# Rebalancing the Electrolytes from Negative to Neutral With Non-Cytotoxic Cations and Reduced pH

Charles Andersen, MD, FACS, FSVS, MAPWCA; Robert G. Frykberg, DPM, MPH

### AgFresh® – Moleculight Cases

The loss of the bioelectric balance in the wound bed leads to unresolved chronic wounds with inherent biofilms and bacterial colonization. The chronic wound bed is characterized as a negatively charged (anionic) environment. The negatively charged molecules include the membranes of bacteria, biofilms and the anchoring mechanism of the biofilm to the wound bed. In order to remove anionic obstacles to wound healing, a rebalancing needs to take place with the introduction of positively charged (cationic) nano-particle minerals that bind and inactivate anions through an electron attraction process.

## **McCord System**

- Fentonite® a combination of cationic nano-particle minerals releases a unique balance of cations that have been proven to bind with the anionic biofilms and pathogens causing the loss of their ability to defend themselves due to their permanent membrane deconstruction.
- The following cases represent results utilizing the McCord System with Fentonite®

#### Clinic Protocol for McCord System

- Clean wound with non-ionic cleaner
- Baseline Moleculight scan
- Debride and cleanse with attempts to remove bacteria if possible (Only clean with non-ionic solution)
- Repeat bacterial scan
- Hydrate wound with BioCleanse™
- Apply BioRelese®
- Apply AGFresh®
- Apply secondary dressing and compression or off-loading if appropriate
- Change dressing twice per week
- With dressing changes clean with non-ionic cleaner and debride as necessary
- Scan for bacteria pre- and post-debridement

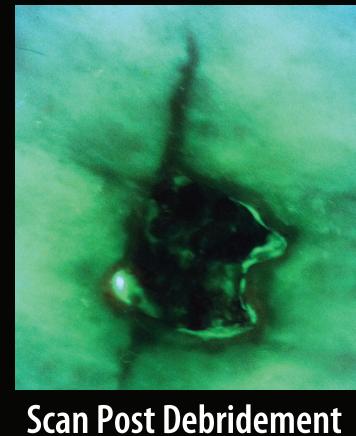
- 61 y/o male s/p revision hip arthroplasty performed at another hospital on 7/09/2023. He developed a post operative surgical site complication managed at the other hospital with Santyl®
- Patient was referred to the wound care clinic at MAMC on 9/07/2023 because of failure to heal for 2 months. On evaluation he had a chronic wound with fibrotic borders and slough in bottom.
- Wound debrided

PATIENT - JW

- Treated from 9/07/2025 10/10/2025 with Blastx. Hydrofera Blue Transfer and Mepilex border dressing. Patient changing his dressing every two to three days. Minimal change in size.
- McCord System started on 10/10/2023. Patient instructed on dressing changes at home.
- McCord System from 10/10/2023 11/21/2023 with significant improvement in depth and size

## JW – Pre-Treatment





Initial exam had slough in base with a positive bacterial scan. Wound debrided with removal of slough and bacteria. McCord system initiated on 10/10/2023

# **JW – 28 Days**







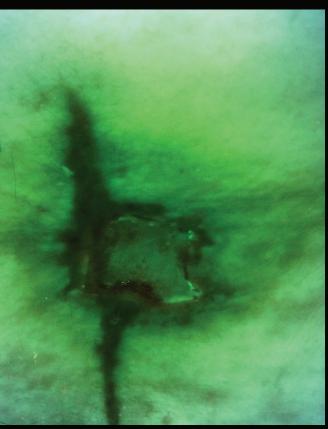
Wound flush with the skin

Scan pre debridement

Scan post debridement

# JW – 6 Days

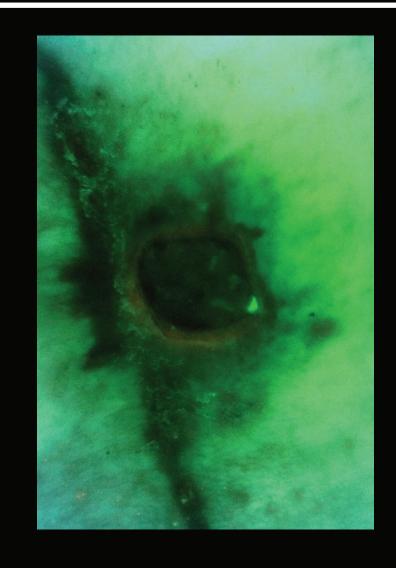




Wound is more superficial with granulation tissue and no bacteria on bacterial scan

# **JW – 36 Days**





- Patient failed to progress significantly on advanced wound care
- Since initiation of the McCord system the wound has filled in from the bottom and is decreasing in size

#### **INVESTIGATOR**



Dr. Charles Andersen; MD, FACS, FSVS, MAPWCA **Chief, Wound Care Service MAMC** Clinical Professor; UW, USUHS