



## **Dignity® Briefs** with Curly Fiber

Study finds briefs with Curly Fiber may prevent, reduce severity, and promote healing of Incontinence Associated Skin Damage (IASD).



### Skin pH and Incontinence Associated Skin Damage<sup>1</sup>

### A widespread problem in many long-term care settings



Despite increased awareness and improvements in care, many nursing homes and their residents continue to experience the effects of Incontinence Associated Skin Damage or IASD.

- Incontinence Associated Skin Damage (IASD) is an inflammation of the skin due to chronic incontinence and may be accompanied by redness, blistering, erosion and secondary infection.
- IASD accompanied by unrelieved pressure results in a **5-fold increase in pressure** ulcer risks.<sup>2</sup>

### Incontinence Associated Skin Damage is oftentimes referred to as one of the following:

Incontinence Associated Dermatitis (IAD) / Moisture Associated Skin Damage (MASD) / Adult diaper rash/dermatitis / Perineal rash/dermatitis

They all reference the same – inflammation caused by an irritant such as urine and/or feces contacting the skin resulting in skin damage.

### Skin pH & IASD Old age Decreased Cause skin pH barrier function **Urine** to increase, Increased **Feces** leading to... skin permeablity Some skincare Increased products microorganism overgrowth **Standard brief**

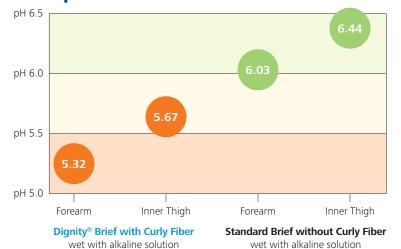
# Study finds briefs with Curly Fiber may prevent, reduce severity, and promote healing of Incontinence Associated Skin Damage (IASD).<sup>1</sup>

**Study Title**: Absorbent briefs containing Curly Fiber lower (acidify) skin pH reducing risk for incontinence associated skin damage in older nursing home residents<sup>1</sup>

Authors: Donna Z. Bliss et al.

**Background**: Alkaline skin pH is a risk factor for Incontinence Associated Skin Damage (IASD). A more acidic skin pH reduces risk of IASD and may benefit incontinent adults.<sup>1</sup>

### **Skin pH Results**



### **Clinical Conclusions**

Dignity® Briefs with Curly Fiber significantly lower/acidify pH of skin exposed to an alkaline solution with pH similar to urine/feces while standard briefs do not.¹

Dignity® Briefs with Curly Fiber have potential to prevent IASD, reduce IASD severity, and promote IASD healing in NH residents.<sup>1</sup>

Note: the pH scale is a logarithmic scale, and each unit of measure is a ten-fold change of hydrogen ion concentration.

### How clinical benefits lead to economical advantages

The clinical benefit of Dignity® Briefs with Curly Fiber is likely to offset some episodes of mild to moderate IASD compared to standard industry briefs and potentially leads to economic benefits for a facility.

#### The cost of treating IASD

\$169 PER EPISODE

Average cost to treat one mild to moderate IASD episode in one resident<sup>3</sup> (adjusted for inflation).<sup>4</sup>

\$2,535

Average cost to treat ongoing IASD in one resident<sup>3</sup> (adjusted for inflation).<sup>4</sup>

## IASD occurrence can be up to 52%

This example assumes a 20% occurrence in a 100 bed LTC facility with 75% incontinence.

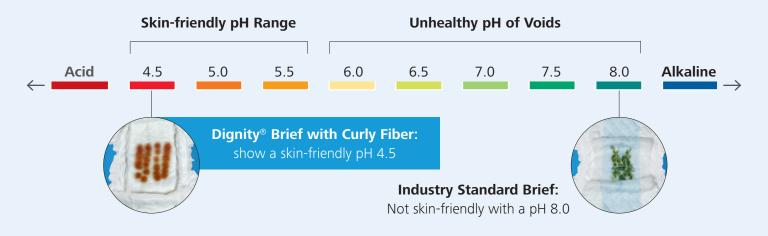


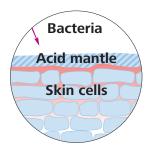
# Only HARTMANN incontinence products with Curly Fiber reduce the high pH of voids to a skin-friendly pH 5.5.°

### Maintaining skin health, dignity and quality of life

### Standard pH test: Dignity Briefs® with Curly Fiber vs. Industry Standard Brief6

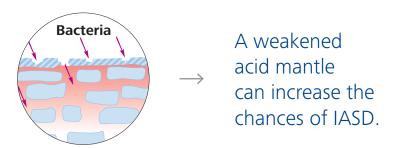
Test uses 200 ml of synthetic urine added to each brief followed by the application of a wide-range pH indicator.





### **Healthy acid mantle**

- Healthy skin has a slightly acidic value of pH 4.5 to 5.5.
- The acid mantle is an acidic film on the surface of the skin that **acts as a barrier** to bacteria, fungi, and other infections.



### Weakened acid mantle

- Skin pH naturally increases with age (up to 6.0).<sup>7</sup>
- Urine, fecal matter, and perspiration may increase skin pH up to pH 8.0.
- Elevated pH is associated with a breakdown of the acid mantle, allowing bacteria to penetrate skin cells and cause IASD.
- Maceration and friction result in excoriation, infection, and other complications.

## Curly Fiber: a proprietary component that makes the difference

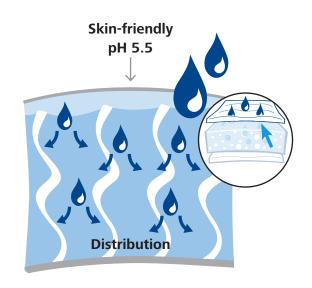
Voids overhydrate skin and increase its pH.<sup>8</sup> Curly Fiber instantly reduces the high pH to a skin-friendly pH 5.5, and maintains the pH of the natural skin surface.<sup>7</sup>

#### What is it?

Curly Fiber is a specially developed, spiral-shaped cellulose fiber used in the upper layer of the absorbent core next to the skin.

#### What does it do?

This proprietary component buffers the pH of voids. Curly Fiber also helps draw the fluid into the superabsorbent core and distributes it.



### Curly Fiber helps maintain a healthy skin environment by:

• Maintaining a skin-healthy pH value • Preserving the acid mantle • Facilitating rapid fluid distribution within the brief



# Standard in most Dignity® Briefs with Curly Fiber: The inner cuff system® provides an additional inner barrier.

When the wearer is lying on his or her side or moves when voiding, the **risk of leakage increases**.

Dignity Briefs® with Curly Fiber now come **standard** with an inner cuff system<sup>9</sup> that enhances the quality of life by helping prevent embarrassing leakage.

The inner cuff system **reduces caregiver clean-up time**.



# Dignity® Briefs with Curly Fiber maintain a skin-friendly environment of pH 4.5-5.5 even after multiple voids.

### The Situation

Standard briefs do not buffer the high pH of voids to a skin-friendly pH 5.5, and this creates unhealthy alkaline skin environment.

### The Solution

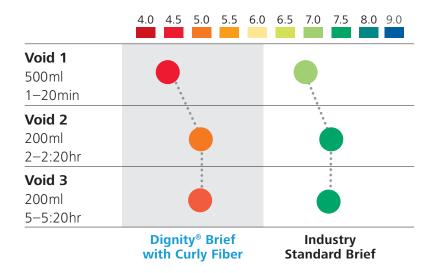
### **Dignity® Briefs** with Curly Fiber

- Instantly reduce the high pH value of voids 7
- Maintain a skin-friendly pH 5.5 value<sup>7</sup>
- Buffer pH for up to 5 hours<sup>7</sup> (may be especially beneficial during sleep)

# pH test: Dignity® Briefs with Curly Fiber vs. Industry Standard Brief

To simulate the effect of repeated voiding, our brief with Curly Fiber and an industry standard brief received three applications of synthetic urine, a pH 6.8 test solution. Surface pH was measured at designated intervals.

At each interval over a 5-hour period, our brief with Curly Fiber had a skin-friendly pH in the 4-5 range. With a pH in the 6-7 range, the industry standard brief without Curly Fiber was more alkaline, i.e., less skin friendly.



### **Dignity® Briefs** with Curly Fiber:

Skin protection begins immediately and lasts for over 5 hours, which may be especially beneficial during sleep.



Rest easy with Dignity® P.M. Overnight™ Briefs with Curly Fiber.

Designed for overnight protection, extended wear or very heavy incontinence.

# Dignity® Briefs with Curly Fiber: Premium care with Active Skin Protection and leakage protection





 Inner cuff system for maximized leakage protection



The 3-layer absorbent core guides fluids quickly into its center, locking both urine and odor safely inside



2 **Hypoallergenic** materials minimize the risk for allergic reactions



Superabsorbent polymer reduces ammonia formation and neutralizes unpleasant odor



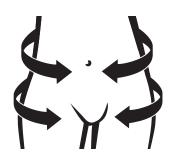
3 Air Active® material in the hip area increases air-permeability and promotes a skin-healthy environment



**6 Soft, cloth-like backsheet** provides a smooth, comfortable feel

# Guide to the appropriate size for maximum performance and leakage protection.

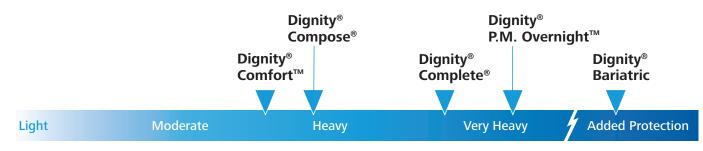
### 1. **Measure hips or waist** (whichever is larger)



### 2. Select corresponding Dignity® Brief size

| Size      | Waist/Hips          | Brief Color |
|-----------|---------------------|-------------|
| Youth     | 15"-22" (38-56cm)   | White       |
| Small     | 20"-31" (51-79cm)   | White       |
| Medium    | 32"-44" (81-112cm)  | White       |
| Large     | 5"-58" (114-147cm)  | Blue        |
| X-Large   | 59"-64" (150-163cm) | Tan         |
| XX-Large  | 63"-68" (160-174cm) | Green       |
| Bariatric | 63"-94" (160-239cm) | White       |

### **Dignity® Briefs absorbency scale**



Added Protection is about 18% more absorbent than Dignity® P.M. Overnight briefs.



## Dignity<sup>®</sup> Comfort<sup>™</sup> with Curly Fiber

Basic, fitted brief for moderate to heavy incontinence, and does not have the inner cuff system.



### Dignity® Compose® with Curly Fiber

Most popular adult brief for moderate to heavy incontinence.



### Dignity® Complete® with Curly Fiber

Highest performing Dignity® day-brief for heavy incontinence.



### Dignity<sup>®</sup> P.M. Overnight<sup>™</sup> with Curly Fiber

Designed for overnight protection extended wear or very heavy incontinence.



### **Dignity® Bariatric Brief**

Bariatric size brief for very heavy protection. Does not have Curly Fiber.



## Ordering Information

For more information or to place an order, please contact your distributor or call our Customer Service Center at **1-800-243-2294**.

| Dignity Briefs® with Curly Fiber  | Order<br>no. | Size      | Brief<br>color | Waist/Hips           | Briefs<br>per bag | Bags<br>per case | Briefs<br>per case |
|---|--------------|-----------|----------------|----------------------|-------------------|------------------|--------------------|
| Dignity® P.M. Overnight™ with Curly Fiber Very heavy protection/ Overnight extended-wearing | 222493       | Medium    | White          | 32"–44" (81–112cm)   | 24                | 4                | 96                 |
|   | 222495       | Large     | Blue           | 45"-58" (114-147cm)  | 18                | 4                | 72                 |
|   | 222496       | X-Large   | Tan            | 59"-64" (150-163cm)  | 20                | 3                | 60                 |
|   | 222497       | XX-Large  | Green          | 63"-68" (160-174cm)  | 24                | 2                | 48                 |
| Dignity® Complete® with Curly Fiber Very heavy protection                                   | 222453       | Medium    | White          | 32"-44" (81-112cm)   | 24                | 4                | 96                 |
|   | 222455       | Large     | Blue           | 45"-58" (114-147cm)  | 18                | 4                | 72                 |
|   | 222456       | X-Large   | Tan            | 59"-64" (150-163cm)  | 20                | 3                | 60                 |
|   | 222457       | XX-Large  | Green          | 63"-68" (160-174cm)  | 24                | 2                | 48                 |
| Dignity® Compose® with Curly Fiber Heavy protection   | 222420       | Youth     | White          | 15"-22" (38-56cm)    | 24                | 4                | 96                 |
|   | 222421       | Small     | White          | 20"-31" (51-79cm)    | 24                | 4                | 96                 |
|   | 222423       | Medium    | White          | 32"-44" (81-112cm)   | 24                | 4                | 96                 |
|   | 222425       | Large     | Blue           | 45"-58" (114-147cm)  | 18                | 4                | 72                 |
|   | 222426       | X-Large   | Tan            | 59"-64" (150-163cm)  | 20                | 3                | 60                 |
|   | 222427       | XX-Large  | Green          | 63"-68" (160-174cm)  | 24                | 2                | 48                 |
| Dignity® Comfort™<br>with Curly Fiber<br>Heavy protection                                   | 222313       | Medium    | White          | 32"-44" (81-112cm)   | 24                | 4                | 96                 |
|   | 222315       | Large     | Blue           | 45"-58" (114-147cm)  | 18                | 4                | 72                 |
|   | 222316       | X-Large   | Tan            | 59"-64" (150-163cm)  | 20                | 3                | 60                 |
|   | 222317       | XX-Large  | Green          | 63"-68" (160-174cm)  | 24                | 2                | 48                 |
| Bariatric Brief Size  |              |           |                |                      |                   |                  |                    |
| <b>Dignity</b> ® <b>Bariatric Brief</b> <sup>10</sup><br>Very heavy protection              | 32000        | Bariatric | White          | 63"-94" (160-239 cm) | 8                 | 4                | 32                 |

<sup>\*</sup> ACTIVE SKIN PROTECTION means these briefs include Curly Fiber, which instantly converts the high pH value of voids to a skin-friendly pH 5.5; hypoallergenic materials, which have an extremely low potential for causing allergic reactions; superabsorbent polymer to lock-in fluids and maintain a healthy, dry environment; and cloth-like, breathable side panels for increased air-permeability and optimum skin health.

<sup>&</sup>lt;sup>1</sup> Bliss et al., Absorbent Briefs Containing Curly Fiber Lower (Acidify) Skin pH Reducing Risk for Incontinence Associated Skin Damage in Older Nursing Home Residents; WOCN Conference Symposium 2016

<sup>&</sup>lt;sup>2</sup> Melter, Pressure Ulcer Assessment and Treatment; Wild Iris Medical Education 2014; 17

<sup>&</sup>lt;sup>3</sup> Bliss et al., An economic evaluation of four skin damage prevention regimens in nursing home residents with incontinence: economics of skin damage prevention; J Wound Ostomy Continence Nurs. 2007;34(2): 143–152

<sup>4</sup> www.usinflationcalculator.com, results may vary

<sup>&</sup>lt;sup>5</sup> Black et al., MASD Part 2: Incontinence-Associated Dermatitis and Intertriginous Dermatitis; J Wound Ostomy Continence Nurs. 2011; 38(4): 359–370

<sup>&</sup>lt;sup>6</sup> Beguin et al., Improving diaper design to address incontinence associated dermatitis; BMC Geriatrics 2010, 10:86

<sup>&</sup>lt;sup>7</sup> Blaak et al., Treatment of Aged Skin with a pH 4 Skin Care Product Normalizes Increased Skin Surface pH and Improves Barrier Function: Results of a Pilot Study; Journal of Cosmetics, Dermatological Sciences and Applications, 2011, 1, 50–58

<sup>&</sup>lt;sup>8</sup> Gray et al., Incontinence-Associated Dermatitis: A Comprehensive Review and Update; J Wound Ostomy Continence Nurs. 2012; 39(1): 61–74

 $<sup>^9</sup>$  Dignity  $^{\! \odot}$  Comfort  $^{\! \top}$  Brief does not have an inner cuff system.

<sup>&</sup>lt;sup>10</sup> Dignity® Bariatric Brief does not have Curly Fiber.

For more information or to place an order, please contact your distributor or call our Customer Service Center at **1-800-243-2294**.

To see a video clip of how products with Curly Fiber instantly reduce the alkaline pH of voids to a skin friendly pH 5.5, please visit **activeskinprotection.com** 

To learn more about HARTMANN products, please visit hartmannusa.com

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hartmannusa.com

