MicroMatrix® urinary bladder matrix (UBM) particulate is an extracellular matrix (ECM) that supports quick resorption and wound modification through a favorable interaction with the wound environment so that wound closure can be achieved. Upon application, MicroMatrix® has been shown to support a shift from an inflammatory wound environment to one that facilitates rapid revascularization and may allow for quick wound remodeling. Unlike sheet products, MicroMatrix® powder offers flexibility for coverage over irregular, tunneling, and undermining areas of the wound.
Quick Wound Modification to Support Healing

AN ECM SOLUTION THAT PROVIDES THOROUGH CONTACT WITH THE WOUND BED

MicroMatrix® offers a wound management solution for irregular, tunneled, or undermined wounds. Applied as either a powder or paste, the particulate solution provides intimate contact with all areas of the wound bed.

FAST REVASCULARIZATION TO SUPPORT WOUND CLOSURE

• Open, porous structure permits cell infiltration and neovascularization
• Facilitates ingrowth of vascular tissue over avascular structures
• Supports the development of a vascular wound environment that may allow for follow-up management via additional sheet products, skin grafting, or flap reconstruction

UNIQUE BIMODAL STRUCTURE

MicroMatrix® is an extracellular matrix (ECM) derived from porcine urinary bladder matrix (UBM). It is acellular, non-crosslinked, and completely resorbable.

Epithelial basement membrane
The epithelial basement membrane may contribute to cell attachment.

Lamina propria
The lamina propria is an open and porous surface that allows for cellular infiltration and capillary ingrowth.
MODIFIED INFLAMMATORY RESPONSE

- MicroMatrix® provides an environment where the body is more likely to exhibit a higher ratio of M2 (pro-remodeling) to M1 (pro-inflammatory) macrophages.²,³

- In a prospective case control study, wound management with UBM resulted in a statistically significant decrease in M1 to M2 scores for both diabetic (DM) and non-diabetic (non-DM) patients, which correlated with the rate of wound area reduction.²

What are macrophages and why do they matter?

Macrophages are recognized as primary regulators of wound healing and have 2 main phenotypes: M1 and M2.

A lower M1 to M2 ratio has been associated with site-appropriate tissue remodeling, whereas a higher M1 response is associated with an encapsulation or integration response.³

<table>
<thead>
<tr>
<th>M1:M2 score</th>
<th>Pre-treatment</th>
<th>Post-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetic</td>
<td>4.42 (±0.58)</td>
<td>2.06 (±0.74)</td>
</tr>
<tr>
<td>Non-diabetic</td>
<td>2.075 (±0.94)</td>
<td>1.67 (±0.75)</td>
</tr>
</tbody>
</table>

UBM was associated with wound size reduction in both groups:

- **DM SUBJECTS**
  - 35% (±14%)

- **NON-DM SUBJECTS**
  - 43% (±18%)

ILLUSTRATIVE CASE STUDY

Left lower extremity (LLE) blast-related trauma

**Situation**
Gustilo-Anderson 3B LLE injury with severe degloving and exposed tibial fracture.

**Approach**
LLE reconstruction: free latissimus flap covers proximal two-thirds, and MicroMatrix®/Cytal® scaffold covers the distal third of wound. After 3 applications of MicroMatrix®/Cytal® combination, the wound bed was adequately vascularized for skin grafting.

**Outcome**
1 month later: split-thickness skin graft over hybrid reconstruction salvage and remodeled MicroMatrix®/Cytal®.

PROVEN CLINICAL TRACK RECORD

10+ Years on the Market

200+ Clinical and Preclinical Studies*

*Studies referenced pertain to MatriStem UBM™ technology.
MICROMATRIX® POWDER ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Product</th>
<th>Item #</th>
<th>Size</th>
</tr>
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<tbody>
<tr>
<td>MicroMatrix® Micronized Particles</td>
<td>MM0020</td>
<td>20 mg</td>
</tr>
<tr>
<td>MicroMatrix® Micronized Particles</td>
<td>MM0030</td>
<td>30 mg</td>
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<tr>
<td>MicroMatrix® Micronized Particles</td>
<td>MM0060</td>
<td>60 mg</td>
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<td>MicroMatrix® Micronized Particles, Fine</td>
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<td>MicroMatrix® Micronized Particles</td>
<td>MM1000</td>
<td>1000 mg</td>
</tr>
</tbody>
</table>

MicroMatrix®

INDICATIONS
MicroMatrix is intended for the management of wounds including: partial and full-thickness wounds, pressure ulcers, venous ulcers, diabetic ulcers, chronic vascular ulcers, tunneled/undermined wounds, surgical wounds (donor sites/grafts, post-Mohs surgery, post-laser surgery, podiatric, wound dehiscence), trauma wounds (abrasions, lacerations, second-degree burns, skin tears), and draining wounds. This device is intended for one-time use.

CONTRAINDICATIONS
1. Known sensitivity or allergy to porcine materials.
2. Third-degree burns.

WARNINGS
1. If active infection is present, treat patient to resolve infection prior to device application.
2. Do not use glass vial if cracked, broken, or otherwise damaged.
3. MicroMatrix is not indicated for treatment of alopecia.

PRECAUTIONS
Do not tap glass vial with metal objects or handle in a way that may cause glass to break and contaminate wound.