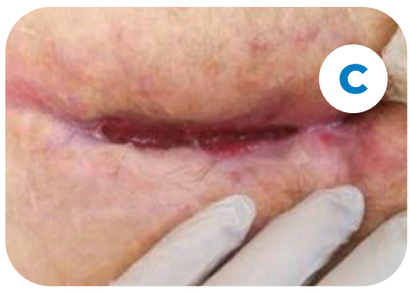
Although this topical therapy is most commonly associated with highly exudative wounds such as venous leg ulcers, we have also been utilising it in the treatment of acutely dehisced surgical wounds with great success.

We present our experiences with four dehisced surgical wounds that were treated with the HCD. In each case, the patient's wound had been treated for at least 2 weeks with an alternative product and did not progress within expected norms of wound healing.

Case 1: Pilonidal cystectomy wound

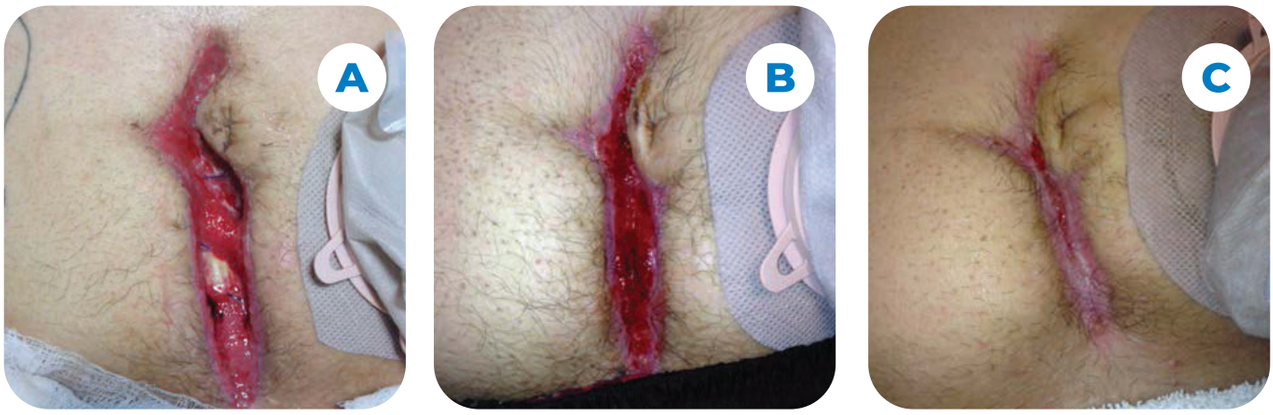
A 21-year-old male patient had a 7-month history of pilonidal disease. Following a wide excision of a pilonidal cyst, the cyst recurred with sinus tracts, requiring a second wide excision. He then was treated with negative pressure wound therapy (NPWT) for 3 weeks until he could no longer tolerate that treatment. Outpatient daily dressings with HCD were initiated. The wound measured 14cm x 2.5cm x 5.0cm. Within 5 days of treatment, the wound had healthy granulation tissue and measured 14cm x 1.5cm x 4.0cm (see Figure 1a). After 5 weeks of HCD dressing changes, the wound measured 13cm x 1.25cm x 3.0cm (see Figure 1b). Six weeks later, the wound measured 6.0cm x 1.0cm x 1.5cm (see Figure 1c). The wound displayed a substantial reduction in exudate and an increase in wound contraction with the use of HCD.





Case 2: Abdominal wound dehiscence

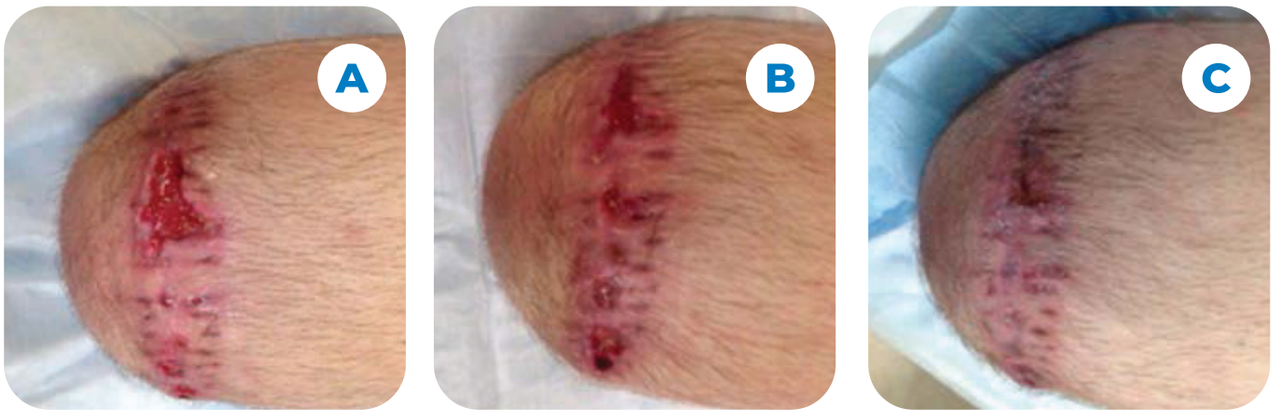
A 20-year-old man sustained gunshot wounds to the abdomen, resulting in T-10 paraplegia. He was transferred to our wound service with a stage IV sacral pressure ulcer. After undergoing a diverting colostomy in preparation for a flap closure of the sacral wound, he developed an infected abdominal incision, requiring incision and drainage. Following a short period of 0.25% sodium hypochlorite soaks, HCD treatment was begun. At that time, the wound measured 14.0cm x 5.0cm x 3.5cm (see Figure 2a). Six weeks later, the wound measured 5.0cm x 3.0cm x 0.1cm and was fully granulated with epithelial advancement at edges (see Figure 2b). After an additional 3 weeks of HCD dressings, the wound measured 3.0cm x 1.5cm x 0.1cm. At this time, we discontinued HCD and used hydrogel dressings until wound closure (see Figure 2c). Total wound closure occurred 1 week later.



Case 3: Transtibial amputation (TTA) dehiscence

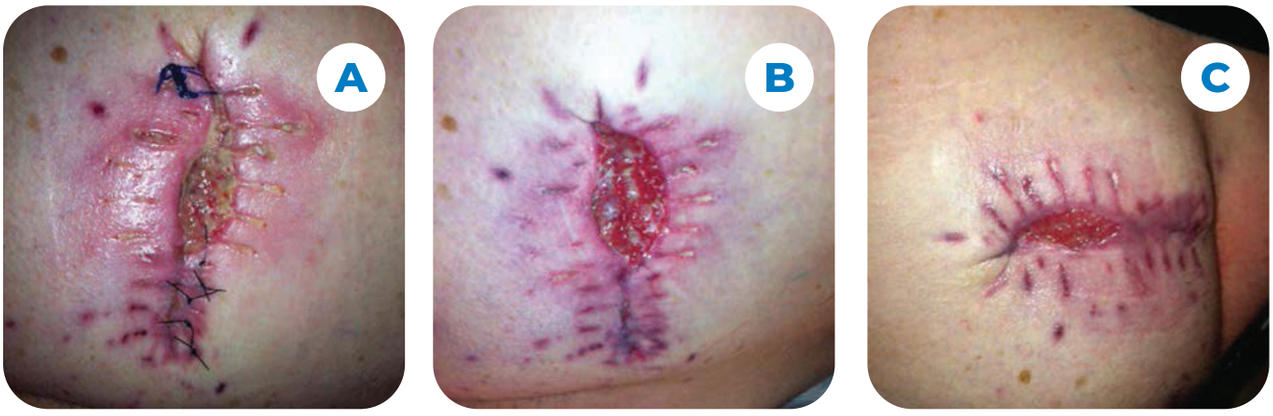
A 22-year-old active duty army specialist sustained a dismounted combat improvised explosive device (IED) blast in Afghanistan, resulting in multiple fractures of his right lower extremity. He underwent numerous orthopaedic procedures to treat the fractures, including the use of external fixators. He was evaluated for a limb salvage procedure, including a microvascular free flap, but elected to have a transtibial amputation to regain maximum functional ability. His wound dehisced, leaving an open wound that measured 3.0cm x 2.0cm x 0.1cm (see Figure a below). He was treated with Manuka honey and low-frequency, noncontact ultrasound treatments twice a week.

After little progress toward a healing trajectory over the next several weeks, the topical therapy was changed to an HCD. At that time, the wound measured 2.3cm x 2.9cm x 0.2cm, and there was a new pocket along the incision at the medial corner open to a depth of 2.0cm (see Figure b). After 8 weeks of HCD changes, the wounds were completely healed (see Figure c).



Case 4: Shrapnel wound: Delayed primary closure dehiscence

A 36-year-old active duty Marine Corps Major sustained extensive shrapnel injuries to his right buttock from a suicide bomber in Afghanistan. He underwent eight procedures for irrigation and debridement of his wounds with NPWT before he was transferred from the combat zone to our facility. Following delayed primary closure and NPWT, the wound dehisced and was treated with various topical therapies, including cadexomer iodine gel and carboxymethylcellulose dressings with secondary composite dressings (see Figure a). Because the wound was not healing satisfactorily, HCD, low-frequency ultrasound therapy twice a week, and topical steroid cream daily for periwound dermatitis were initiated. Following 13 days of the HCD treatment, the wound measured 4.8cm x 2.0cm x 0.1cm with loosening slough (see Figure b). After an additional 3 weeks, the wound measured 3.5cm x 1.5cm x 0.1cm, and the patient was discharged with hydrogel dressing (see Figure c). The wound was totally healed 1 week later.



Conclusions

Hydroconductive dressings were used effectively on a variety of wounds that failed to heal initially with other topical therapies. This is a versatile first-line product for use on acute dehisced surgical wounds.

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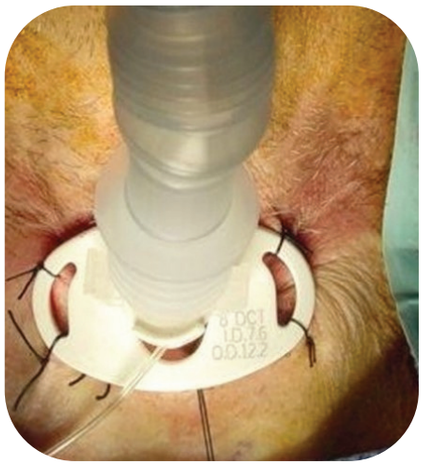
Drawtex® Tracheostomy Dressing

Management of Tracheostomies: A Successful Journey to a New Prevention Protocol, Daphne Hodges BScN, RN, CWOCN

The Drawtex® Tracheostomy Dressing has the same three mechanisms of action as the Drawtex® Wound Dressing.

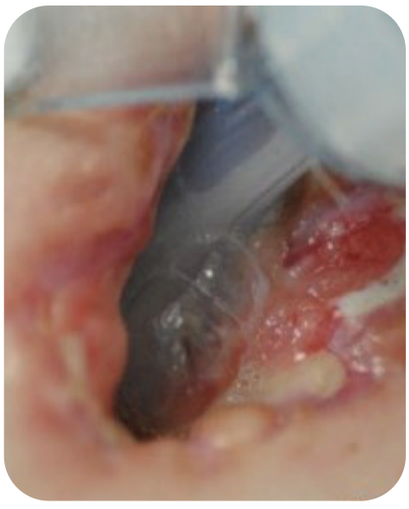
In addition, it is designed to fit neatly around a tracheostomy tube with an interlocking closure, making it easy to use.

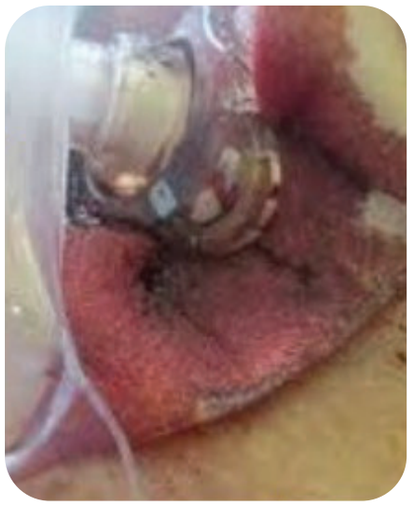
By drawing out and managing the exudate and toxic components that compromise wound healing, Drawtex® Tracheostomy reduces the risk of peristomal maceration.

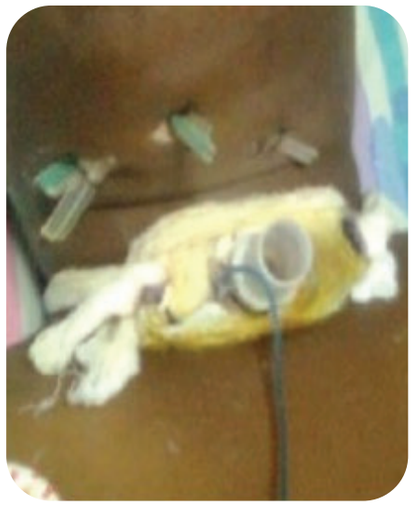


Problem identified

- Management of tracheostomies becomes a challenge soon after tracheostomy surgery, with the tracheostomy faceplates sutured in 4 places to immobilise the device.
- Moisture is one of the many factors that place a patient at risk for developing pressure injuries. With sutures holding the tracheostomy device tight over the clavicle, postoperative swelling, drainage and secretions contribute to the development of pressure injuries under the faceplate.
- Non-woven drain gauze or hydrophilic foam dressings require two to six dressing changes per day due to saturation.
- Even with frequent dressing changes, the skin beneath the tracheostomy can be left in moist conditions with observations of redness and/or pressure injuries.







Non-woven drain gauze

- Inexpensive and absorptive, but has minimal capacity. Made of cotton, polyester or rayon.
- Many tracheostomies have so much drainage that a gauze dressing requires replacement four to six times per day.

Hydrophilic foam

- Foam dressings help maintain a moist wound environment.
- Made of semipermeable polyurethane, foam dressings contain foam polymer with small, open cells that can hold fluids.
- Hydrophilic foams, by design, hold onto fluids to promote moist wound healing. When our foams are removed from the patient, it is often soiled and slimy. Skin under the dressing is macerated and erythematous with skin breakdown.

Drawtex® hydroconductive dressing

- The hydroconductive property of Drawtex® allows it to physically transport fluid away from the dermal or stoma site (such as tracheostomy, GI stoma, G-tubes, etc.), removing negative elements such as microbes, debris/necrotic tissue, biofilm matter, matrix metalloproteinases (MMPs) and wound exudate, which is laden with inflammatory cytokines and harmful proteases. All of these factors may damage the skin surrounding the wound/puncture area.

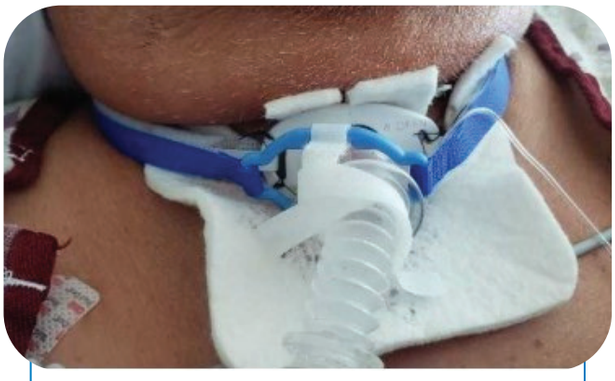
Application

- Hydroconductive dressings were applied in the operating room at the time of tracheostomy creation.

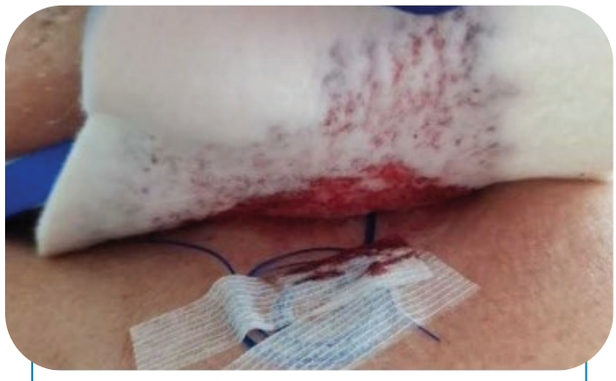
Observation

- Patients were observed over the duration of their entire hospital stay from the time of tracheostomy surgery. During the trial period, patients were evaluated every one to two days to check the integrity of the dressing and the condition of the patient's skin.

Patient Case 5



Drawtex Tracheostomy Dressing Hard at Work

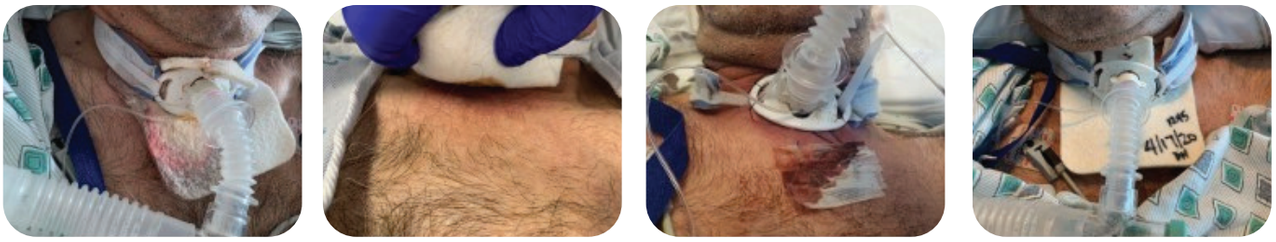


Post-Op Day 1, the dressing is absorbing the drainage and keeping the skin underneath clean, dry and intact

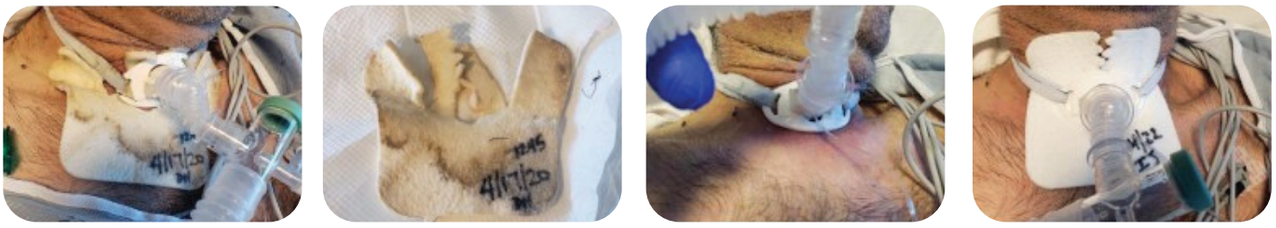
Findings

1. Managing tracheostomies with a hydroconductive dressing at the time of tracheostomy surgery is an effective method of keeping the skin beneath and around a tracheostomy clean, dry and intact.
2. It addresses a condition (moisture) that is unavoidable and that places a patient at risk for pressure injury development and, therefore, is not only very effective for the management of new and existing tracheostomies, but also for prevention of associated pressure injuries.
3. Hydroconductive dressings have helped to minimise staff exposure to patients and freed up more time for them to provide more important life-saving tasks.

Patient Case 6

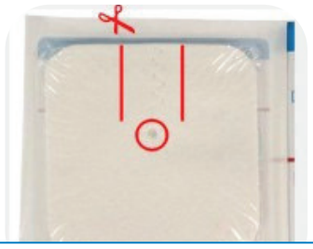


POST-OP DAY 2

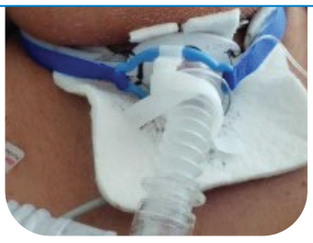


POST-OP DAY 7

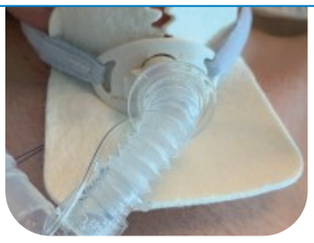
Application Tips



For Tracheostomy with sutures in

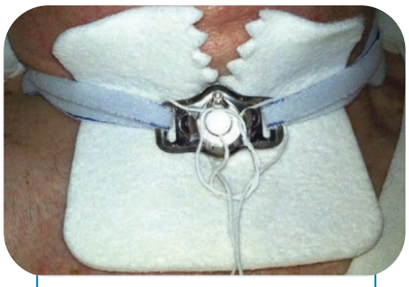


For Tracheostomy with sutures out



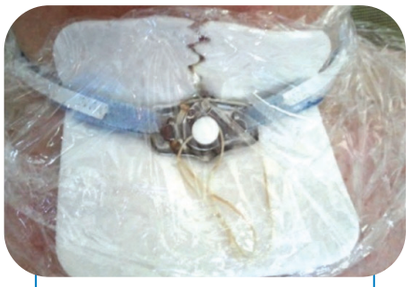
Be sure to tuck the dressing completely under the tracheostomy faceplate to prevent pressure injuries.

Don't forget to date and time your dressing



When the dressing is placed snugly around the tracheostomy tube, the interdigitated teeth will remain open until fitted together.

The dressing can then be completed fitted, and the teeth in the dressing interlock to obtain closure.



It is easy to cover the dressing with plastic for showering without having to change the dressing.

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DRAWTEX MECHANISMS OF ACTION:

- Drawtex® facilitates the removal of wound debris.
- Drawtex® decreases exudate, tissue bacterial levels and harmful MMPs.
- Drawtex® sets the stage for endogenous healing or wound closure procedures.
- Drawtex®'s mechanisms of action differentiate it from other standard dressings.

Catalogue #	Size	Carton Qty.	Shipper Qty.
D0505	5cm x 5cm	10 dressings	10 x 10 = 100
D7575	7,5cm x 7,5cm	10 dressings	10 x 10 = 100
D1010	10cm x 10cm	10 dressings	10 x 10 = 100
D1520	15cm x 20cm	10 dressings	10 x 10 = 100
D2020	20cm x 20cm	10 dressings	10 x 10 = 100
R175	Rolls 7,5cm x 1m	5 rolls	5 x 4 = 20
R101	Rolls 10cm x 1m	5 rolls	5 x 4 = 20
R201	Rolls 20cm x 1m	5 rolls	5 x 4 = 20
SD100	Rolls 10cm x 1,3m	5 rolls	5 x 13 = 65
DT0060	6cm x 6cm Tracheostomy	10 dressings	10 x 10 = 100
DT1010	10cm x 10cm Tracheostomy	10 dressings	10 x 10 = 100
DP0146	Strips 1cm x 46cm	10 strips	10 x 10 = 100
DC5060	300gsm sheet | 50xm x 60cm	5 dressings	5 x 14 = 70
RC2010	300gsm roll | 10cm x 2m	5 rolls	5 x 4 = 20
DWC100	100ml Wound Cleanser	1 bottle	1 x 20 = 20
DWC250	250ml Wound Cleanser	1 bottle	1 x 10 = 10
DWC500	500ml Wound Cleanser	1 bottle	1 x 6 = 6