



**Cardinal Health Wings™ Premium Underpads**

Effectively manage  
friction to reduce the  
risk of Incontinence  
Associated Dermatitis



**CardinalHealth**

*Essential to care™*

# Friction and shear

**Friction**, the resistance to motion when one surface contacts another, is a major contributor to skin breakdown. This can lead to Incontinence Associated Dermatitis, which is often a precursor to Pressure Injuries. Cardinal Health Wings™ Premium Underpads feature a SuperSoft spunbound non-woven top sheet and dual-action core, designed to reduce friction and lock in excess moisture in patients at risk of developing pressure injuries.<sup>1</sup>

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**Static friction** is friction between two or more solid objects that are not moving relative to each other. For example, static friction can prevent an object from sliding down a sloped surface.

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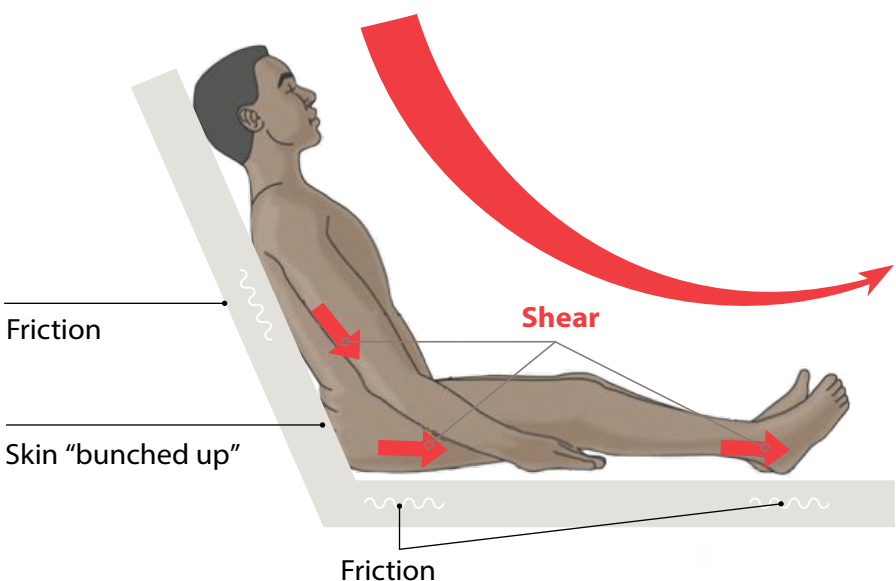
**Kinetic friction** (also known as dynamic friction or sliding friction) occurs when two objects are moving relative to each other and rub together (like a sled on the ground).

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**Shear** (shear stress) is the force per unit area exerted parallel to the plane of interest.

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**Shear strain** is a distortion or deformation of the tissue as a result of shear stress.



**Pressure injuries can form from both kinds of friction and shear strain.**



# Conditions impacting skin integrity

## **Excess moisture**

- Incontinence
- Wound exudate
- Perspiration

## **Stress**

- Friction
- Shear
- Pressure

## **Microclimate**

- Temperature
- pH balance
- Bioburden

## **Trauma**

- Surgery
- Burn
- Laceration

## **Nutrition insufficiency**

- Nutrition
- Hydration

**Wings™ Premium Underpads address three common factors causing pressure injuries<sup>2</sup>:**

**1**

Friction and shear

**2**

Excess moisture

**3**

Sustained pressure

# Why it matters

Skin breakdown, including pressure injuries, is a significant, costly medical problem affecting 2.5 million people each year. Complications can result in decreased quality of life, increased morbidity and increased mortality rates. Protecting against friction and excess moisture can help improve skin integrity.

## Avoidable complications



**60,000**

patients die as a direct result of a pressure injury each year<sup>3</sup>

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**257,412**

pressure injuries could have been prevented in 2007<sup>4</sup>

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**17,000**

pressure injury related lawsuits annually<sup>5</sup>

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**\$11 billion**  
per year<sup>6</sup>

(U.S. expenditures)

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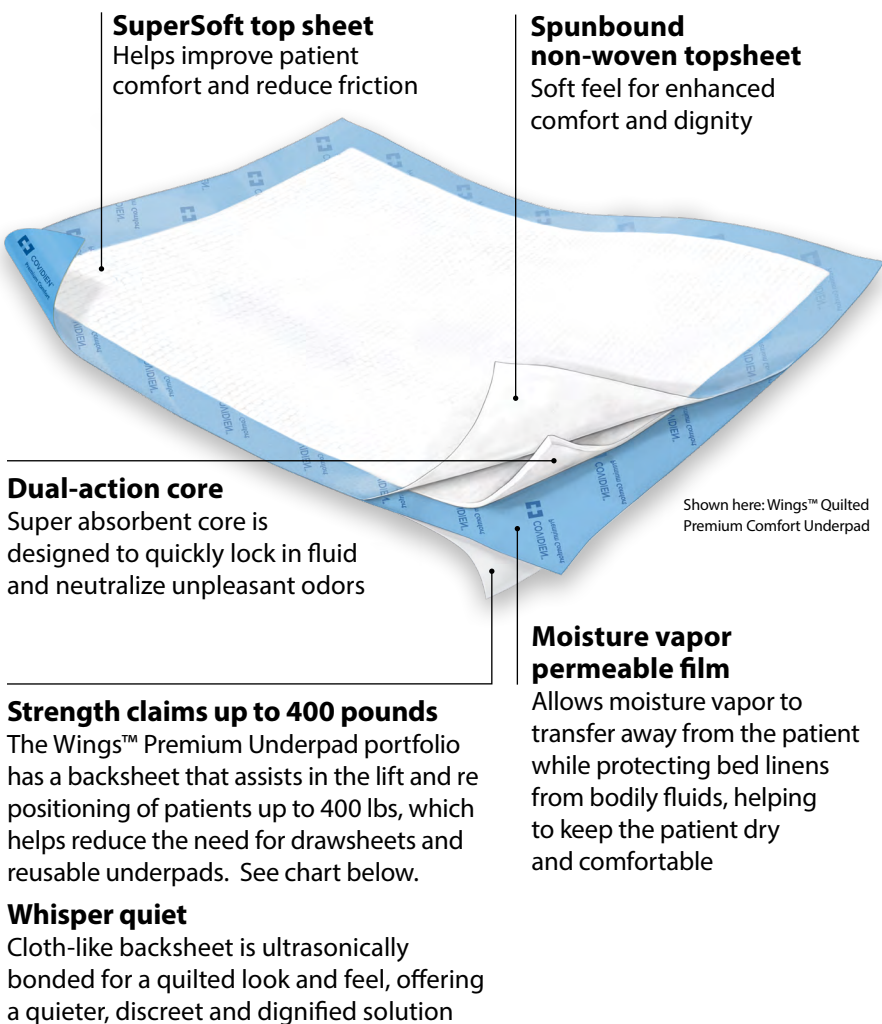
IAD can add over

**34 minutes<sup>7</sup>**

of staff time per day.

# Wings™ Premium Underpads

Paired with improved treatment strategies, The Wings™ Premium Underpad portfolio is the cost-effective answer to the rising cost of pressure injury treatment and litigation.



**SuperSoft top sheet**  
Helps improve patient comfort and reduce friction

**Spunbound non-woven topsheet**  
Soft feel for enhanced comfort and dignity

**Dual-action core**  
Super absorbent core is designed to quickly lock in fluid and neutralize unpleasant odors

Shown here: Wings™ Quilted Premium Comfort Underpad

**Strength claims up to 400 pounds**  
The Wings™ Premium Underpad portfolio has a backsheet that assists in the lift and repositioning of patients up to 400 lbs, which helps reduce the need for drawsheets and reusable underpads. See chart below.

**Moisture vapor permeable film**  
Allows moisture vapor to transfer away from the patient while protecting bed linens from bodily fluids, helping to keep the patient dry and comfortable

**Whisper quiet**  
Cloth-like backsheet is ultrasonically bonded for a quilted look and feel, offering a quieter, discreet and dignified solution

Item code	Description	Size	Weight claim
PXXL	Wings™ Quilted Premium Underpad, 2XL	40 in. x 57 in.	400 pounds
P3036PS	Wings™ Quilted Premium Strength Underpad	30 in. x 36 in.	375 pounds
P3036C	Wings™ Quilted Premium Comfort Underpad	30 in. x 36 in.	300 pounds
P3036MVP	Wings™ Quilted Premium MVP Underpad	30 in. x 36 in.	N/A

## More sizes available

See full catalog or your Cardinal Health representative for details.

1. National Pressure Ulcer Advisory Panel Support Surface Standards Initiative. Terms and definitions related to support surfaces. [http://www.npuap.org/wp-content/uploads/2012/03/NPUAP\\_531\\_TD.pdf](http://www.npuap.org/wp-content/uploads/2012/03/NPUAP_531_TD.pdf). Accessed March 5, 2018.
2. Dorner B, Posthauer M, Thomas D. The role of nutrition in pressure ulcer prevention and treatment: national pressure ulcer advisory white paper. National Pressure Ulcer Advisory Panel; 2009.
3. Preventing Pressure Ulcers in Hospitals. Content last reviewed October 2014. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/professionals/systemshospital/pressureulcertoolkit/index.html>
4. New opportunities to improve pressure ulcer prevention and treatment. Wounds Research/AAWC Website. <https://www.woundsresearch.com/content/new-opportunities-improve-pressure-ulcer-prevention-and-treatment>. Accessed March 5, 2018.
5. Are we ready for this change?. Content last reviewed October 2014. Agency for Healthcare Research and Quality, Rockville, MD. <https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu1.html>
6. Preventing pressure ulcers in hospitals. Agency for Healthcare Research and Quality Website. <https://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool1.html>. Accessed March 5, 2018.
7. Ousey K, O'Connor L. (2017). Incontinence-Associated Dermatitis Made Easy. Wounds UK.

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