



SKIN IQ SOLUTION GUIDE

Advanced microclimate management

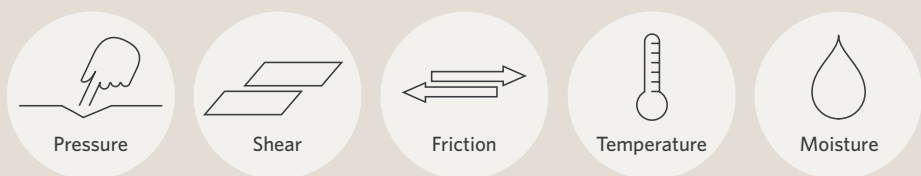
PROVIDING AN ENHANCED MICROCLIMATE ENVIRONMENT FOR SKIN INTEGRITY

Pressure injuries are a continual challenge for patients and caregivers

20% of patients in acute care develop a pressure injury*

Pressure injuries present a global challenge to health care providers, causing unnecessary suffering to patients and creating a serious financial burden for health care facilities. Costs associated with pressure injuries exceed \$26.8 billion¹ every year in the U.S. alone.²

Risk factors that can lead to pressure injuries include:³



*Source: Moore Z. A randomized controlled clinical trial of repositioning, using the 360 tilt, for the prevention of pressure ulcers. *Journal of Clinical Nursing*. 2011.

Moisture

Excessive moisture on the surface of the skin reduces patient's resilience to withstand pressure, shear and friction, some of the key risk factors that lead to the development of a pressure injury.⁴



Periwound condition

Excessive moisture can be generated due to multiple factors including:

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

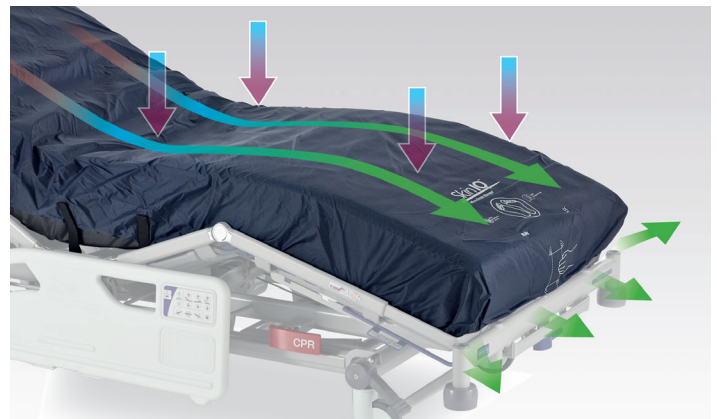
By addressing and applying the appropriate solutions and protocols, pressure injuries within health care environments can be successfully prevented and treated.

Skin IQ microclimate management: For the prevention and treatment of pressure injuries*

Skin IQ® microclimate management

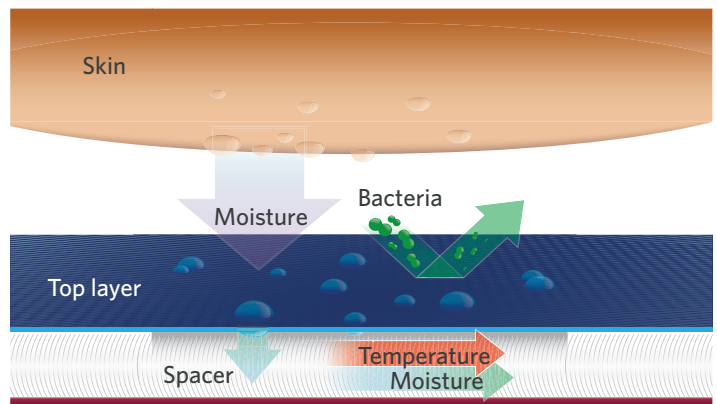
The Skin IQ family of products are powered mattress coverlets that utilize state-of-the-art Negative Airflow Technology (NAT) to continually draw away excess moisture from the skin/surface interface, for superior microclimate management.

These products can be used in conjunction with most therapeutic support surfaces for effective pressure injury prevention and treatment.



Managing moisture and temperature

Excess moisture is passed through the vapor-permeable, antimicrobial top layer and into the middle layer spacer material via an evaporative effect. The top layer also serves as a barrier to fluid and bacteria.⁵

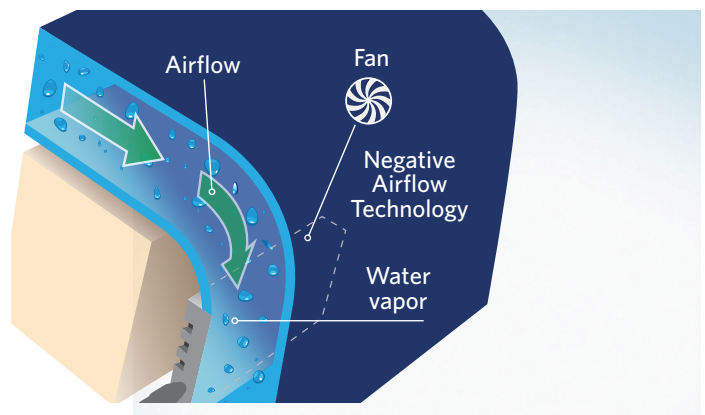


Negative Airflow Technology

Negative Airflow Technology (NAT) pulls moisture vapor through the top layer into the middle layer's open-construction spacer material.

Negative Airflow Technology provides:

- Improved laminar airflow that eliminates surface billowing, as experienced with standard air pumps
- Increased air velocity beneath the patient, for maximal moisture control

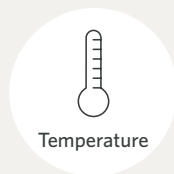


*Skin IQ is indicated for use in conjunction with a pressure redistribution surface in order to aid in the prevention and treatment of skin breakdown and pressure ulcers (stages I-IV) for patients who require microclimate management of the skin.

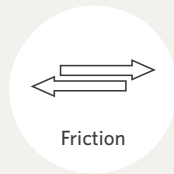
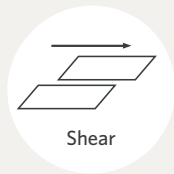
The Skin IQ family addresses your clinical and safety needs

The Arjo Skin IQ family of products is the only skin integrity solution that utilizes Negative Airflow Technology to enlist advanced microclimate management. Skin IQ accomplishes this by controlling excess moisture and heat at the patient's skin/surface interface, thereby optimizing pressure injury management, which can lead to improved clinical outcomes, risk mitigation and improved workflow for staff.

Prevention and treatment of pressure injury



Effective moisture and temperature control: Skin IQ reduces temperature at the skin/mattress interface, thereby reducing the risk of excess moisture and preventing tissue breakdown.



Reduced shear and friction: By managing interface temperature, Skin IQ reduces friction and shear for effective pressure injury prevention and treatment.

Increased patient safety



Fall prevention initiatives are supported, due to Skin IQ's low height profile compared to overlay.

Increased patient comfort



Patient comfort is assured due to Skin IQ's noise-reduction technology and low height profile, which does not affect pressure redistribution surface performance.⁶



The National Pressure Injury Advisory Panel recommends that support surfaces be used as a part of a total prevention and treatment program. Patients should be provided with a support surface that is properly matched to their individual needs for pressure redistribution, shear reduction and microclimate control.¹⁸



Adaptability

Skin IQ is designed for compatibility with most pressure redistribution support surfaces on the market today.



Versatility

Skin IQ is available in multiple versions to best fit your facility's needs: disposable, reusable or bariatric.



Improved workflow

Skin IQ is easy to apply and remove, for an improved workflow.



Effective odor control

Skin IQ significantly reduces odor, compared to the same surface without Negative Airflow Technology.⁷

Skin IQ family features

	Skin IQ MCM (single use)
Vapor-permeable top layer facilitates removal of excess patient moisture, serves as a barrier to fluid and bacteria, ⁵ and provides a smooth surface for reduction of friction and shear ⁸	●
Negative Airflow Technology continuously draws moisture away from the skin surface and helps manage skin temperature	●
Market leading moisture removal that is significantly greater than conventional powered air surfaces (previously known as Low-Air Loss) ^{9,10}	●
Multiple patient use (reusable) coverlet capable of being disinfected between patients via either laundry or wipe-down	—
Single patient use to address cross-contamination	●
Indicated for patients weighing up to 500 lbs	●
Indicated for patients weighing up to 1,000 lbs	—
<p>Skin IQ MCM, Skin IQ 365 and Skin IQ 1000</p> <p>Electrical All: Voltage 100-240 VAC All: Frequency 50/60 Hz Skin IQ MCM and 1000: Ampere rating 0.5A Skin IQ 365: Ampere rating 0.3A</p> <p>Maximum electrical leakage All: (100 uA at 115 VAC 60Hz) and (200 uA at 230 VAC 50Hz) Skin IQ MCM and 1000: Power cord length 19.69' (6 m) Skin IQ 365: Power cord length 20.0' (6.1 m)</p> <p>Environmental conditions operation Skin IQ MCM and 1000: Temperature range 57.2° F (14° C) to 95° F (35° C) Skin IQ 365: Temperature range 32° F (0° C) to 104° F (40° C)</p> <p>Transport/storage Skin IQ MCM and 1000: Temperature range -20.2° F (-29° C) to 140° F (60° C) Skin IQ 365: Temperature range -20.2° F (-29° C) to 167° F (75° C)</p>	<p>Skin IQ (single use) product information</p> <p>Maximum safe working load 500 lbs (227 kg) Recommended duration of use for single patient is not more than 60 days for patients weighing up to 380 lbs (172.37 kg). Duration of use for patients weighing 380 lbs (172.37 kg) to 500 lbs (227 kg) is not to exceed 30 days. Evaporative capacity 230 (g/m²/hr).¹¹</p> <p>Compatibility The Skin IQ MCM is designed to fit on a pressure redistribution surface that is 80-84" (203.2-213.4 cm) long by 35-36" (88.9-91.4 cm) wide by 7-8" (17.8-20.3 cm) high.</p> <p>Consult pressure redistribution surface and/or frame product labeling for compatibility. SkinIQ is intended to be compatible with the majority of support surfaces.</p>

Skin IQ 365 (reusable)	Skin IQ 1000 (single use)
●	●
●	●
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Skin IQ 365 (reusable) product information

Maximum safe working load 500 lbs (227 kg)

Useful life of this product is one year or 35 laundry cycles, whichever comes first. Evaporative capacity 230 (g/m²/hr).¹²

Compatibility

Skin IQ 365 is designed to fit on a pressure redistribution surface that is 80-84" (203.2-213.4 cm) long by 35-36" (88.9-91.4 cm) wide by 7" (17.8 cm) high.

Consult pressure redistribution surface and/or frame product labeling for compatibility. SkinIQ365 is intended to be compatible with the majority of support surfaces.

Additional weight limitations may apply.

Skin IQ 1000 (single use) product information

Maximum safe working load 1,000 lbs (453.59 kg)

Recommended duration of use for single patient is not to exceed 60 days for patients weighing up to 1,000 lbs (453.59 kg).

Compatibility

Skin IQ 1000 is designed to fit on a pressure redistribution surface that is 80-84" (203.2-213.4 cm) long by 48" (121.9 cm) wide by 7" (17.8 cm) high.

Consult pressure redistribution surface and/or frame product labeling for compatibility. SkinIQ1000 is intended to be compatible with the majority of bariatric support surfaces.

Additional weight limitations may apply.

The clinically proven standard of care

Outstanding evaporative capacity

Compared with currently available LAL surfaces, the Skin IQ coverlet provides the highest evaporative capacity and the most temperature reduction.^{10*}

High moisture removal for reduced skin maceration

Studies show that the Skin IQ coverlet removes 40 times more moisture at the skin/mattress interface than the same mattress without the Skin IQ coverlet,¹³ which may help reduce the incidence of periwound maceration and pressure injury risk.¹⁴

Reduces temperature at skin/mattress interface

Studies show that the Skin IQ coverlet reduces temperature at the skin/mattress interface by more than 1° C in 45 minutes.¹⁰ This can translate to a 10% reduction in tissue metabolism rate.¹⁵

Reduces shear and friction

The Skin IQ coverlet's top layer material reduces shear and friction to help prevent and treat pressure injury.¹⁶

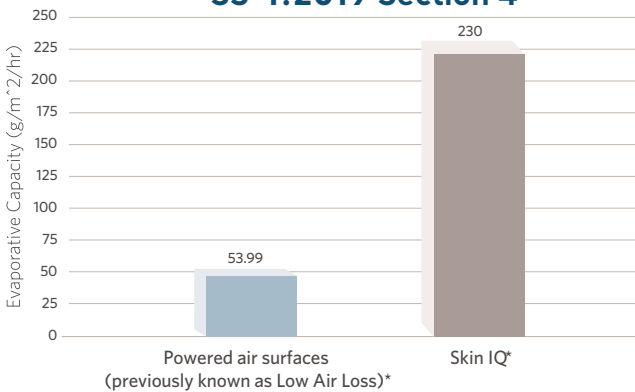
Helps control odor

Studies show that the Skin IQ coverlet significantly reduces odor at the skin/mattress interface, when compared to the same surface without Negative Airflow Technology (NAT).⁷

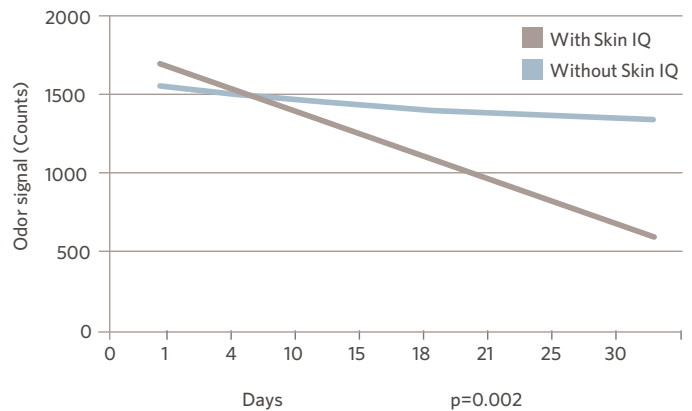
Doesn't diminish pressure redistribution effectiveness

Pressure mapping testing shows that the Skin IQ coverlet does not diminish the pressure redistribution properties of the underlying mattress.⁶ The evidence from the "What's Under the Sheets Matters — a compatibility study" demonstrates that the addition of the Skin IQ coverlet on multiple support surfaces did not negatively impact the immersion.¹⁹

Evaporative Capacity as per SS-1:2019 Section 4



Odor reduction at 30 days⁹



*SS1-1:2019 Section 4: The evaporative capacity is expressed in g/m²/hr and is a valuable clinical measure of a surfaces ability to limit the accumulation of moisture on the skin.

Case study^{17*}

Patient

A 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.



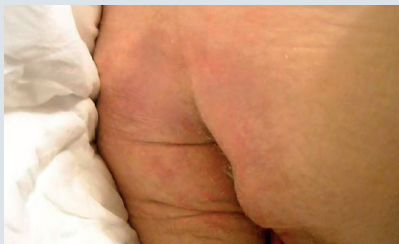
Initial skin breakdown

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

Case study^{17*}

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.



Two weeks post Skin IQ coverlet

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

Jean de Leon, MD, Director, Wound Care Clinic, Baylor Specialty Hospital, Dallas, Texas

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

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

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

Flexible solution

Pressure injuries represent a major financial strain for health care providers. Pressure injury costs include extended patient stays, expensive treatment and the draining of valuable caregiving resources.

Skin IQ can offer a cost-effective and comprehensive pressure injury prevention and treatment alternative, when compared with other support surfaces.

Skin IQ may help reduce indirect costs for facilities such as:

- Pressure injury incidence
- Patient falls
- Power consumption
- Labor costs



Selection of an appropriate support surface should take into consideration factors such as the individual's level of mobility within the bed, his/her comfort, the need for microclimate control, and the place and the circumstances of care provision.

Skin IQ 365 (reusable)	Description
SIQCPRUS1UN	Complete Skin IQ 365 kit containing coverlet, fan and power supply
Skin IQ 365 spare parts	
SIQCORUS1UN	Coverlet only
SIQFNRU04UN	Fan only. Comes in 4-pack only
SIQPSRU04UN	Power supply only. Comes in 4-pack only
Skin IQ (single use)	
SIQCPST04US	Complete Skin IQ kit containing coverlet, fan and power supply (4-pack)
SIQCOST04UN	Original Skin IQ mattress coverlet only (4-pack)
SIQPSST04UC	Original Skin IQ spare part. Power supply only (4-pack)
SIQCPST1US	Complete Skin IQ kit containing coverlet, fan and power supply (1-pack)
Skin IQ 1000 (single use)	
SIQCPBAS1US	Original Skin IQ 1000 kit containing coverlet, fan, and power supply (1-pack)
SIQCOBAS1UN	Original Skin IQ 1000 mattress coverlet (1-pack)

References:

1. Padula WV, Delarmente BA. The national cost of hospital-acquired pressure injuries in the United States. *Int Wound J*. 2019 Jun;16(3):634-640. doi: 10.1111/iwj.13071. Epub 2019 Jan 28. PMID: 30693644; PMCID: PMC7948545.
2. Reddy M et al. *JAMA*. 2006;296(8):974-984.
3. Reger S et al. *Ostomy Wound Manage*. 2007; 53:50-58.
4. Clark M, Romanelli M, Reger S, et al. London: *Wounds International*, 2010.3.
5. Arjo data on file.
6. Arjo data on file.
7. Arjo data on file.
8. Arjo data on file.
9. Reger S et al. *Arch Phys Med Rehabil*. 2001; 82(5):597-603.
10. Arjo data on file.
11. Arjo data on file.
12. Arjo data on file.
13. Arjo data on file.
14. Arjo data on file.
15. Flam E and Raab L. European Pressure Ulcer Advisory Panel, Aberdeen, Scotland. May 5-7, 2005. <http://www.epuap.org/aberdeen/page3.htm>.
16. Arjo data on file.
17. Case studies courtesy of Jean de Leon, MD, Medical Director, Baylor Specialty Hospital.
18. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers/Injuries: The International Guideline 2019*. Emily Haesler (Ed.). EPUAP/NPIAP/PPIA:2019
19. Arjo data on file.

At Arjo, we believe that empowering movement within healthcare environments is essential to quality care. Our products and solutions are designed to promote a safe and dignified experience through patient handling, medical beds, personal hygiene, disinfection, diagnostics, and the prevention of pressure injuries and venous thromboembolism. With over 6500 people worldwide and 65 years caring for patients and healthcare professionals, we are committed to driving healthier outcomes for people facing mobility challenges.

Arjo Inc. · 2349 West Lake Street · Addison, Illinois 60101 · 800-323-1245 · www.arjo.us

Arjo Canada Inc. · 90 Matheson Blvd West, Suite 350 · Mississauga, ON, L5R 3R3 · 800-665-4831 · Info.Canada@arjo.com · www.arjo.ca

