**Electric Bandage**

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Wounds that haven’t healed in years finally healed. All made possible by Vomaris Innovations. Vomaris has developed PROCELLERA an electrical dressing that when moistened becomes an antimicrobial barricade against infection.

PROCELLERA is a patented dressing that can be applied directly to either acute or chronic wounds. It is the first FDA approved wound dressing which emulates the natural electrical energy found in healthy tissue. The dressing uses Prosit technology, which is a pattern of micro batteries. When moistened the batteries become activated and emit the same energy levels the body uses to heal wounds. Wounds usually heal is from the edges where the energy level is the highest inward. PROCELLERA continually directs the energy across the whole surface of the wound speeding up the healing time of the wound. This speeds up the healing by signaling the body to start repairing the whole wound instead of just the edges of the wound.

The prescription dressing is used for pressure ulcers, venous ulcers, diabetic ulcers, burns, surgical incisions, and graft sites of either donor or recipient. The prescription dressing got FDA approval in 2006. The over the counter dressing is used for minor scrapes, irritations, and abrasions. The over the counter dressing got FDA approval in 2008. In studies wounds healed faster and patients experience less trauma, pain and reduced inflammation.

The dressing is a single layered dressing consisting of woven absorbent fabric containing elemental silver and zinc, held in position on the polyester with a biocompatible binder.

Studies show that cells move along low current lines in the presence of a wound. Fibroblasts, keratinocytes, neutrophils, and mast cells are some of the cells that migrate to wounded areas on low currents. The addition of a micro-voltage produced by the dressing enhances this process.

Pathogenic cells like bacteria, fungi and viruses also have electrical activity. An external electric current has been found to be lethal to these electrically charged microbes.

Antimicrobial activity is enhanced by the synergistic activities of the bioelectric environment and the element silver used in the delivery system. Silver is a potent antimicrobial that, on a cellular level, attacks sites within microbial cells to stop critical physiological functions from cell-wall synthesis and membrane transport to protein function. Along with DNA/RNA synthesis and translation.

Healing wounds with standard dressings costs approximately $1000 on average per wound per patient. But now with the Prosit technology the PROCELLERA dressing cuts cost by an average of 96%, making the cost approximately $140 per patient.

Sources:

www.accessdata.fda.gov.  

"Prollecera-About Prosit Technology". Vomaris.  
<www.procellera.com/about/prosit>.