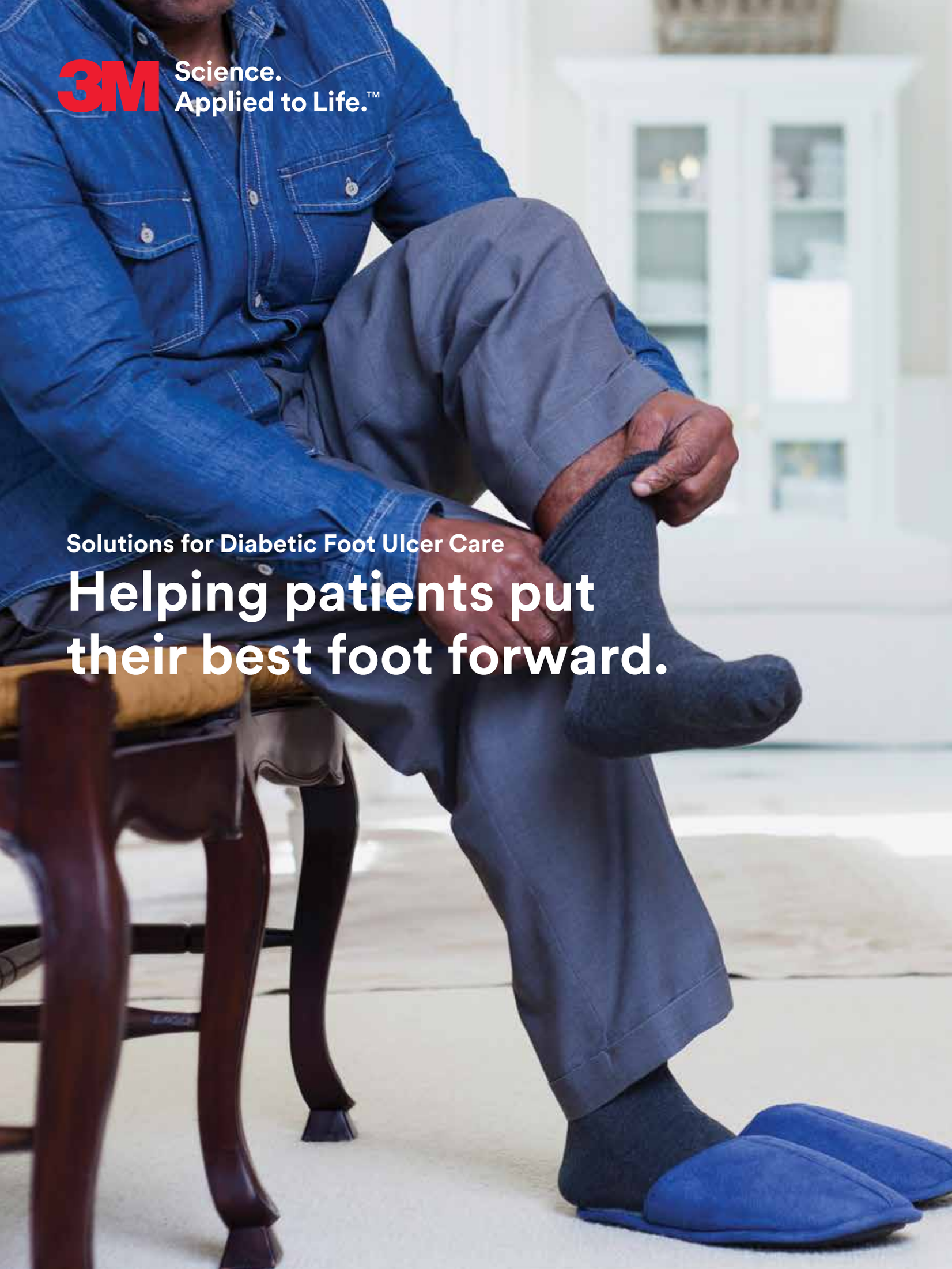


3M Science. Applied to Life.™

Solutions for Diabetic Foot Ulcer Care

Helping patients put their best foot forward.

What is a diabetic foot ulcer?

Diabetic foot ulcers (DFUs) are partial to full thickness wounds with potential bone involvement that can occur due to diabetes, neuropathy, decreased blood flow, increased pressure on the bottom of the foot, decreased sensation, and other factors. Exudate levels can range from low to high depending on multiple factors including wound size, depth, tissue type, lower extremity edema and presence or absence of tissue inflammation and infection.

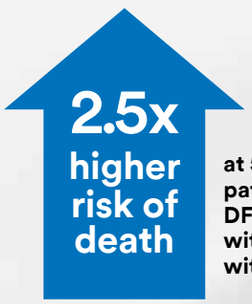
Impact of DFUs

$9-13B
additional costs from DFUs in U.S.[1]

lifetime risk
of developing a DFU for patients with diabetes.[2]

DFUs are the leading non-traumatic cause of lower extremity foot amputations worldwide.

>1M
diabetic related amputations annually.[3]

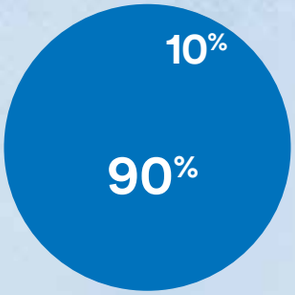


at 5 years for patients with a DFU than patients with diabetes and without a DFU.[4]

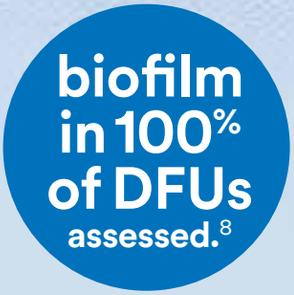
Biofilm delays healing of DFUs.[5]

Biofilm can disrupt the healing process resulting in delayed healing, higher health care costs, and increased risk for further complications, including the spread of infection. Osteomyelitis, a common consequence of diabetic foot infections, increases the risk of amputation.[5]

Biofilm is present in most chronic wounds[6,7]



A recent study identified



Biofilm present

Biofilm NOT present

Therapy goals for DFUs[9]

Key components of best practice DFU management

- Treatment of underlying disease process
- Ensure adequate blood supply to the limb
- Local wound care including infection control, tissue debridement and callus removal
- Pressure offloading

Lower-extremity neuropathic disease, frequently seen in the diabetic population, often results in loss of protective sensation and foot deformities. This leads to increased pressure and repetitive stress and strain during daily activities such as walking. These forces can lead to lower extremity ulcer formation. Off-loading, defined as pressure redistribution and reduction of repetitive shear, is critical for prevention of further tissue inflammation and damage, lower extremity amputations, and healing of existing ulcers. Total Contact Casting (TCC) is considered the gold standard for off-loading and effective healing rates. Additional modalities, or alternatives to TCC, may include bed rest, removable cast walkers, healing sandals, surgical shoes, custom sandals, crutches, walkers, and wheelchairs.[10]

Best practice wound care supports the use of topical wound care dressings to properly manage exudate levels and support moist wound healing. Excessive moisture can lead to periwound maceration; inadequate moisture may cause desiccation and cell death. Both result in delayed healing and increased costs.

Protect skin

Protecting the skin is vital to help ensure good skin health for patients with diabetes. Adverse skin changes can be noted when dressings are unable to manage the volume of drainage, or not changed often enough. Research supports routine protection of periwound skin from excess exudate, mechanical trauma, and protection of at-risk, compromised skin as essential parts of wound management and wound bed preparation.[11]

3M™ Cavilon™ No Sting Barrier Film

A gentle, effective and CHG-compatible solution for routine skin protection.

3M™ Cavilon™ Advanced Skin Protectant

Creates a highly durable, ultra-thin barrier that attaches to wet, weepy skin[12] and lasts up to seven days[13] — providing long lasting skin protection.

Prepare wound bed

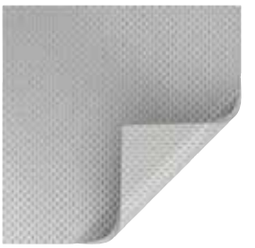
Wound healing starts with addressing underlying issues such as bioburden and inflammation, with biofilm present in most chronic DFUs. In a recent study, 100% of the 65 DFUs examined were found to contain biofilm.[8] Effective wound management strategies may include the use of topical advanced wound care products to help address the underlying issues of biofilm, bioburden and inflammation.

3M™ Kerracel™ Ag Gelling Fiber Dressing

Kerracel™ Ag Dressing is the only gelling fiber with Ag Oxysalts™ (Ag3+) Technology, providing up to 6 times more power than traditional silvers (Ag1+).[14*] Ag Oxysalts™ Technology helps to reduce the barriers that create a hostile wound environment including killing bacteria within a biofilm.[15*]

3M™ Silvercel™ Non-Adherent Antimicrobial Alginate Dressing with Easylift™ Precision Film Technology

Silvercel™ Non-Adherent Dressing is a nonwoven pad composed of alginate, carboxymethylcellulose (CMC) and silver coated nylon fibres, with a non-adherent Easylift™ Precision Film Technology designed to allow easy and pain free removal[16*] along with providing protection to newly formed tissue.[17]



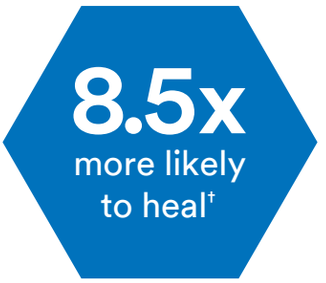
3M™ Promogran Prisma™ Matrix

Promogran Prisma™ Matrix is comprised of a sterile, freeze-dried composite of 44% oxidized regenerated cellulose (ORC), 55% collagen and 1% silver-ORC. In the presence of exudate, it transforms into a soft, conformable, biodegradable gel, thus allowing contact with all areas of the wound. The dressing maintains an optimal healing environment that is conducive to granulation tissue formation, epithelialization and rapid wound healing.

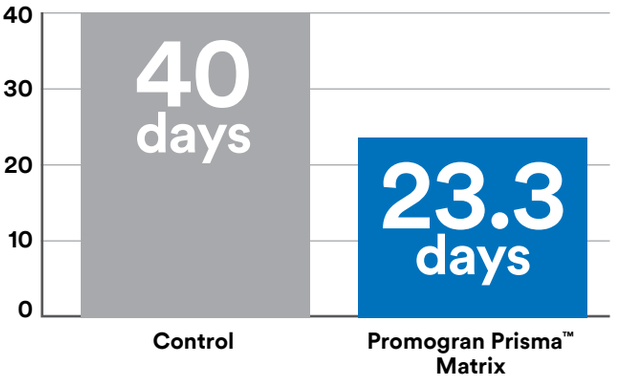
Significantly higher percentage of wounds healed

A 6-week RCT involving DFU patients (n=40) showed:[18]

- Significantly more wounds achieved complete healing in the Promogran Prisma™ Matrix Group vs Control Group (63% vs. 15%, $p < 0.03$, or 8.5)
- Based on the conditions and outcomes of this study, the Promogran Prisma™ Matrix Group was statistically 8.5x more likely to heal[18†]



Number of days to complete healing[18]



*As demonstrated *in vitro*
†Moist wound healing—standard wound care protocol

Optimize wound environment

Diabetic foot ulcers are of variable depths, partial to full thickness, and may involve tendons and bone. Exudate levels can range from low to high depending on multiple factors including wound size, depth, tissue type, lower extremity edema and presence or absence of tissue inflammation and infection.[8]

Selecting products that help optimize the wound environment is important in wound healing. Things to consider include: maintaining an optimal environment through exudate management, providing protection from outside contaminates, and enabling easy application and removal.

Exudate management solutions

3M™ Kerramax Care™ Super-Absorbent Dressing

Kerramax Care Dressing comprises a soft, non-woven outer material, unique horizontal wicking layer, super-absorbent core and heat-sealed border which together provide a high absorption capacity[19*] and an ability to effectively sequester and retain bacteria[20*] and MMPs[21*] present in moderate to highly exuding wounds, supporting wound healing and patient comfort.[22]

3M™ Tegaderm™ Silicone Foam Dressing

Tegaderm Silicone Foam Dressing offers significantly longer wear time** plus gentle adhesion. The unique multi-layer design that absorbs and evaporates moisture to help reduce the potential for skin maceration and promote an optimal healing environment.

3M™ Tegaderm™ High Performance Foam Adhesive Dressing

Tegaderm High Performance Foam Dressing is designed to meet the challenges of low- to high-exuding wounds. Available with and without adhesion, and in a range of shapes and sizes, the dressing integrates innovative features and technology to help maintain an optimal wound healing environment.

Negative pressure wound therapy

Negative pressure wound therapy (NPWT) is a method that applies sub-atmospheric pressure through a foam dressing to create an environment that promotes wound healing by drawing wound edges together, removing exudate and infectious material and reducing edema.[23,24]

Based on wound assessment and clinical judgment, NPWT may be appropriate for DFU management. Evidence supports greater wound area reduction and cost effectiveness achieved with the use of NPWT versus advanced moist wound therapy in hard-to-heal DFUs.

3M offers a portfolio of proven NPWT options that are indicated for the management of DFUs.

3M™ ActiV.A.C.™ Therapy System

ActiV.A.C Therapy System is a portable NPWT device for the mobile patient, with features that help maintain pressure at the wound site and detect leaks.

3M™ Snap™ Therapy System

Snap Therapy System is a mechanically powered disposable NPWT system that's discreet, silent and lightweight – allowing patients to sleep with minimal interference and shower with the unit in place.

*As demonstrated *in vitro*.
**4×4 in. and 6×6 in. dressings, based on *in vivo* studies EM-13977 & EM-13978. 3M Report on file EM-05-301105.

3M solutions for DFU management

Find the wound care solutions you need to help ensure improved patient outcomes.

Is the wound indicated for NPWT?

- YES → **Does the wound possess contraindications for NPWT use?**
  - YES → **Consider 3M Advanced Wound Dressings:**
    - 3M™ Kerracel™ Ag Gelling Fiber Dressing
    - 3M™ Promogran Prisma™ Matrix
    - 3M™ Kerramax Care™ Super-Absorbent Dressing
    - 3M™ Tegaderm™ Silicone Foam Dressing
    - 3M™ Tegaderm™ High Performance Foam Adhesive Dressing
  - NO → **3M™ ActiV.A.C.™ Therapy System**
- NO → **Consider 3M Advanced Wound Dressings:** (same list as above)

Consider 3M™ Snap™ Therapy System as an alternative to ActiV.A.C.™ Therapy System in the following circumstances:

- Low to moderate exudate levels
- Discreet therapy is desired/required
- Step down from ActiV.A.C.™ Therapy System
- Smaller wounds not appropriate for ActiV.A.C.™ Therapy System but would benefit from NPWT
- Short-term therapy to prepare wound bed for 3M Advanced Wound Dressings
- First line treatment; Day 1 (No 30-day requirement for modern wound care, No minimum depth)*

*May vary by payor

Protect skin

Routine skin protection

3M™ Cavilon™ No Sting Barrier Film

At-risk or damaged skin protection

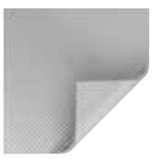
3M™ Cavilon™ Advanced Skin Protectant

Prepare wound bed

Manage biofilm/ bioburden

3M™ Kerracel™ Ag Dressing

3M™ Silvercel™ Non-Adherent Dressing



Provide collagen

3M™ Promogran Prisma™ Matrix

Optimize wound environment

Manage exudate

3M™ Kerramax Care™ Super-Absorbent Dressing

3M™ Tegaderm™ Silicone Foam Dressing

3M™ Tegaderm™ High Performance Foam Adhesive Dressing

3M™ Snap™ Therapy System

Supports granulation

3M™ ActiV.A.C.™ Therapy System

Learn more about 3M products for your DFU patients.

Contact your 3M Account Representative or visit **3M.com/DFU** for more information.

A world leader in skin and wound care right by your side.

Our focus is on transforming outcomes through patient-centered science, providing you with the trusted solutions you need at every point in your patients' journeys. With 3M as your partner for better solutions, service and education, let's usher in a new era of wound and skin care together.

Science-based solutions

3M products are trusted in more than 60,000 hospitals, homes and businesses worldwide. Our comprehensive portfolio of advanced wound care solutions is supported by clinical evidence across new and growing categories including dressings, disposables, and digital technology and connectivity.

Ongoing support

Our support is seamless and efficient, from ordering, to placement, to therapy, through patient discharge. Ordering is easy with online ordering and scheduled same-day delivery, and our team is available 24/7 to assist you with onsite clinical and technical support.

World-class education

We act as an extension of your team—empowering you with hands-on training and award-winning education. Access free medical education live and on-demand at: **3M.com/MedicalEducation**

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NOTE: Specific instructions, contraindications, warnings, precautions, and safety information exist for these products and therapies, some of which may be Rx only. Please consult a clinician and product instruction for use prior to application.