Transforming skin integrity through science.
Why skin integrity matters.

Patient/resident safety is the prevention of harm within healthcare environments, and it’s an expectation of patients/residents, their families and the providers who deliver care.

As the largest organ in the human body, skin is vulnerable to a multitude of threats — especially in healthcare settings. Protecting patients/residents from healthcare-acquired skin damage is a critical part of providing care, but as conditions become more complex, it’s ever-more challenging to keep skin safe.

That’s why you need a partner like 3M — a partner who thinks differently about skin and is dedicated to elevating the role skin plays in patient/resident health and healing.
Exposure over time to factors such as irritants, moisture, friction, shear and adhesives can lead to skin breakdown and conditions including:

- **Moisture-Associated Skin Damage (MASD)**
- **Pressure Ulcer/Injury (PU/I)**
- **Medical Adhesive-Related Skin Injury (MARSI)**

Not only can these conditions affect patient/resident health and healing, they can also influence care costs and facility resources. And because they have shared risk factors, it’s not uncommon for multiple conditions to present simultaneously — further amplifying their impact.
What is Moisture-Associated Skin Damage (MASD)?

MASD is a term that describes several types of damage that occur when skin is exposed to excessive moisture and/or irritants. With over-hydration, the stratum corneum (outer most layer of the epidermis) becomes more permeable, skin pH becomes more alkaline and inflammation occurs.

In addition, friction forces are increased when skin is moist or wet, so skin is more susceptible to damage.

Moisture can come from sweating, wound drainage, urine or stool, saliva, or other body fluids. But some fluids such as liquid stool, gastric or pancreatic fluid are problematic, caustic irritants that can directly damage skin.

35% of all IAD cases in the acute care setting are severe.
The types of MASD

Incontinence-Associated Dermatitis (IAD)
Rich in enzymes and with an alkaline pH, liquid stool is a powerful irritant that can easily disrupt the skin's normal barrier structure. Severe inflammation follows and where epidermis is destroyed, the result is a painful injury that causes needless suffering and can interfere with recovery or quality of life.

41% of nursing home residents may have IAD²

Peristomal Skin Damage
Pouch security is critical to the comfort and well-being of the patient/resident with a stoma, and maintaining intact skin is critical to pouch adherence. Problem stomas, poor stoma location and high-volume output, especially that of liquid stool, can contribute to skin injury that can rapidly progress to erosion.

77% of patients with ostomies develop skin complications, with irritant dermatitis being the most common problem³

Periwound Skin Damage
This type of skin damage is often associated with wounds that produce large quantities of drainage, such as venous ulcers or infected wounds. Adverse skin changes can also be noted when dressings are unable to manage the volume of drainage, or not changed often enough. Once established, maceration is difficult to resolve, especially if exposure has been prolonged and skin changes are severe.

Intertriginous Dermatitis (ITD)
When skin is exposed to friction (from rubbing against a surface or itself), heat is generated and epidermal cells are rubbed away, triggering inflammation. If moisture is also present, frictional forces are increased. This combination of factors can result in superficial skin damage.
What is a Pressure Ulcer/Injury (PU/I)?

A pressure ulcer/injury is localized damage to the skin and underlying soft tissue, usually over a bony prominence or related to a medical device. Moisture, friction and shear are accepted as risk factors for pressure ulcer/injury development.

50% of all pressure ulcers/injuries occur at anatomical sites that overlay a bony prominence, such as the heel and sacrum4,5

3x Patients with IAD are at an increased risk of superficial sacral pressure ulcers/injuries with an odds ratio of 2.996
What is Medical Adhesive-Related Skin Injury (MARSII)?

Medical adhesives are a critical part of healthcare, but can cause Medical Adhesive-Related Skin Injury, or MARSII — a prevalent but under-recognized complication that can be serious enough to require additional treatment.

MARSII can cause pain, increase the risk of infection and delay healing — all of which can reduce a patient’s/resident’s quality of life. Skin tears, skin stripping and tension blisters are common but avoidable examples of MARSII.

30% of oncology patients developed MARSII at their PICC insertion site over the course of two weeks.

One study showed a 21.4% prevalence of MARSII in an acute care setting. Prevalence may vary by care setting and patient risk factors.
A holistic framework for skin damage.

Comprised of a set of interventions intentionally and primarily designed to prevent healthcare-acquired skin damage, skin safety principles can also be applied to management of skin injury.

The Skin Integrity Model proposes that multiple types of healthcare-acquired skin damage share numerous contributing and causative factors. With this in mind, it makes sense for clinicians to think beyond conditions when thinking about prevention.

Multiple factors impacting skin damage

- **Intrinsic factors**
  - Age
  - Mobility
  - Cognition
  - Co-morbidities
  - Living situation
  - Nutrition

- **Extrinsic factors**
  - Moisture
  - Pressure
  - Friction
  - Shear
  - Irritants
  - Adhesives

- **Care factors**
  - Management support
  - Financial resources
  - Clinical skill
  - Staffing
  - Protocols
  - Product formulary

- **Potential conditions**
  - Moisture-Associated Skin Damage (MASD)
  - Pressure Ulcer/Injury (PU/I)
  - Medical Adhesive-Related Skin Injury (MARSI)

- **Potential impact**
  - Patient pain and suffering
  - Infection
  - Longer length of stay
  - Increased costs

\[10\text{Adapted from: 1) Campbell, Skin Safety Model; and 2) Medical Adhesives and Patient Safety: State of the Science}\]
Preventing skin damage is the ultimate goal but it cannot be done by focusing on one aspect of care. Exploring a more holistic approach to prevention starts with protecting against the vulnerabilities in your facility, in your practice, and most importantly, in your patients/residents.

3 keys to reduce risk

**People**
Develop highly trained and committed teams

**Practice**
Implement evidence-based standards and processes facility-wide

**Products**
Choose proven technologies that improve patient outcomes
Experts in the science of skin integrity.

At 3M, we can help you protect patient/resident skin like no other partner can. Because we apply ingenuity to innovation like no other partner does. When patient/resident skin integrity depends on you, you can depend on the skin care solutions engineered with integrity in mind.

With an advanced skin protectant, novel barriers and a range of companion products that help maintain skin health, 3M™ Cavilon™ Skin Care Solutions has everything you need to protect the skin that protects your patients/residents.

Featuring 3M’s revolutionary polymer-cyanoacrylate technology, Cavilon Advanced Skin Protectant creates a highly durable, ultra-thin barrier that attaches to wet, weepy skin and lasts up to seven days — protecting patient/resident skin.

3M™ Cavilon™ No-Rinse Skin Cleanser

An important part of any skin integrity program, Cavilon No-Rinse Skin Cleanser is a gentle, effective cleanser that helps control odor. It’s pH balanced and conditions and soothes skin.
With a unique terpolymer formula that delivers exceptional durability and flexibility, Cavilon No Sting Barrier Film is a gentle, effective and CHG-compatible solution for routine skin protection.

Formulated with 3M polymer technology, Cavilon Durable Barrier Cream is a durable, moisturizing barrier cream that resists wash-off and allows adhesives to adhere.

Ideal for patients/residents with diabetes or other dry skin conditions, the moisturizing effect of Cavilon Extra Dry Skin Cream lasts 24 hours to soften and relieve rough, cracked or scaly skin.

A moisturizing lotion designed specifically for clinicians, Cavilon Moisturizing Hand Lotion can help maintain or restore skin’s moisture barrier without affecting the activity of chlorhexidine gluconate (CHG) antiseptic products.

Enriched with water-repelling ingredients, Cavilon Antifungal Cream is easy to apply, provides relief and treats fungal skin infections including those caused by yeast (Candida albicans).
# Finding the optimal solution for your skin integrity needs

<table>
<thead>
<tr>
<th>Moisture-Associated Skin Damage (MASD)</th>
</tr>
</thead>
</table>

- **Incontinence-Associated Dermatitis (IAD)**
- **Peristomal Skin Damage**
- **Periwound Skin Damage**
- **Intertriginous Dermatitis (ITD)**

## Manage damaged or broken skin

<table>
<thead>
<tr>
<th>Manage IAD</th>
<th>Manage peristomal/perifistular skin damage</th>
<th>Manage periwound skin damage (e.g. maceration)</th>
<th>Manage superficial skin damage from moisture and friction</th>
</tr>
</thead>
</table>

## Protect at-risk skin

<table>
<thead>
<tr>
<th>Protect intact skin especially in the presence of diarrhea or mixed incontinence</th>
<th>Protect skin around problem fecal or urinary stomas, fistulas or tracheostomies</th>
<th>Protect skin around at-risk wounds (e.g. heavily draining wounds such as diabetic foot ulcers, venous leg ulcers or infected wounds)</th>
</tr>
</thead>
</table>

## Ideal for routine protection

<table>
<thead>
<tr>
<th>Protect intact skin for low-risk patients/residents</th>
<th>Protect intact skin for low-risk patients/residents</th>
<th>Protect intact skin from moisture and friction</th>
</tr>
</thead>
</table>
### skin integrity needs.

<table>
<thead>
<tr>
<th>Pressure Ulcer/Injury</th>
<th>Medical Adhesive-Related Skin Injury (MARSIs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage superficial skin injury in difficult-to-dress locations</td>
<td>Manage superficial skin damage (e.g. stripping, skin tears) from adhesive use</td>
</tr>
<tr>
<td>Protect intact skin from moisture, friction or shear</td>
<td>Protect intact skin from adhesive products (e.g. tape, wound and vascular access dressings and ostomy products)</td>
</tr>
</tbody>
</table>

When you need to moisturize at-risk or severely dry skin, or protect skin at low risk from breaking down, consider using **3M™ Cavilon™ Durable Barrier Cream**.

- **3M™ Cavilon™ Advanced Skin Protectant**
- **3M™ Cavilon™ No Sting Barrier Film**
- **3M™ Cavilon™ Durable Barrier Cream**
Proven solutions with the power to make a positive difference.

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Product</th>
<th>Size</th>
<th>Items/Box</th>
<th>Boxes/Case</th>
<th>HCPCS Code</th>
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</thead>
<tbody>
<tr>
<td>5050</td>
<td>3M™ Cavilon™ Advanced Skin Protectant*</td>
<td>2.7 mL applicator</td>
<td>20</td>
<td>1</td>
<td>A6250</td>
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<tr>
<td>5051</td>
<td>3M™ Cavilon™ Advanced Skin Protectant*</td>
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<td>3343</td>
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<td>3344</td>
<td>3M™ Cavilon™ No Sting Barrier Film</td>
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<td>30</td>
<td>4</td>
<td>A5120 A6250</td>
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<td>3345</td>
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<td>3346</td>
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<td>3353</td>
<td>3M™ Cavilon™ Durable Barrier Cream</td>
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<tr>
<td>3354</td>
<td>3M™ Cavilon™ Durable Barrier Cream</td>
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<td>1</td>
<td>A6250</td>
</tr>
<tr>
<td>3355</td>
<td>3M™ Cavilon™ Durable Barrier Cream</td>
<td>3.25 oz. tube</td>
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<td>3386</td>
<td>3M™ Cavilon™ Extra Dry Skin Cream</td>
<td>4 oz. tube</td>
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<tr>
<td>3390</td>
<td>3M™ Cavilon™ Antifungal Cream</td>
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<td>1</td>
<td>A6250</td>
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</tbody>
</table>

*RX only. See instructions for use.

HCPCS codes have been provided to assist you in the preparation of insurance claims. Please note, however, that the reimbursement information provided by 3M Health Care and its representatives is intended to provide general information relevant to coverage and coding for 3M products. Insurers’ reimbursement policies can vary and the use of the codes discussed here does not guarantee that an insurer will cover or pay at any particular level. Health care providers should exercise independent clinical judgment in choosing the codes which most accurately describe the products provided.

For more information, contact your 3M Health Care Sales Representative, call the 3M Health Care Customer Helpline at 1-800-228-3957 or visit 3M.com/Cavilon. This product can be ordered from your local distributor. Outside the United States, contact your local 3M subsidiary.
Discover all the ways 3M™ Cavilon™ Skin Care Solutions can help you transform patient/resident skin integrity at 3M.com/Cavilon


Source: https://europepmc.org/abstract/med/15509110.

