JumpStart®

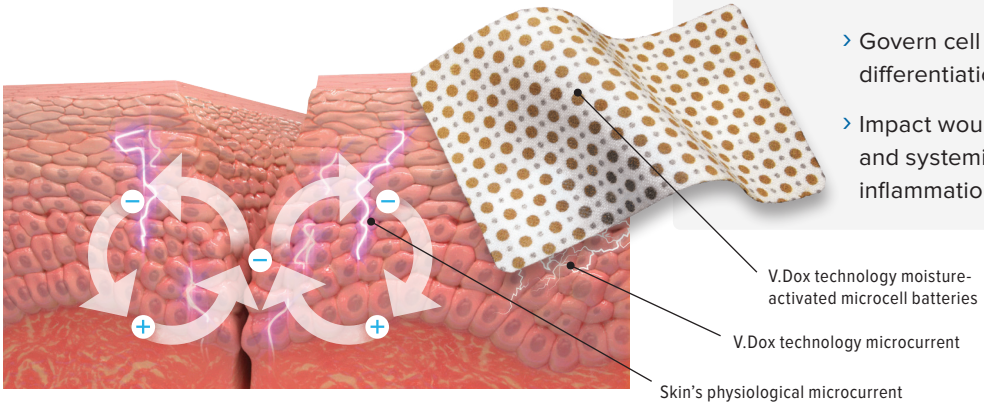
Advanced Microcurrent Healing™

Electric fields exist naturally in the skin, creating surface energy potential (voltage) known as transepithelial potential (TEP).

Electricity Is Essential to Wound-Healing

- TEP is disrupted when the skin is wounded.[1-3]
- TEP disruption induces an electric field directed toward the middle of a wound.[3]
- This initiates cell migration and re-epithelialization.[1-3]
- Microcurrents are created at the edges of healthy skin (called the "current of injury") and extend ~1 mm into a wound, healing it from the outside edges.[1,2]
- TEP is restored once skin regeneration is complete.[4]

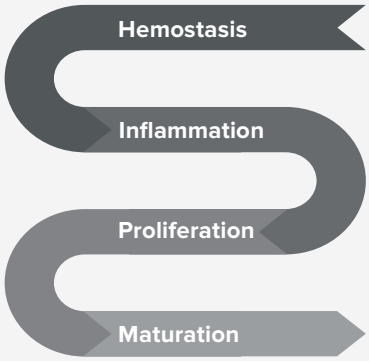
	Voltage	Microcurrents
Intact skin[1-3]	0.010-0.060 V	—
Wounded skin[3,5]	0.1-0.2 V mm^{-1}	10-100 µA cm^{-2}
JumpStart® antimicrobial dressing powered by V.Dox™ technology[5,6]	0.2-1.0 V	10-50 µA



Note: V.Dox technology powers the only antimicrobial wound dressing designed to mimic the skin's electrical energy, operating within the same physiological range as the skin's current of injury at a depth of ~3mm.[8,9]

Electrical fields regulate fundamental cell behavior throughout the human body[7,8]

Wound-Healing Cascade



Electrical fields:

- Govern cell proliferation, migration, and differentiation
- Impact wound healing at the cellular and systemic levels during hemostasis, inflammation, proliferation, and maturation

References

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