

# SilverStream

Solution

SEAMLESS CARE, ANYWHERE  
Elevating excellence in Hospital and Homecare



ACCELERATING  
WOUND HEALING

► [WWW.SILVERSTREAMMED.COM](http://WWW.SILVERSTREAMMED.COM)

STERILE

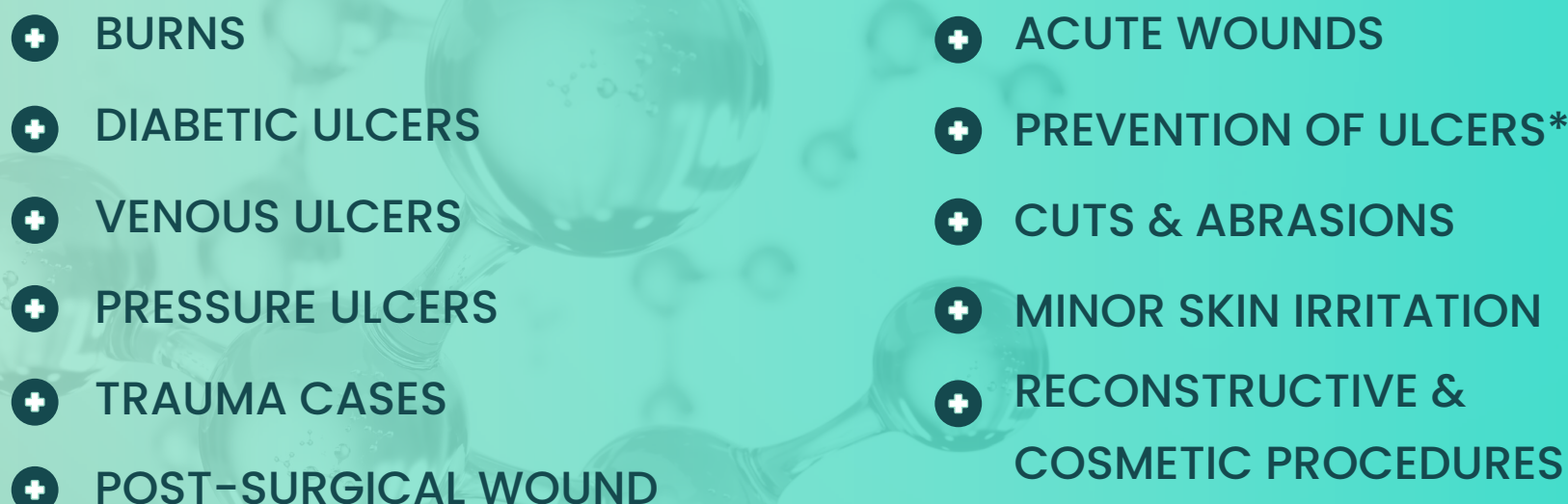
Medical Device



# SilverStream® Solution

# A Superior Wound Management Solution

SilverStream® is a patented wound management synergetic solution that chains the complete wound treatment cycle and accelerates the healing process of acute, burns, hard-to-treat wounds, and chronic non-healing wounds

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- ➕ BURNS
  - ➕ DIABETIC ULCERS
  - ➕ VENOUS ULCERS
  - ➕ PRESSURE ULCERS
  - ➕ TRAUMA CASES
  - ➕ POST-SURGICAL WOUND
  - ➕ ACUTE WOUNDS
  - ➕ PREVENTION OF ULCERS\*
  - ➕ CUTS & ABRASIONS
  - ➕ MINOR SKIN IRRITATION
  - ➕ RECONSTRUCTIVE & COSMETIC PROCEDURES

**01** SilverStream®, a buffered solution, with a pleasant odor is a highly effective wound management formulation that cleans, moisturizes, soothes, and accelerates the healing process of acute, burns, hard-to-treat wounds, and chronic non-healing wounds.

**02** SilverStream® is a patented wound management solution, combining a low concentration of silver ions (0.01%), menthol, and glycerol plus a surfactant, dissolved in a hypertonic solution.

**03** SilverStream's unique formulation ensures the efficient eradication of biofilm, a well-prepared wound bed, and provides a highly potent environment for wound healing. May contribute to a potential reduction in Antibiotic usage.

 SilverStream's proprietary mechanism of action reduces inflammation and promotes granulation tissue.

**05** SilverStream' specialized synergistic combination of silver ions and menthol reduces the concentration level of the silver ions – to well below the cytotoxic threshold. The high concentration of the hygroscopic glycerol provides hydrogel effects.

- Destroys Biofilm
  - Protected from Microbial Contamination
  - Reduces Inflammation
  - Reduces High Levels of MMPS\*\*
  - Promotes Granulation Tissue
  - Promotes Moist Wound/Burn
  - Prevents Maceration
  - Accelerates Wound Healing
  - Reduces Pain
  - Eliminates Odor
  - Penetrates Deeper into the Wound Surface
  - Prevents and treats post-surgical SSI\*\*\*
  - No Coloring, No Staining, No Argyria
  - No Local Irritation or Allergic Reactions
  - Proven Safety: Non toxic, Non cytotoxic
  - Reduces Treatment Period

## References:

References:

(1) SilverStream's Anti-Biofilm Effectiveness. Evaluation of an Ionic Silver Solution against Dual Species In-Vitro Wound Biofilms. Center for Biofilm Engineering, Montana CBE – USA

(2) Thomas E. Use of an Ionic Silver Solution for Wound Cleansing and Reduction in Biomaterial. St. Vincent Hospital, Erie, PA. USA

(2) Thomas E. Use of an Ionic Silver Solution for Wound Cleansing and Reduction in Biomaterial. St. Vincent Hospital, Erie, PA, USA  
(3) Kumar, A., Bajaj, S. S., & Bajaj, J. K. (2022). "A Comparative Study of Efficacy of Silver Stream versus Povidone Iodine in Healing Diabetic Ulcers." *International Surgery Journal*, 9(6), Page Range.  
DOI: <https://doi.org/10.18203/2349-2902.isj20221407>

DOI: <https://doi.org/10.18203/2349-2902.isj20221407>

(4) Adam Landsman. SilverStream® Wound Optimizing Rinse for the Treatment of Diabetic Foot Ulcers. Cambridge Health Alliance, and Harvard Medical School, Cambridge, MA

(5) Weitman Cernica, C. (2021). "Preventing Ulcers in Bullous Erysipelas: Clinical Study on the Efficacy of Topical SilverStream Treatment, Including Post-Hospitalization Supervision."

(5) Weltman Cernica, S. (2021). Preventing Ulcers in Bullous Erysipelas: Clinical Study on the Dermatology Department, Hadassah Hebrew University Medical Center, Jerusalem, Israel

\* Bullous Erysipelas and Pos

- \* Bullous Erysipelas and Post
- \*\* Matrix Metalloproteinases

- \*\* Matrix Metalloproteinases
- \*\*\* SSI- Surgical Site Infection



# SilverStream® in Action



## Wound Condition before SilverStream:

Age: 80-year-old patient  
Diabetes mellitus.  
Left foot amputation plus infection.  
Complications from diabetes,  
blood flow on the wound bed hampered,  
and tested positive on culture.

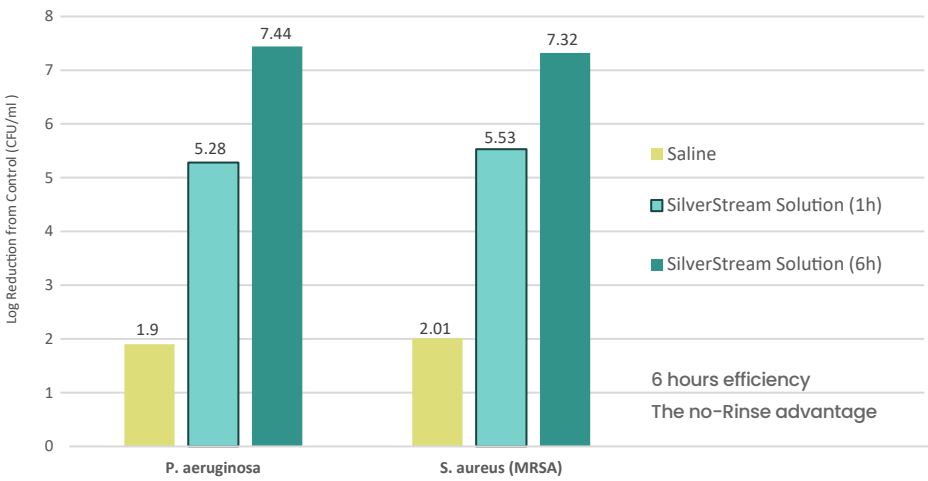
## SilverStream Treatment :

10 ml SilverStream is used per treatment  
every day for 12 days. No debridement  
was performed except SilverStream.  
No antibiotic treatment.  
No adverse event, irritation or discomfort.  
Complete elimination of infection  
observed in 5 days. Restoration of blood  
flow in the wound bed was seen.  
Wound size reduced by >60% in 14 days.  
Complete wound closure after 6 weeks.

## The Center for Biofilm Engineering at Montana State University demonstrated SilverStream’s strong Anti-Biofilm effect

Evaluation of an Ionic Silver Solution conducted at the  
Montana State University Center for Biofilm Engineering

Treatment of Biofilm with SilverStream compare to Saline



Bacterial log reduction in biofilm: after 1 hour & 6 hours of treatment of biofilm  
with SilverStream compare to Saline

Experiments conducted by Nelson Labs (USA) and others demonstrated broad-spectrum antimicrobial activity.  
The microorganisms listed in the tables represent typical pathogenic strains commonly found in wound cultures.

SilverStream Efficacy	Bactericidal and Bacteriostatic activity	Tests Performed
Escherichia coli	✓	MIC/MBC/Microbial limit <USP 61>/ Zone of inhibition <USP 81>/ Antimicrobial preservative <USP 51>
Staphylococcus aureus (MRSA)	✓	MIC/MBC/Microbial limit <USP 61>/ Zone of inhibition <USP 81>/ Antimicrobial preservative <USP 51>
Staphylococcus epidermidis	✓	MIC & MBC
Klebsiella pneumoniae	✓	MIC & MBC
Pseudomonas aeruginosa	✓	Microbial limit <USP 61>/ Antimicrobial preservative <USP 51>

SilverStream Efficacy	Fungicidal and Fungistatic activity	Tests Performed
Candida albicans	✓	Antimicrobial preservative <USP 51>
Aspergillus niger	✓	Antimicrobial preservative <USP 51>
Trichophyton rubrum	✓	An in-vitro study conducted by an internal laboratory aimed to screen for fungicidal activity against a pathogenic fungus causing skin infections <sup>6</sup>
Microsporum canis	✓	An in-vitro study conducted by an internal laboratory aimed to screen for fungicidal activity against a pathogenic fungus causing skin infections <sup>6</sup>

## Expert Opinion

**Chausha Weitman Cernica,**  
MA, R.N  
Wound-care Coordinator  
Hadassah Hebrew University  
Medical Center, Jerusalem, Israel

SilverStream is an effective  
solution for chronic ulcers  
preventing in case of Bullous  
Erysipelas. The solution is  
Time Saving & Cost Effective.

A Study Of Silver Nitrate Solution  
In Dressing Of Diabetic Foot Ulcer  
Bipin Kishore Bara , Siba Prashad  
Pattanayak, Tapan Kumar Malla,  
Manoj Kumar Behera, Binoy  
Kumar Maharana

SilverStream enhances  
granulation tissue formation,  
reduces bacterial load,  
increases skin graft success  
rate and shortens hospital  
stay, for DFU patients

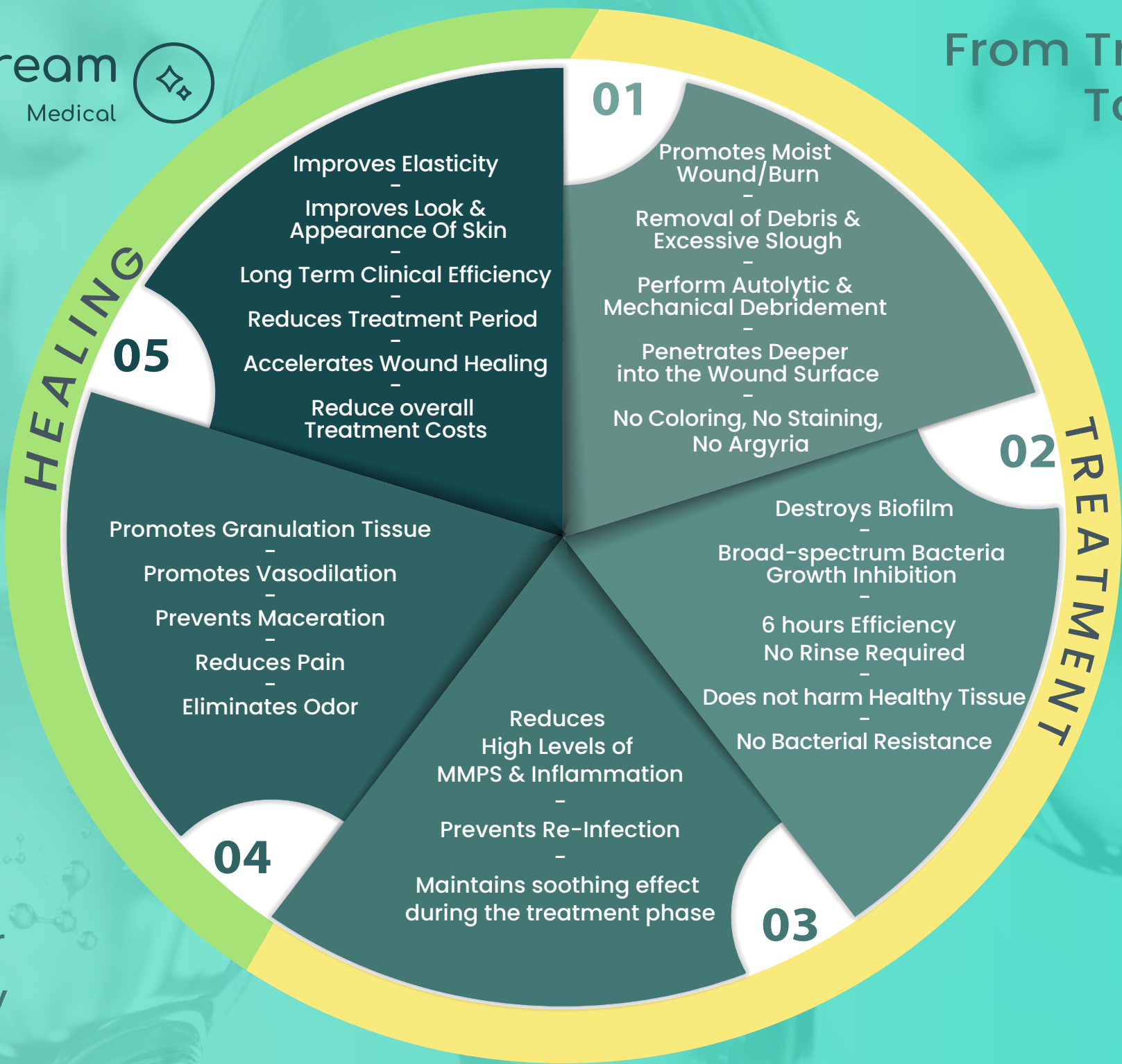
**Ido Mizrahi, MD,**  
Noemie Nalbandian, RN MPH  
Department of General Surgery  
Hadassah Hebrew University  
Medical Center, Mount Scopus,  
Jerusalem, Israel

Silver stream solution offers  
rapid Secondary Wound  
Healing after pilonidal  
disease surgery. Cosmetic  
results are excellent with  
no recurrence.

**Adam Landsman, DPM, PhD**  
Assistant Professor of Surgery,  
Harvard Medical School  
Division of Podiatric Surgery,  
Cambridge Health Alliance

SilverStream is very useful for  
normalizing difficult wounds.  
The combination of ingredients  
has resulted in a dramatic  
improvement in wounds  
that showed essentially no  
signs of progress

(6) Bioassay of fungicidal activity of Silverstream : This in-vitro study conducted by an internal laboratory focused on screening for fungicidal activity a pathogenic fungus causing skin infections



The Power  
of Synergy

SilverStream® has been authorized as a medical device by the US FDA (510K) for the management and moisturizing of wounds such as stage I-IV Pressure ulcers, Stasis ulcers, Diabetic foot ulcers, Post-surgical wounds, First and Second degree burns, Cuts, Abrasions and Minor skin irritation.

INGREDIENT	ACTION	DESCRIPTION
Ag NO3	Preservative & Anti-microbial agent	Ionic silver kills on contact and inhibits the growth of bacteria, yeast, and fungi
Menthol	Penetration enhancer, Growth promoter, Pain reliever, Odor fighter	Enhances ionic silver antimicrobial activities and fights wound odor, Promotes granulation tissue growth by vasodilatation
Tween 20	Surfactant and Detergent	Enhances solution penetration into the biofilm Acts as wound cleansing detergent
Glycerol	A hypertonic aqueous solution that prevents macerations and Soothing agent	Aids mechanical removal of exudates and microorganisms Creates Hydrogel function by absorbing water molecules
Tris Buffer	Buffered neutral pH	Biocompatible to physiological pH

INGREDIENTS

Ingredients include water for injection (WFI), glycerol (glycerin), sorbitan monolaurate (Tween-20), TRIS, menthol and silver nitrate 0.01% (w/v).

SilverStream Solution® is available in 100mL, 250mL, 500mL bottles.

Non toxic, Non cytotoxic, Non Staining

Steroid-Free, Antibiotic-Free

www.silverstreammed.com

