

## **Soothing ...**

Documented Pain Relief

## **Significant Clinical Improvement ...**

Demonstrated in Randomized Controlled Clinical Study

## **Savings ...**

Time, Materials and Resources



**XCell**<sup>®</sup>  
Cellulose Wound Dressing

**XCell**<sup>®</sup>  
Cellulose Wound Dressing  
**Antimicrobial**

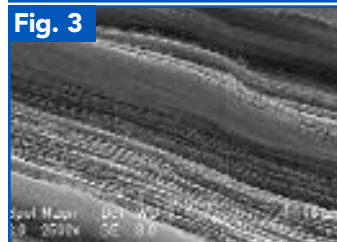
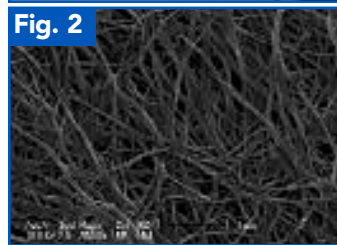
**Superior Clinical and  
Economic Results in  
The Management of  
Chronic Wounds**

# XCell<sup>®</sup> Biosynthesized Cellulose A Unique Structure Yielding Unique Clinical Benefits

- Active Fluid Management Capability
- Non-Adherent / Superb Handling / Structurally Stable
- Microenvironment Management System
- Antimicrobial Version Also Available

## Biosynthesized Cellulose Technology

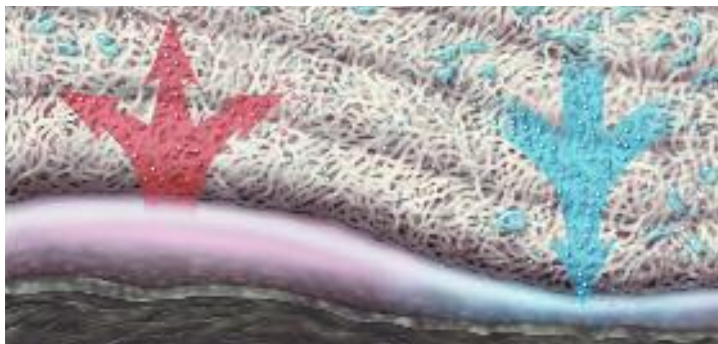
XCell Dressings are products of a fermentation process using a proprietary strain of the microbe, *Acetobacter xylinum*. Figure 1 shows the *A. xylinum* expressing a single fibril of biosynthesized cellulose. These fibrils are 200 times finer than cotton, rendering the material with extraordinary surface area. In Figure 2, microbes “weave” a mesh structure of fibrils that furthers the moisture handling capabilities and enhances tensile strength. In Figure 3, the biocellulose material is naturally formed into micro-layers providing the unique structure and performance described below.



\* Reproduced with permission

## Unique Structure

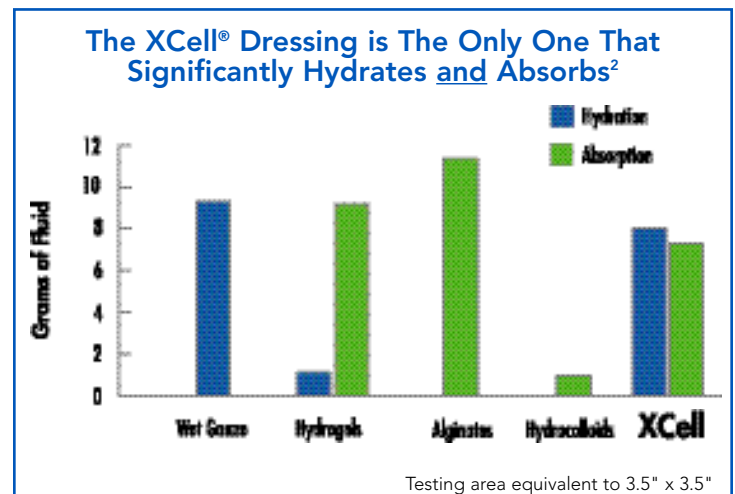
Because of their high surface area, the micro-fibers that constitute XCell Dressings provide active fluid management. This means that XCell both hydrates and /or absorbs fluid depending upon the moisture content present within the wound. The drawing below illustrates the fluid mechanics within XCell as it regulates the moisture content within the wound.



Artist's rendering of XCell dressing in cross section, showing its Hydro-Balanced Layers<sup>SM</sup> and bi-directional moisture-handling properties in action. Magnification approximately 2500X.

## Dual Functionality

Compared to other popular wound dressing types, XCell is the only dressing with significant dual functionality of hydration and absorption. This capability enables XCell Dressing to be used throughout the various phases of wound healing.

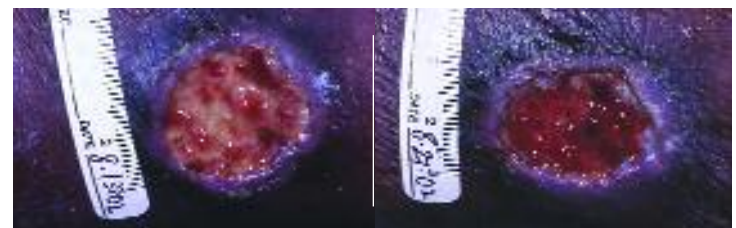


## Non-Adherent with Superb Handling

Since the space between the micro-fibers (measured in nanometers) is so small, delicate granulation tissue does not adhere to XCell. XCell is highly conformable, enabling accurate placement within the contours of the wound bed. XCell is structurally stable. It will not turn to gel or change configuration when wet, so there is no residue to clean out of the wound.

## Microenvironment Management System

Everywhere that XCell is in contact with the wound surface, the dressing is managing the moisture content. If hydration is required in one area while absorption is required in another area of the same wound, XCell handles both simultaneously.



Venous ulcer with fibrin slough (Initial Evaluation)

After 2 weeks with XCell and compression. Full granulation and significant epithelial migration. Fibrin removed, exudate decreased to moderate level.

*Hydrates and Absorbs*

*Pain Relief*

*Microenvironment Management*

*Autolytic Debridement*

**XCell**<sup>®</sup>  
Cellulose Wound Dressing



## Appropriate for Multiple Wound Types

**XCell Dressing is indicated  
for use on:**

- Partial – to full – thickness arterial, venous, diabetic, and pressure ulcers
- Post – operative surgical wounds, donor sites, and dermal lesions
- First and second degree burns (not indicated for third degree burns)



For more information, or  
to contact your Medline  
Representative, call  
1-800-MEDLINE or  
go to [www.medline.com](http://www.medline.com)

**1-888-GET-XCELL (1-888-438-9235)**





## SOOTHING...

### Documented Pain Relief

In a clinical trial on venous ulcers,<sup>3</sup> XCell<sup>®</sup> demonstrated statistically significant reduction in pain (quantified via a visually graded categorical pain scale). Cool to the touch, XCell soothes painful wound areas as soon as it is applied. And because its unique surface is non-adherent, XCell leaves healing tissue intact when removed.

## SIGNIFICANT CLINICAL IMPROVEMENT... documented in clinical trials

### Continuous Autolytic Debridement

XCell's unique structure promotes continuous autolytic debridement. In a clinical trial on venous ulcers,<sup>3</sup> XCell demonstrated statistically significant improvement in autolytic debridement vs. control.

### Improved Time To Granulation Tissue

The mean number of days to reach >75% healthy granulation was 43 days for the XCell-treated group compared to 71 days for the standard care group.

### Improved Time To Epithelialization

The time to re-epithelialization was 57 days for the group treated with XCell compared to 85 days for the control group.

## SAVINGS...

### Use XCell for Up to 7 days

XCell provides a new level of convenience and consistency for chronic wound care. As demonstrated clinically, a single dressing can stay on the wound for up to seven days, potentially reducing the time, materials, and costs of frequent dressing changes.<sup>3</sup>

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## NOW AVAILABLE — Antimicrobial Cellulose Wound Dressing

### Safe and Effective for Infected and Non-Infected Wounds

XCell Antimicrobial Cellulose Wound Dressings (XCell AM) are safe, yet effective, for infected and non-infected wounds. Incorporating the agent PHMB (polyhexamethylene biguanide), XCell AM has demonstrated significant reduction in bioburden and improvements in healing.<sup>4,5</sup> As a known agent that penetrates biofilms,<sup>6</sup> XCell AM in a clinical evaluation, demonstrated efficacy in many instances where wounds were unresponsive to silver-containing dressings.<sup>2</sup>

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1 Gilbert R, Cellulosic Polymers – Blends and Composites, Carl Hanser Publishers, Munich (1994)

2 Data on File

3 Alvarez OM, Patel M, Booker J, Markowitz L. Effectiveness of a Biocellulose Wound Dressing for the Treatment of Chronic Venous Leg Ulcers: Results of a Single Center Randomized Study Involving 24 patients. WOUNDS 2004; 16 (7) Pages 224 – 233.

4 Aung BJ. Diabetes Watch: Does A New Cellulose Dressing Have Potential In Chronic Wounds? Podiatry Today 2004; 17 (3); 20 – 26.

5 Shipley JR, Malone KP, Keenen LT. A New Approach to Management of Lower Extremity Wounds Using XCell Antimicrobial Cellulose Wound Dressing. Poster Presentation. APWCA National Conference, Philadelphia, PA, March 25-27, 2004.

6 Gilbert P, Das JR, Jones MV, Allison DG. Assessment of Resistance Towards Biocides Following the Attachment of Micro-organisms to, and Growth on, Surfaces. Journal of Applied Microbiology 2001; 91 (2); 248.

Made in the USA for:

**XYLOS**  
Innovation in Biomaterials

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of the Xylos Corporation, Langhorne, PA.  
U.S. Patent No. 4,788,146 and other patents  
pending.

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