ADVANCED MICROCLIMATE MANAGEMENT

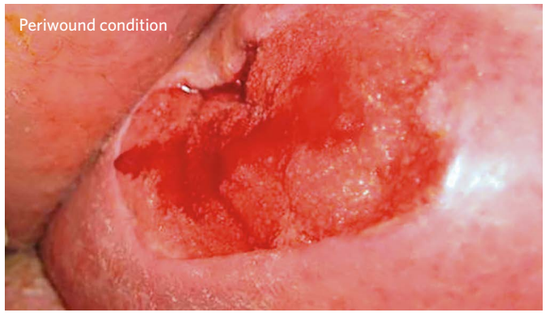
Skin IQ™ – Solution Guide

Providing an environment for skin integrity

arjo
with people in mind

Pressure injuries are a global challenge for patients and caregivers

Pressure injuries present a global challenge to healthcare providers, causing unnecessary suffering to patients and creating a serious financial burden for healthcare facilities. Costs associated with pressure injuries are estimated to be between $9–11 billion per year in the US alone.[1]



Moisture

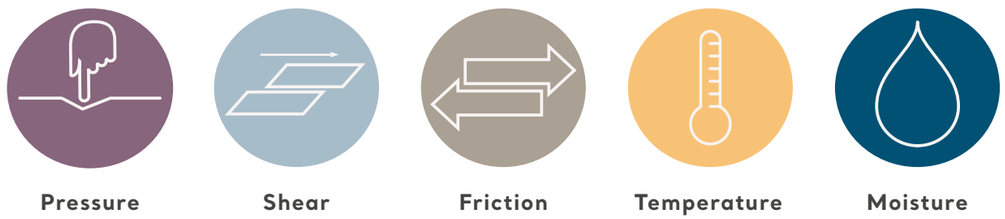
Excessive moisture on the surface of the skin reduces patient resilience to withstand pressure, shear and friction, some of the key risk factors that lead to the development of a pressure injury.[3]

Excessive moisture can be generated from multiple factors including:

- Perspiration due to elevated body temperature
- Fluids from incontinence
- Wound drainage
- Factors specific to a patient's clinical condition

By addressing and applying the appropriate solutions and protocols, pressure injuries in care environments can be successfully prevented and managed.

Risk factors that can lead to pressure injuries include:[2]

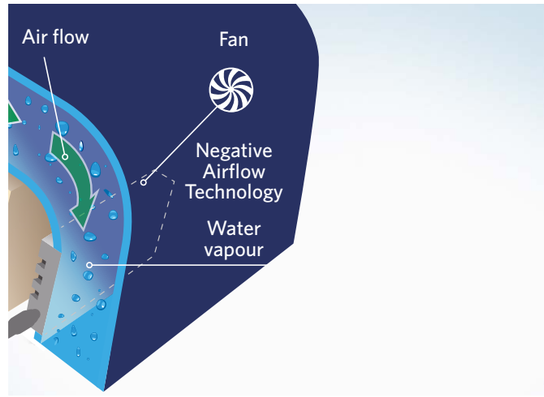


Skin IQ Microclimate Management for the prevention and management of pressure injuries*

Skin IQ Microclimate Managment

The Skin IQ Family of products are powered mattress coverlets which utilise unique negative airflow technology (NAT) to continually draw away excess moisture from the skin/surface interface, for microclimate management.

These products can be applied to most support surfaces for effective pressure injury prevention and management.



Managing moisture and temperature

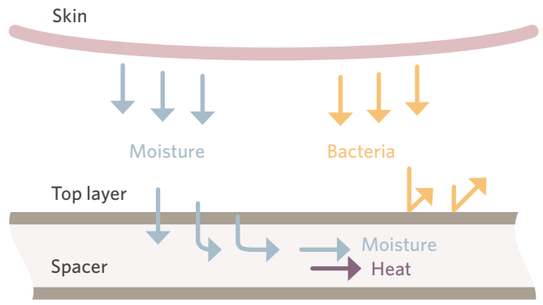
Excess moisture is passed via an evaporative effect through the vapor permeable, antimicrobial containing top layer and into the middle layer spacer material. The top layer also serves as a barrier to fluid and bacteria.[4]

Negative Airflow Technology

NAT pulls moisture vapor that passes through the top layer into the middle layer's open construction spacer material with a vacuum effect.

Negative Airflow Technology provides:

- improved laminar airflow that eliminates surface billowing seen with standard air pumps
- increased air velocity beneath the patient



*Skin IQ™ is indicated for use in conjunction with a pressure redistribution surface in order to aid in the prevention and treatment of skin breakdown and pressure injuries (stages I–IV) for patients who require microclimate management of the skin.

The Skin IQ family addresses your clinical & safety needs

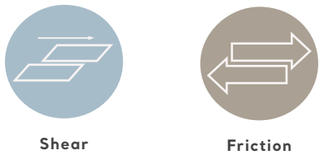
The Arjo Skin IQ family of products utilise unique negative airflow technology to enable advanced microclimate management by controlling excess moisture and heat at the patients' skin/surface interface.

The National Pressure Ulcer Advisory Panel recommends that support surfaces be used as a part of a total program of prevention and treatment. Patients should be provided a support surface that is properly matched to their individual needs for pressure redistribution, sheer reduction, and microclimate control.[9]

Prevention and management of pressure injuries – a never event

Moisture & Temperature Control

Skin IQ enhances the control of temperature and moisture between the skin and mattress to keep your patient cool and dry.



Reduced shear and friction

Skin IQ MCM reduces friction and shear, helping to reduce the risk of pressure ulceration.[5]

Patient comfort

With a quiet fan[6] and a height profile that does not affect pressure redistribution surface performance[7].

Adaptability

Skin IQ products are designed for compatibility with most pressure redistribution mattresses on the market today.

Versatility

Skin IQ is available in multiple versions to fit your facilitie's needs: Disposable, Reusable or Bariatric.

Effective odour control

Skin IQ significantly reduces odour at the skin/mattress interface when compared to the same surface without airflow[8].

Ease of Application

Skin IQ is easy to attach and remove.

The clinically proven, standard of care

Skin IQ MCM Moisture Vapour Transfer Rates (MVTR)

- The Skin IQ MCM provides a moisture vapour transfer rate (MVTR) of 130g/m^2/hr[10]
- The Skin IQ 365 reusable MCM provides an MVTR of 171 g/m^2/hr[11]
- The Skin IQ 1000 bariatric version provides an MVTR of 165 g/m^2/hr[12]

High Moisture Removal For Reduced Skin Maceration

Bench studies show that the Skin IQ Coverlet removes 3.8 times more moisture at the skin/mattress interface than the same mattress without the Skin IQ Coverlet.[10]

Reduces Shear and Friction

The Skin IQ coverlet surface reduces shear and friction, helping to reduce the risk of pressure ulceration.[5]

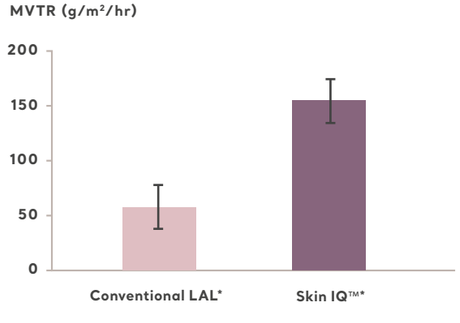
Helps Control Odour

Bench studies show that the Skin IQ Coverlet significantly reduces odour at the skin/mattress interface when compared to the same surface without airflow.[8]

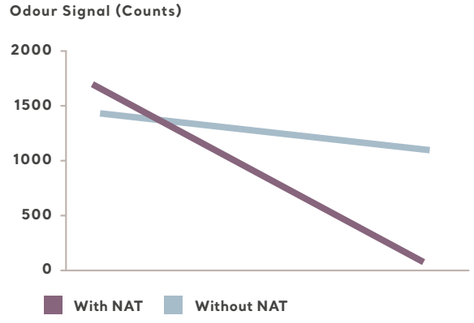
Doesn't Diminish Pressure Redistribution Effectiveness

Pressure mapping testing shows that the Skin IQ Coverlet does not diminish the pressure redistribution properties of the underlying mattress.[7]

Moisture Vapour Transmission Rate



Odour Reduction at 30 days



> **The introduction of recent microclimate (MCM) technology into this facility has the potential to decrease rental costs while treating and preventing pressure ulcers and moisture-related breakdown.**

Jean deLeon, MD Director Wound Care Clinic Baylor Specialty Hospital, Dallas, TX, USA

> **...Skin IQ can simplify surface selections, expedite therapy (stored on each unit) while providing outstanding clinical results.**

Rose Raizman, CNS, Director Surgical Program, Ropuge Valley Health System, Toronto, Ontario, Canada

*Surfaces tested include: Encompass® AccuMax Quantum™, SenTech™ STAGE IV® 2000, Gaymar® SPRPlus® III, Stryker® Impression®, Hill-Rom® TotalCare® P500,Hill-Rom® Envision®, Hill-Rom® cuCair®, and Skin IQ™ MCM. A control plastic sheet was used on all surfaces.

Case study[13]*

Patient:

78-year-old male with head and neck cancer.

Diagnosis:

Patient suffered from dysphagia and incontinence resulting in skin breakdown and a high risk of pressure injury.

Initial skin breakdown

Initial treatment with Skin IQ:

The patient was placed on a Skin IQ Coverlet on a pressure redistribution mattress at admission and remained on the Skin IQ Coverlet for 27 days with follow-up at day 30.

Progress, discharge and follow-up:

Skin breakdown was resolved and patient was discharged.

Follow-up at day 30

*All concomitant treatments remained constant before and after Skin IQ™ use

Case study[13]*

Patient:

A 54-year-old African - American female with human immunodeficiency virus (HIV) presented with a complaint of a clogged tracheostomy.

Diagnosis:

The patient had acute renal insufficiency along with Methicillin-sensitive Staphylococcus aureus (MSSA) pneumonia.

Initial skin breakdown

Initial treatment with Skin IQ:

The patient was placed on the Skin IQ Coverlet in conjunction with a pressure redistribution mattress and remained on the Skin IQ Coverlet for two weeks.

Progress, discharge and follow-up:

Skin breakdown resolved and patient was discharged to acute rehabilitation.

2 weeks post Skin IQ Coverlet

References

1. Padula WV, Mishra MK, Makic MB, Sullivan PW (2011) Improving the quality of pressure ulcer care with prevention a cost effectiveness analysis. Med Care 49 (4): 385-92
2. Reger SI, Ranganathan VK, Sahgal V. (2007). Support Surface Interface Pressure, Microenvironment, and the Prevalence of Pressure Ulcers: An Analysis of the Literature. Ostomy Wound Manage. 53:50-58.
3. International review. Pressure ulcer prevention: pressure, shear,friction and microclimate in context. A consensus document. London: Wounds International, 2010.
4. Arjo Data on File, Test Report Viral Barrier Property of Top Sheet of Skin IQ Coverlet – 100018376 pg. 3 & 100019009 pg. 1-7.
5. Arjo Data on File, Skin IQ Coefficient of Friction Test Report – 100018362 pg. 1.
6. Arjo Data on File, Skin IQ Reusable Microclimate Management System Sound Level Verification, Test Report – 100014362.
7. Arjo, Inc., Speight M, Newton D, Barton KS, Crist J, Acosta J. (2018). The Family of Skin IQ Microclimate Manageent Coverlets Does not Alter Immersion with 10 Therapeutic Surfaces: An Extended Study Using the SS-1 Standard. Poster Presentation, Annual EPUAP Conference, Rome, 2018.
8. Arjo Data on File, Assessment of Skin IQ Microclimate Manager Capability to Mitigate Odour, Test Report – 100018484.
9. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Emily Haesler (Ed.). Cambridge Media: Perth, Australia; 2014.
10. Arjo Data on File, SIQ 2010-57. Test Report, Skin IQ Microclimate Manager/Low Air Loss (LAL) Coverlet Functional (Post-Stress) Testing – 100018343 pg. 6,12.
11. Arjo Data on File, Skin IQ Reusable System Functional Test – 100014338 pg. 6.
12. Arjo Data on File, Skin IQ Microclimate Manager 60 Day MVTR Test report – 100016748 pg. 3.
13. Case Studies Courtesy of Jean De Leon, MD, Medical Director, Baylor Specialty Hospital.

At Arjo, we are committed to improving the everyday lives of people affected by reduced mobility and age-related health challenges. With products and solutions that ensure ergonomic patient handling, personal hygiene, disinfection, diagnostics, and the effective prevention of pressure injury and venous thromboembolism, we help professionals across care environments to continually raise the standard of safe and dignified care. Everything we do, we do with people in mind.

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