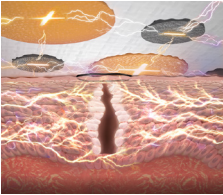


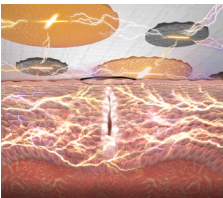
# Preoperative Application of JumpStart<sup>®</sup> Antibacterial Wound Dressing for Shoulder Replacement Surgery

**JumpStart<sup>®</sup>**  
ADVANCED MICROCURRENT HEALING<sup>™</sup>

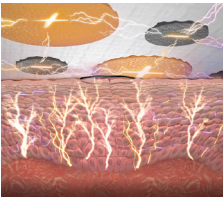
## Powered by Electricity



Electricity is essential to wound healing. Skin has natural electric fields that create energy. These electric fields change when the skin is cut or wounded, leading to cell migration and re-epithelialization, which are key components of healing.<sup>1</sup>



JumpStart is a microcurrent dressing designed to mimic the skin's natural electric fields, which may reduce the risk of infection while supporting the body's natural healing process.<sup>2-5</sup>



When applied preoperatively, JumpStart antibacterial dressings may reduce the chance of infection that can be associated with implant placement and may be effective in reducing the risk of surgical site infection (SSI).

## Why is surgical site infection (SSI) prevention so important?

Acquiring an SSI leads to an average added hospitalization of

**9.7 days<sup>6</sup>**

**50%**

of SSIs are preventable<sup>7-9</sup>

## Why Use JumpStart Antibacterial Dressing Preoperatively?

- JumpStart dressing kills a broad spectrum of harmful pathogens that can cause infections, including multidrug-resistant<sup>3</sup> and biofilm-forming bacteria<sup>2-4,10</sup>
- JumpStart dressing has been shown to be equally as effective in preventing the growth of bacteria as traditional skin preparation products<sup>10</sup>
- When used both preoperatively<sup>11,12</sup> and postoperatively,<sup>2-5</sup> JumpStart dressing can provide enhanced antibacterial protection to incision sites

When a microcurrent dressing was applied preoperatively for patients with existing bacteria:



**60%**

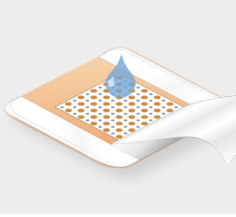
showed no bacterial growth at the time of surgery<sup>12</sup>



# Dressing Application

## Pre-application Steps

1. Cleanse area with an appropriate cleanser; your doctor can advise on what to use.
2. Moisten the dotted JumpStart® pad with water or a thin, even layer of hydrogel. Apply immediately after moistening by following the application instructions.



Remove center liner and moisten dotted pad with sterile saline, water, or water-based hydrogel.



Apply, dots down, onto skin surface.



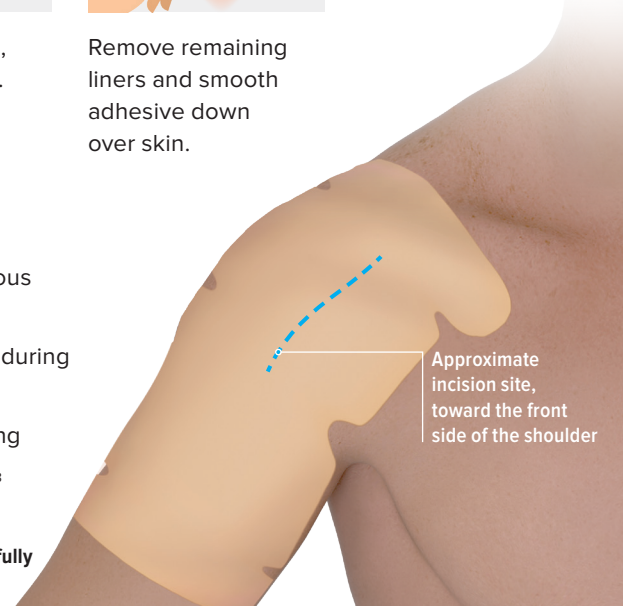
Remove remaining liners and smooth adhesive down over skin.

**Note: Do not remove the dressing once it has been applied as it will only adhere one time.**

## Designed for All Patients

- Wide array of shapes and sizes to fit various incision sites
- Stays in place and moves with you, even during range-of-motion exercises
- Water-resistant and allows for light bathing
- Up to 48-hour preoperative wear time<sup>12,13</sup> (or as instructed by your physician)<sup>10,12</sup>

**Note: If you have a skin reaction to the dressing, carefully remove it and contact your surgeon's office.**



Approximate incision site, toward the front side of the shoulder

## References

1. Banerjee J, Das Ghatak P, Roy S, et al. Silver-zinc redox-coupled electrocutaneous wound dressing disrupts bacterial biofilm. *PLoS One*. 2015;10(3):e0119531. doi:10.1371/journal.pone.0119531 | 2. Kim H, Makin I, Skiba J. Antibacterial efficacy testing of a bioelectric wound dressing against clinical wound pathogens. *Open Microbiol J*. 2014;8:15-21. doi:10.2174/1874285801408010015 | 3. Kim H, Izadjoo MJ. Antibiofilm efficacy evaluation of a bioelectric dressing in mono- and multi-species biofilms. *J Wound Care*. 2015;24(Suppl 2):S10-S14. doi:10.12968/jowc.2015.24.Sup2.S10 | 4. Zhao M. Electrical fields in wound healing—an overriding signal that directs cell migration. *Semin Cell Dev Biol*. 2009;20(6):674-682. doi:10.1016/j.semcdb.2008.12.015 | 5. Banerjee J, Das Ghatak P, Roy S, et al. Improvement of human keratinocyte migration by a redox active bioelectric dressing. *PLoS One*. 2014;9(3):e89239. doi:10.1371/journal.pone.0089239 | 6. Scott RD. The direct medical costs of healthcare-associated infection in U.S. hospitals and the benefits of prevention. Centers for Disease Control and Prevention. Accessed May 2, 2023. [https://www.cdc.gov/hai/pdfs/hai/scott\\_costpaper.pdf](https://www.cdc.gov/hai/pdfs/hai/scott_costpaper.pdf) | 7. Keely Boyle K, Rachala S, Nodzo SR. Centers for Disease Control and Prevention 2017 guidelines for prevention of surgical site infections: review and relevant recommendations. *Curr Rev Musculoskelet Med*. 2018;11(3):357-369. doi:10.1007/s12178-018-9498-8 | 8. WHO global guidelines for the prevention of surgical site infection. World Health Organization. Accessed July 12, 2021. <https://www.who.int/gpsc/SSI-outline.pdf> | 9. Surveillance of surgical site infections in Europe 2010-2011. European Centre for Disease Prevention and Control. Accessed July 12, 2021. <https://www.ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/SSI-in-europe-2010-2011.pdf> | 10. Cooke CL, Greene RS, van Eck CF, Uquillas C, Limpisvasti O. Bioelectric silver-zinc dressing equally effective to chlorhexidine in reducing skin bacterial load in healthy volunteers. *Arthroscopy*. 2018;34(10):2886-2891. doi:10.1016/j.arthro.2018.05.046 | 11. Barki K, Das A, Dixith S, et al. Electric field based dressing disrupts mixed species bacterial biofilm infection and restores functional wound healing. *Ann Surg*. 2019;269(4):756-766. doi:10.1097/SLA.0000000000002504.41 | 12. Miller BS, Olszewski AM, Bedi A. A microcurrent dressing reduces *Cutibacterium acnes* colonization in patients undergoing shoulder arthroplasty or arthroscopy: a prospective case series. *HSS J*. 2023;19(1):92-96. doi:10.1177/15563316221100989