# Vape Pen Explosion Burn Wound

## Clinical Outcome and Conclusions

- Seven days after debridement and Microlyte® Matrix treatment, the patient reported that the wound felt much better.
- All wounds were dry, healing remarkably well, with epithelium fully intact.
- Second-degree burns usually reepithelialize in 2 to 3 weeks[1], however, after just 1 application of Microlyte Matrix, the patient's wounds were fully reepithelialized in 7 days.

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# Prophylactic Treatment of a Surgical Site Infection in an At-Risk Patient

## Clinical Outcome and Conclusions

- By post-operative day 4, there was no sign of infection.
- By day 14, the wound was well-healed, and sutures were taken out.
- The wound remained healed and patient regained range of motion in her left elbow.
- This patient had multiple risk factors for postoperative surgical site infection including poor glycemic control, poly-microbial infection, and ongoing tobacco abuse.
- Microlyte® Matrix shows promise in the management of surgical wounds in at-risk patient populations.

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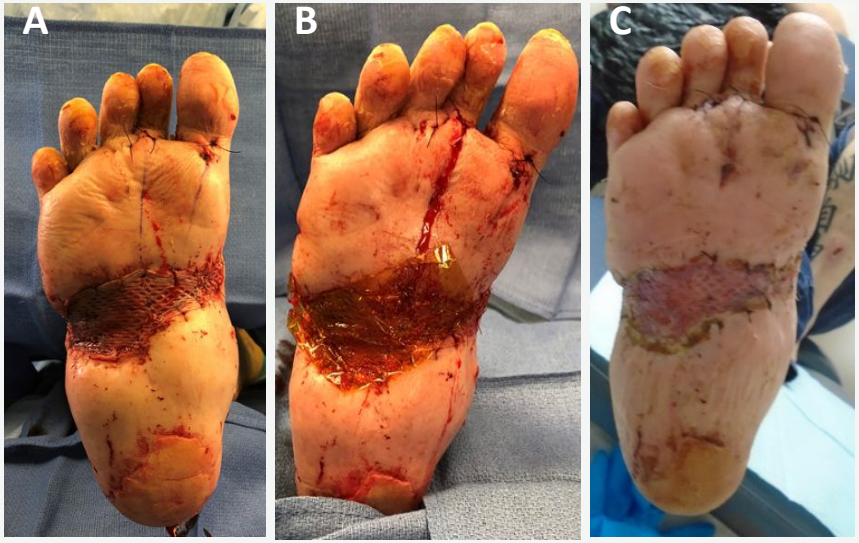
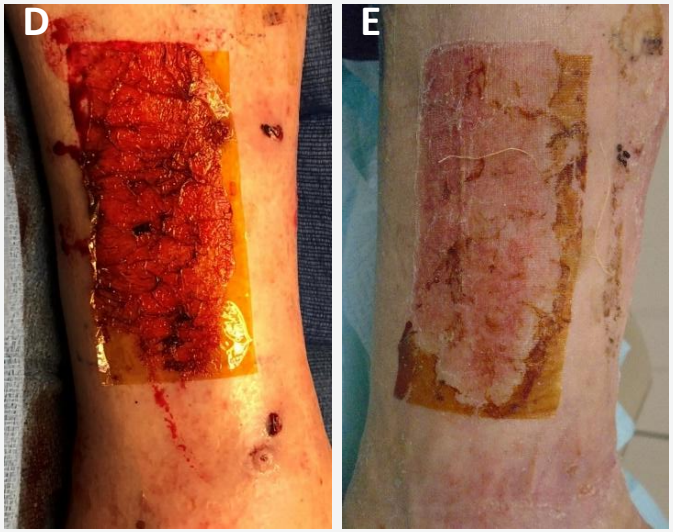
# Surgical Reconstruction and an Autologous Skin Graft using Microlyte® Matrix




## Clinical Outcome and Conclusions

- Sixteen weeks after primary closure, skin flap necrosed and required debridement.
- Wound was debrided weekly for 7 weeks until there was enough granulation tissue.
- To promote re-epithelialization, an autologous skin graft was used, and 5 days later, the recipient site was almost healed, and the donor site was completely healed.
- Microlyte® Surgical was able to accelerate wound closure in a patient with multiple co-morbidities and high risk of infection.
- Additionally, his donor site wound was healed completely after just 5 days of Microlyte® Surgical application.

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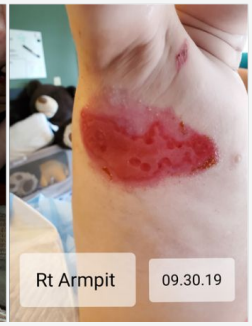
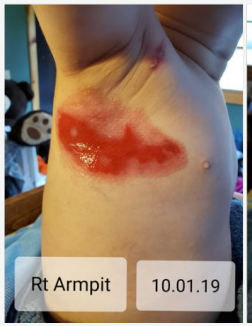
# Treatment of Epidermolysis Bullosa

Day 1


Day 3




Day 4




Day 10


Day 12


## Clinical Outcome and Conclusions

- EB is a rare genetic disease of connective tissue that involves severe skin blistering.
- In addition to enduring daily painful dressing changes, EB patients are at constant risk for infection and sepsis due to multiple open wounds.
- Microlyte® application to a severe full-thickness blister, lead to unprecedented improvement in patient's wounds.
- Importantly, because Microlyte is completely bioresorbable, the matrix did not need to be removed, resulting in decreased pain and increased quality of life.
- Microlyte® shows promise as an adjunct therapy for patients with partial- and full-thickness wounds arising from epidermolysis bullosa.

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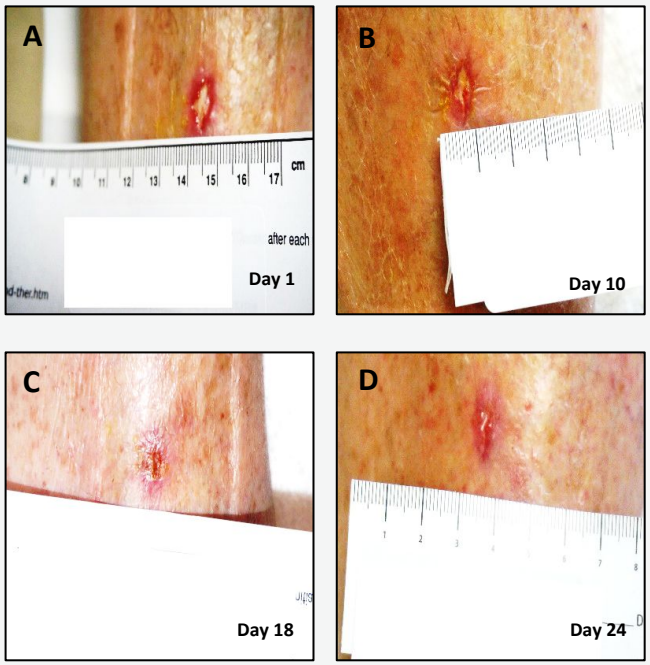
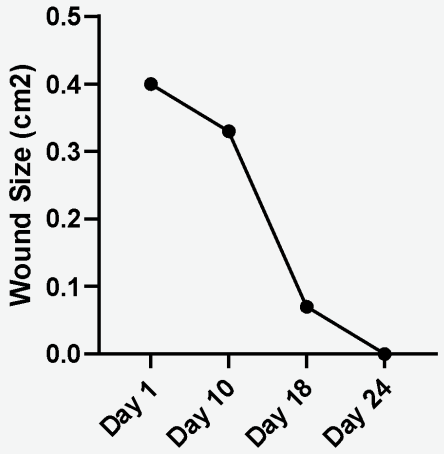
# Mohs Micrographic Surgery




## Clinical Outcome and Conclusions

- Mohs Micrographic Surgery is the sequential removal of cancerous skin layers, until all cancer is removed.
- This procedure takes place over several hours or even days.
- The SSI rate for Mohs is less than 5%, but advanced age increases the morbidity of an open wound significantly.
- Despite the challenge of advanced age and the recalcitrant state of the wound, Microlyte® Surgical was able to jump-start the healing process and completely close the wound after just 24 days.
- Microlyte® Surgical shows promise as a post-operative prophylactic antimicrobial wound matrix for Mohs Micrographic Surgery.

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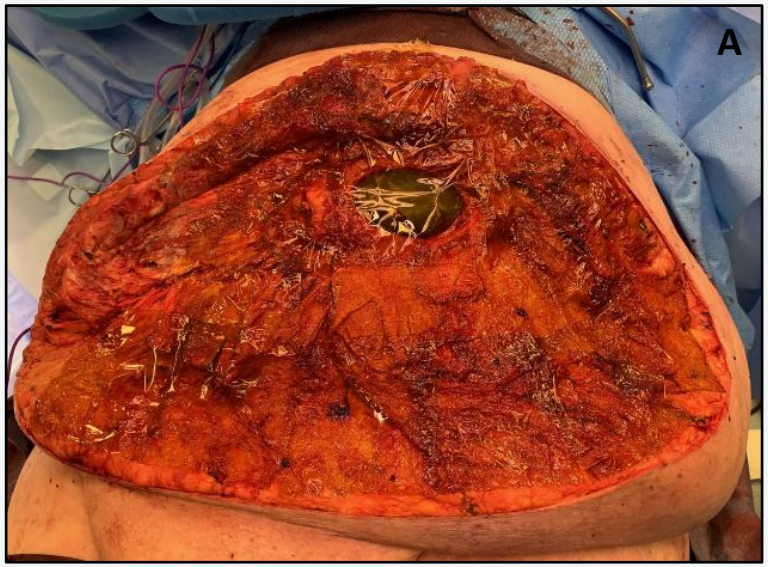
# Treatment of Extensive necrotizing abdominal wall infection





## Clinical Outcome and Conclusions

- After extensive intestinal surgery, 14 pieces of Microlyte Surgical 4”x4” sheets were placed on the wound and left to heal by second intention for approximately 2 weeks.
- At month three, she continued to improve with only lateral aspects of the wound open. NPWT was continued. No drainage or erythema was observed.
- Patient is free of infection and wound is greater than 90% healed with small lateral aspects remaining open which is being treated with Microlyte Surgical.
- Ventral hernia repairs have an SSI rate of up to 23%, and incarcerated hernias are associated with a poor prognosis.
- Necrotizing infections are severe conditions with a high mortality rate due to sepsis and the subsequent multi-organ failure. And bowel resection, as this patient experienced, adds another layer of risk.
- Microlyte Matrix shows promise as an adjunctive therapy when healing by second intention is indicated.

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# Salvage of Limb with Necrotizing Fasciitis


## Clinical Outcome and Conclusions

- After 4 weeks of Microlyte treatment, the patient's wound showed no signs of infection which qualified him for an external fixator.
- One month later, his wound granulated sufficiently over both bone and tendon, which qualified him for Apligraf® treatment.
- Frank graft take was observed, and patient went on to heal completely at 37 weeks.
- Necrotizing fasciitis is a bacterial infection that can lead to limb loss, sepsis and death.
- In this case, we demonstrate that Microlyte 1) reduced bioburden of the wound, 2) promoted granulation over bone and tendon, 3) prevented recurring infection, and 4) prepared wound bed for application of a skin substitute.
- Microlyte® Matrix shows promise in treating severe infections such as necrotizing fasciitis and osteomyelitis.

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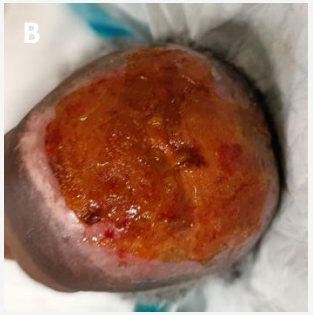
# Treatment for Stalled Radiation Head Wound

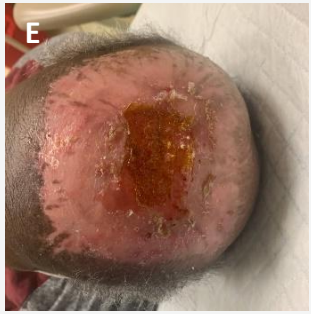

Day 1.a




Day 1.b


Day 4


Day 14




Week 16

## Clinical Outcome and Conclusions

- After just 4 days of Microlyte® treatment, the patient's wound decreased from 11cm x 14cm to 8.5cm x 10.5cm, a 42% reduction.
- On day 14, wound tissue showed increased granulation and decreased exudate.
- At 16 weeks, the wound decreased to 3.5 cm x 4 cm, A 91% reduction from day 1.
- Post-irradiated tissue over a large surface area is notoriously difficult to treat and is prone to infection.
- Microlyte® and ADAPTIC TOUCH™ worked together to jump-start patient's wound-healing process and shows promise in treating difficult-to-treat radiation chronic ulcers.

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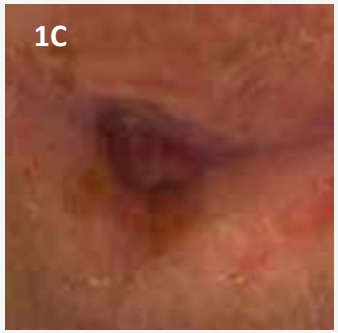
# Treatment for Chronic Contaminated Wound After Total Thyroidectomy








## Clinical Outcome and Conclusions

- One week after initial surgery and Microlyte application, the wound closed ~90%, and nine days later, the wound closed 98%.
- At the 4-week follow-up, the wound was fully closed, the wound remained healed and patient retains only a small scar in the site of the original wound.
- This patient had multiple risk factors for postoperative surgical site infection including poor glycemic control, polymicrobial infection, and ongoing tobacco abuse.
- Faster and more complete closure of a chronically infected wound was achieved by application of Microlyte than was achievable with other failed therapies.

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# Treatment for Contaminated Wound After Pilonidal Cyst Removal






## Clinical Outcome and Conclusions

- After only 1 week and 2 applications of Microlyte, the wound size decreased by 46%.
- Additional weekly treatments with Microlyte in conjunction with NPWT closed the wound by 94% in 3 weeks and 98% in 6 weeks.
- Faster and more complete closure of a chronically wound resulting from surgery was achieved by application of Microlyte and NPWT than was achievable with other failed therapies.

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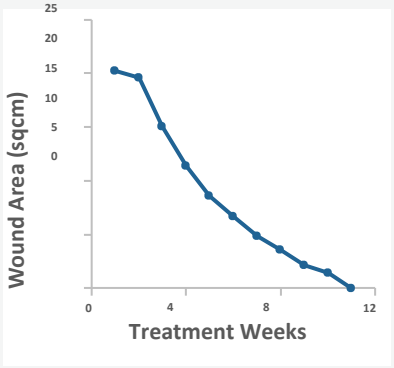
# Treatment for full-thickness non-healing burn wound








## Clinical Outcome and Conclusions

- After a single Microlyte treatment, the wound was reduced in size by 16%.
- Additional weekly treatments with Microlyte resulted in steady closure of the previously-stalled wound, until complete closure was achieved by the 11-week evaluation.
- Faster and more complete closure of a chronical wound resulting from full-thickness burn trauma was achieved by application of Microlyte than was achievable with other failed therapies.
- Microlyte applied weekly was associated with a positive outcome.
- This patient avoided a costly skin-grafting procedure over a full-thickness burn wound, including an extended hospital stay and a potentially painful donor site.

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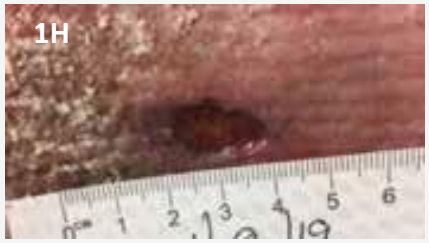
# Treatment for Stalled Venous Stasis Ulcer




## Clinical Outcome and Conclusions

- A 36-month old venous statis ulcer was treated with Microlyte and a novel compression garment.
- Using compression alone, the wound responded favorably. The addition of Microlyte, however, appeared to have a synergistic effect and the ulcer closed rapidly over a four-month period.
- After 5 months of combined treatment with Microlyte and a compression stockinet, the venous stasis ulcer now 99.9% closed with islands of epithelium in the base.
- Faster and more complete closure of a venous stasis ulcer was achieved by application of Microlyte in conjunction with compression therapy using Edemawear® than was achievable with other failed therapies.

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# Treatment of Diabetic Foot Ulcers with Microlyte® Matrix


## Clinical Outcome and Conclusions

- In a study evaluating the effectiveness of Microlyte Matrix in treating 8 diabetic foot ulcers, researchers found that Microlyte Matrix decreased both costs and time to heal compared to standard-of-care treatments.
- An estimated $132,000 was spent to unsuccessfully treat these wounds using standard of care treatments over a period of approximately 53 weeks.
- After Microlyte Matrix treatment for an average of 5 weeks, approximately $12,000 was spent to treat all 8 DFU and resulted in average closure of almost 80%.
- In addition to improving patient outcomes and quality of life, faster healing of DFUs will allow clinics to generate higher revenues through increased patient volume while decreasing the risk for nosocomial infections in the at-risk diabetic patient population.

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